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A WEEKLY REVIEW OF MEDICINE

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INTRAVASCULAR ANTISEPSIS.*

By CHARLES CLIFFORD BARROWS, M. D.,
NEW YORK.

The underlying principles which regulate the treatment of general puerperal infection should differ in no manner from those which are employed in the treatment of general sepsis from any other source dependent upon wound infection. The avenues of entrance of the infecting bacteria are practically the same in all cases, and the indications for treatment should be based upon the same conditions. It is a self-evident proposition that the source of the infection should, if such a thing is possible, be cut off at once, that all infecting material should be removed from the wounds through which it is entering the circulation, that free and competent drainage should be at once established and maintained, and that the patient should be put into the best possible general condition in order that a sustained and successful defence may be made against the assaults of the toxic bacteria upon the health and life of the patient. Although the writer has very definite and positive views on the surgical, as well as the general, treatment of these cases, it is not permitted to discuss them here, because the plan of this meeting does not provide for that. However, it does not seem improper to insist, and I am sure you will all agree with me, that but little hope of success can be looked for if the source of infection cannot be removed. I believe we are unanimous on this point, although we may differ widely on what we individually believe to be the best means to be adopted to accomplish this purpose. For instance, it is advised by some of the very best authorities that in cases of supposed septic infection following childbirth the interior of the uterus should be examined by the finger as a routine practice. Now, the writer is unwilling to subscribe to such advice, because he has found in his own experience, which has not been limited, that the finger cannot be safely introduced

into the uterine cavity without injury to the softened tissues, except in a very small percentage of cases where the cervical canal is unusually patent and the uterine cavity large. And again, even if the conditions are such as to admit of this form of manipulation, the introduction of the naked finger into the uterine cavity to my mind is a hazardous procedure. When the finger is properly protected and the conditions such as not to forbid it, of course it is the most satisfactory means of diagnosis as to the conditions within the uterus. Notwithstanding the fact that the surgical treatment of a case of puerperal infection may be carried out to our satisfaction in every detail and the source of infection entirely removed or its avenues of entrance completely blocked, in spite of every effort we may make, our patient, in many cases, sooner or later dies. This unfortunately is by no means uncommon, it having been estimated that from 5 to 10 per cent. of all deaths in women of a childbearing age are due to this cause. These facts are so well known and so thoroughly appreciated by the profession that it is on the alert for any remedy which may hold out hope in such a direful state of affairs.

When Marmorek, in 1895, announced the discovery of an antistreptococcic serum the idea was seized with avidity, especially because of its support by the bacteriologists generally; but it soon proved itself of no avail, and in a report in May, 1899, by Professor J. Whitridge Williams, to the American Gynecological Society, of a committee of which he was chairman, he showed that in 101 cases of undoubted streptococcic infection there were 33 deaths—truly an appalling mortality. I believe I am safe in saying that the serum method of treatment has been practically abandoned. The application of Crédé ointment and the introduction of the silver salts under the skin hardly seem rational, and it would be as reasonable to attempt to take the fortress of Gibraltar with a popgun as to cure acute general septicæmia by the ingestion of fresh brewer's yeast, although this has been recommended by a distinguished bacteriologist.

In puerperal infection many organisms have been demonstrated, any one of which might be responsi-

* Read before the Academy of Medicine, Section in Gynecology, May 21, 1903.

ble for a fatal result, and probably in a large proportion of cases the infection is a mixed one; but it is well accepted by most authorities that the *Streptococcus pyogenes* is the most frequent cause of the fatal forms of septic infection.

I am thoroughly in accord with Whitridge Williams in believing that the term *sapraemia* has been greatly abused, and have no doubt that streptococci will be found in a large majority of cases which are reported under this name. Such has been the experience of Bumm and von Franqué, as quoted by Williams in his recent classical work on obstetrics.

Bacteriological examinations are of the greatest importance in the diagnosis and management of cases of septic infection, but unfortunately few practitioners away from the large centres of population are qualified to carry out such investigations, and, indeed, the personal equation among the most accomplished bacteriologists is by no means to be entirely eliminated. These difficulties make it necessary, so far as it is possible to do so, to offer some clinical guide for treatment, which may be easy of application by those who have not the personal qualifications or the means at hand for the proper bacteriological investigations.

The methods of medical and surgical treatment have been laid before you in detail, so that if I were permitted to do so, it would be a work of supererogation on my part to discuss them.

There are cases, many cases, of septic infection, in which, in spite of the fact that every detail of surgical treatment has been faithfully carried out and every effort to sustain the patient has been made—these efforts being perhaps followed by temporary improvement—the symptoms return with renewed vigor and the patient dies. Such cases are those where the infection has reached the general circulation and local treatment no longer avails. In the treatment of such cases I believe that the application of intravascular antiseptics, as suggested by me in January of this year, may lead up to the employment of methods of medication productive of at least some good in these cases which have heretofore practically been abandoned to the *vis medicatrix naturæ*.

The idea of introducing into the general circulation some remedy to counteract conditions existing therein which threaten life is by no means new. Many years ago, while serving on the Western Plains as a medical officer in the army, the writer had considerable experience with intravenous injections of potassium permanganate for the bite of the rattlesnake, and of the Gila monster. While these experiments have no bearing on the question under discussion, they were responsible for the suggestion to the writer's mind of the introduction into the general circulation of some principle which would

destroy the bacteria or inhibit their development in the blood, and neutralize the toxins which they are supposed to produce.

At a meeting of the New York Obstetrical Society, held on January 13, 1903, I reported the following case:

The patient, a negress, of slight frame, twenty-six years old and married, was admitted to ward 22, Bellevue Hospital, on December 25, 1902. She was in labor, and at the time of her admission was having a chill. Her temperature was 104.2° F., her pulse was 124, and she was breathing at the rate of 30 a minute. There was a fetid, bloody discharge from the vagina. She was delivered at six o'clock on the following morning of a macerated, decomposed, female foetus of about six months' growth. After delivery of the secundines the patient was given an intrauterine injection of a 1 to 10,000 solution of mercury bichloride. One hour after delivery, at 7 a. m., she had a severe chill accompanied by a rise of temperature from 99.4° at 3 a. m. to 105° at 7 a. m. At 2 p. m. the same afternoon her uterus was irrigated with hydrogen peroxide, followed by two quarts of normal saline solution. A considerable quantity of clots and shreds of tissue was obtained as a result of the douche. She was then transferred to the gynecological service, ward 23, where she was curetted on December 27th, and a large amount of decomposed membranes and placental tissue removed. She then showed signs and symptoms of pronounced general sepsis. On December 25th, the day of her admission, a microscopical examination of the blood was made, which showed the absence of malarial organisms, and a leucocytosis of 18,000. On December 30th, a blood culture was taken by Dr. Buxton in four flasks of bouillon, which gave a pure culture of streptococcus. At this time her urine showed albumin to a considerable extent, but no casts. The patient was seen by the writer then for the first time. Her temperature was 108°, her pulse 150 to 160, small and thready, and her respiration 38. She was in a low, muttering delirium. There were present absolutely no local signs or symptoms, and from all external appearances the patient was rapidly approaching death from a profound general sepsis. She was at once given an intravenous infusion of 500 cubic centimetres of a 1 to 5000 aqueous solution of formalin. In three hours her temperature had fallen to 105°, and in six hours it had fallen to 101°, her pulse being 104 and her respiration 28. For three hours the temperature remained at 101°, when it gradually began to rise until it reached 103°, her pulse having risen to 120. It remained at 103° for three hours, when it plunged downward, until in three hours the thermometer registered by the rectum only 95°. The pulse had then fallen to 86, and the respiration to 22. In twelve hours the temperature had reached 102°, and the pulse 110. It then dropped to normal, but rapidly rose to 103°, although the pulse did not go higher than 112. Although a second blood culture had been taken, there had not been time for a report, so it was decided to give her a second infusion, 750 cubic centimetres of the same solution being then given her.

There was a slight chill without a further rise of temperature, which, in the course of twelve hours, fell to normal, where it has practically been since. The woman is now entirely well. Several blood cultures have been made, and none taken since the first infusion have shown any streptococci. Frequent microscopical examinations of the blood have been made, and no morphological changes have been found in the red corpuscles. The albumin in the urine has cleared up, and no blood has appeared in this secretion.

Since the publication of this case, followed by a short article on the subject, in the *New York Medical Journal* of January 31, 1903, under the caption, Treatment of Acute Septicæmia by Intravenous Infusions of Formaldehyde, I have suggested that in cases that had failed to respond to other forms of treatment and that were apparently in danger of dissolution, and where the proper surgical conditions had been fulfilled, an intravenous infusion of from half a litre to a litre of a 1 to 5000 solution of formalin be employed, the treatment being repeated one or more times if necessary.

Many experiments have been made and many adverse opinions have been expressed most of these being based on the experiments reported by Dr. William H. Park and Dr. William A. Payne, of the New York Board of Health, to the New York Pathological Society on February 11, 1903. Experiments at the hands of such distinguished bacteriologists as Dr. Park and his associate, Dr. Payne, and their expressed opinions based upon these experiments are certainly worthy of the utmost consideration.

No mention is made in the report of these experiments as to the interval of time between the injection of the streptococcic culture and the solution of formaldehyde, the latter being apparently given immediately after the infecting material was injected. This is, it seems to me, a question of some importance clinically, since it would hardly be supposed that by this procedure a condition had been produced in the rabbit which was analogous to advanced puerperal septic infection in the human subject.

I pointed out in my article in the *New York Medical Journal* of January 31st, that the rabbit, because of his feeble hold on life, was a very poor subject for experiments of this sort, those the subject of double traumatism of any sort being surely at a great disadvantage.

Conclusions drawn from the experiments of Dr. Park and Dr. Payne have been freely expressed in the medical and lay press, that the injections of solutions of formaldehyde were not only useless, but were in themselves dangerous. Dr. Snodgrass

and Dr. Elbrecht, of St. Louis, have also reported experiments upon rabbits with somewhat different results.

I have mentioned these experiments and conclusions at length because of the source from which they emanate, rather than of the bearing they may have on the subject under discussion. As to the danger in the employment of such solutions of formaldehyde as the writer has suggested, it would hardly seem necessary to resort to experiments on rabbits when one considers the work of many observers such as Jenks, of Memphis; Nelson, of the University of Virginia; and above all, the brilliant work of Maguire, of London, who has been using much stronger solutions for several years in a very extensive series of cases in the treatment of pulmonary tuberculosis, without injury of any kind to the patient. My own experience has borne out these conclusions, and personally I am quite satisfied that one need have no fears in this direction. No injury has been done to the blood in the cases under my observation, and the convalescence has been unusually rapid and satisfactory. Some importance has been given to certain alarming symptoms of cyanosis and syncope which were present in a case reported by one observer, but as such symptoms are by no means uncommon during the intravenous infusion of normal salt solution when air is permitted to enter the circulation, I question very much whether the formaldehyde could be held accountable for the trouble in this instance. In this connection it would, perhaps, be wise to say a few words as to the technique of the procedure.

A freshly made 1 to 5000 solution of formalin (40 per cent. formaldehyde in water) in freshly prepared normal salt solution at a temperature of 100° F. is injected into any superficial vein, the median basilic or cephalic being the most convenient for the purpose. An ordinary glass irrigation apparatus with rubber tube and metal nozzle will answer perfectly. The vein should be exposed and lifted upon a probe or director before it is opened. In opening the vein a snip with the scissors will give an aperture easier of entrance than a longitudinal incision with a knife. Care should be taken that the nozzle is in the vein and not in the sheath. If this latter accident happens it can be readily appreciated by the tumefaction which occurs in the neighboring tissues at once, this, of course, being absent if the vein has been properly entered. Care, of course, should be taken to prevent the entrance of air into the vein, in order to avoid such symptoms as have been mentioned above. The fluid should be permitted to enter the circulation slowly, the amount injected

depending somewhat upon the arterial tension and general character of the pulse.

In addition to the case already reported, the following cases may be of interest.

In this connection it is only fair to myself to say that all my work has been at a standstill for nearly three months, because of an enforced idleness occasioned by a fractured patella from which I am not wholly recovered. This will account for the few cases under my own personal care that I have to report. The cases not treated by myself were treated in accordance with my personal instructions, and in most instances after personal consultation with me by the physicians in whose hands they were.

CASE II.—C. B., twenty-eight years old, and married nine years, was admitted to ward 23, Bellevue Hospital, on March 10, 1903, with the following history:

Her family and previous history were negative so far as the present illness is concerned. Her menstruation has been painless and regular, except when interrupted by pregnancy. She has been delivered of four children, the first eight years ago, and the last on March 2, 1903. Her labors have been non-instrumental and not difficult, and she has had no fever except with the present confinement. On March 2nd the patient was delivered of a full term child. The labor was easy and all seemed to go well until March 6th, the fifth day of her puerperium. The discharges were apparently normal in character, but by this time had become quite scanty. The patient had a chill with a rapid rise of temperature to 103° F. The family physician attempted a digital exploration of the uterus without much success, and as the symptoms were not relieved he curetted the uterus, following the curetting by a carbolyzed intrauterine douche, the patient having had three such douches prior to the curetting, which occurred on March 9th, the eighth day after delivery. The following day the patient was brought by ambulance to the hospital. On admission her temperature was 104° , her pulse 128, and her respiration 28. A bacteriological examination of the uterine discharges revealed the presence of streptococci in abundance.

At 9 a. m., March 11th, the day following the patient's admission, the temperature was 103° , the pulse 120, respiration 26. At six o'clock in the evening of the same day the temperature had risen to 105° , the pulse to 130, and the respiration to 36 per minute. The patient's general condition was much worse, her face was pinched, her expression anxious, her skin extremely pale and bathed in cold sweat, her respiration rapid and sighing, her pupils dilated. Her nails were deeply cyanotic, her abdomen was distended and tympanitic, her bowels were constipated. At 7 a. m. 750 cubic centimetres of 1 to 5000 formalin was introduced into the median basilic vein by Dr. Niles, of the house staff. One hour afterwards the patient had a sharp chill. At 9.30 o'clock the temperature was 104° , pulse 120, and respiration 36. At 10.30, two hours after the infusion, the temperature was 106° ,

the pulse 128, and the respiration 36. The temperature then fell rapidly until at midnight the thermometer registered 101° , the pulse was 104, and the respiration 28. The patient's general condition seemed greatly improved, and she had fallen asleep. At 6 a. m. of the next day her temperature was 99° , her pulse 100, and her respiration 24. By 12, midnight, of the same day, the temperature had risen to 103° , but the pulse was only 104, and the respiration 28. The following morning, March 13th, at 9, the temperature was 102° , and the pulse 112. At three in the afternoon the temperature again began to rise, and by six it had reached 104.4° , but the pulse was only 108. At 7.15, a second intravenous infusion of 1,000 cubic centimetres of 1 to 5000 formalin in normal salt solution was given by Dr. Niles. This was followed by a chill, and by 9 o'clock the temperature had risen to 107.6° , the pulse being 100, and respiration 36, but the patient did not seem in an alarming condition, and expressed herself as feeling very comfortable. Within an hour the temperature had fallen to 100.4° , and the respiration to 28. The rapid respiration was doubtless due to the abdominal distention. As this continued, and as the patient's general condition had improved so much as to warrant it, an incision was made into Douglas's cul de sac and a small quantity of pus liberated, perhaps a drachm. From this time on the patient continued to make a satisfactory convalescence, and on April 22nd went back to her household duties entirely well. Repeated examinations of her blood during her convalescence and following the formaldehyde infusions, showed no morphological changes in the cellular elements.

CASE III.—This case occurred in the practice of Dr. F. B. Littlewood, one of my colleagues on the visiting staff of the New Rochelle Hospital, and the treatment was carried out with my cooperation. The case is reported by Dr. Littlewood.

Mrs. B., thirty years old, colored, third child. First two labors were difficult, and patient's convalescence after second labor was protracted. Third labor began January 24, 1903, with premature rupture of membranes.

Dr. Littlewood was called at 7 a. m., January 26th, and after an unsuccessful attempt to deliver with forceps, at 6.30 p. m. of the same day, he resorted to version and craniotomy of the after-coming head. The surroundings were such as to render it impossible to practise asepsis or any near approach to it, and considering the extensive laceration of the vaginal and uterine walls, as a result of the operation, it seemed inevitable that the patient must suffer from septic infection. At 11 o'clock on January 27th, the morning following delivery, her temperature was 100.6° , her pulse 102, and her respiration 18 per minute. The lochia were sufficient in quantity and not offensive. At 4 p. m., the temperature was 101° , and pulse 110, with a respiration of 20 per minute. The patient's condition grew steadily worse until on February 3rd, at 4 p. m., her temperature was 104° , pulse 140, and respiration 34.

At this time the patient's abdomen was enormously distended and tympanitic, there was a con-

stant involuntary faecal discharge from the rectum, and control of the bladder was lost. The patient was extremely weak, a low, muttering delirium being present. The lochia were not offensive, and careful exploration of the interior of the uterus revealed nothing. Dr. Littlewood, assisted by Dr. Emberson, then gave an intravenous infusion of 1,000 cubic centimetres of 1 to 5000 formalin in normal salt solution. This was followed by a severe chill, which was at its height at 6 o'clock, one hour after the infusion. By 10 o'clock, four hours afterward, the temperature had fallen to 100°, the pulse was 110, and the respiration 20. This was followed by a secondary rise of temperature, reaching 105.4°, with a corresponding elevation of pulse during the morning of the following day, but by 4 o'clock in the afternoon of the same day the temperature was 101°, the pulse 110, and the patient's general condition had very materially improved. The patient continued to improve so that by February 8th her morning and evening temperature were practically the same, 101°, pulse 100, and respiration 20. She had regained control of her bowels and bladder, and the delirium had disappeared; was cheerful and very hopeful.

On February 10th, the patient's morning temperature was 100°, pulse 100, and respiration 18. By 4 o'clock the temperature was 102.2°, pulse 130, and respiration 30. The patient had a bad night, and seemed to have relapsed into an alarming condition. Dr. Littlewood at 10 o'clock gave her a second intravenous infusion, quantity and character the same as the first. This was followed by the usual chill and reaction, with rapid improvement, so that at 11 o'clock the following day the temperature had fallen to 99.4°. Convalescence from this point was entirely satisfactory, and the patient was put upon general diet and permitted to sit up on March 3rd. No local treatment was employed except daily vaginal douches of 1 to 2000 formalin.

CASE IV.—This case is reported by Dr. J. H. Desmarais, of Bristol, Conn., who was in personal consultation with me during the treatment of the case. The patient suffered from a streptococcic infection as was proved by careful bacteriological examinations.

Mrs. P. B. was delivered by forceps on January 28, 1903, of a nine pound living child, after a tedious and difficult labor. Dr. Desmarais consulted me on February 4th, seven days after the accouchement. On February 2nd, a careful examination of the uterus was made, the cavity being free from any foreign matter and the discharge without offensive odor and very scanty. The patient's pulse was 140, weak and thready, the temperature was 103.5°, and respiration 30. Her physician washed out the uterus with a 1 to 5000 bichloride of mercury solution and introduced a packing of iodoform gauze. The following morning the temperature fell to 101.6°, but the pulse still remained high. On the following day, when I was consulted, the temperature was 105°, the pulse 150, and the respiration 39. The abdomen was greatly distended and tympanitic in the extreme; vomiting, expulsive in character, was almost constant; patient was de-

lirious and anxious, and a fatal result seemed inevitable. The patient, in accordance with my instructions, was then given an intravenous infusion of 650 cubic centimetres of solution of formalin 1 to 5000 in normal salt solution. This was followed by a chill and rise of temperature of a degree, which was quickly followed by a fall of pulse, temperature, and respiration, so that, in twelve hours after the infusion, the temperature was 100°, the pulse 90, and the respiration 24. The patient's whole aspect had changed. Sleep had come with the fall of temperature, and the patient awakened free from delirium, and expressed herself as being comfortable; vomiting ceased and the tympanites gradually subsided. The temperature continued to fall until the evening of the same day, so that twenty-four hours following the infusion the mercury registered normal. The patient's convalescence was unusually rapid and satisfactory, and no morphological changes could be found in her blood. On February 17th, two weeks after the infusion, she was up and about, well.

(To be concluded.)

A SIMPLE METHOD OF APPENDECTOMY.

BY EMIL RIES, M. D.,
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The methods of appendectomy can be divided into two classes, those with a stump and those without a stump. Those without a stump have been developed more recently, as the advantages and disadvantages of the original methods became better known and understood.

A short sketch of some types of operation with a stump—without any attempt at a complete enumeration of all methods ever employed—will form the best basis for a critical consideration of these methods.

Method I: The mesentery of the appendix is cut and ligated; a ligature is placed around the appendix near its base; the appendix is cut off above the ligature; the serosa is sutured over the stump.

There are several objections to this method:

First, a ligature placed around the base of the appendix presses together the mucosæ; but mucosa cannot heal to mucosa. This ligature therefore does not occlude the appendix.

Secondly, the piece of mucous membrane between the ligature and the cut surface cannot be regarded as aseptic. Infection may start from it.

Thirdly, the peritonæum sutured over this stump is really the only protection of the peritoneal cavity, and this protection is jeopardized by the septic stump and the possible septic accumulation between stump and peritoneal suture. If there is no peritoneal suture and the ligature around

the stump gives way or cuts through, fæcal extravasation and peritonitis or fæcal fistula or patulous stump opening in the abdominal wall, and recurrent abscess in the abdominal wall may follow.

Method II: The mesentery is treated as in Method I. Then a cuff of peritonæum and muscularis is stripped back from the appendix near its base, the mucous membrane is ligated at the base of the cuff and cut off; the small remnant of mucous membrane between ligature and cut surface of mucous membrane is cauterized with a strong antiseptic. Then the cuff is ligated over the stub of mucosa and the peritonæum sutured over it.

This method is an improvement over the first, as it takes into consideration the septic condition of the mucosa, and as it brings together the raw surfaces of the cuff over the stub of the mucosa. But the ligature of the mucosa is useless as shown above. Also the small piece of mucosa between the ligature and the cut surface is not absolutely aseptic, even if cauterized, as the depth to which the antiseptic may penetrate is an unknown quantity as well as the depth at which microorganisms may be present in the mucosa. There is, therefore, again the possibility of a septic accumulation between the stub of mucosa and ligature of the cuff. The ligature of the cuff may resist the pressure of this accumulation or it may not. Furthermore, if there is a stricture in the appendix between the ligature of the mucosa and the cæcum, the conditions are extremely favorable for a pathological accumulation in the stump of the appendix. The consequence may be that the ligature of the cuff bursts or cuts through and a fæcal fistula is formed if the conditions are favorable; and if they are not, peritonitis and death may result.

An additional peritoneal suture over the cuff, which buries the stump in a depression of the bowel wall, gives greater protection, but leaves a row of sutures in the abdominal cavity, which may give rise to adhesions.

Method III: The mesentery is cut off and ligated. The appendix is cut off near the base, a thermocautery is introduced into the stump, the mucosa burned out, the stump ligated, shortened as much as possible, and the cut surface cauterized again.

This method provides greater asepsis for the piece of appendix between ligature and cut surface. But the cauterized stump is unreliable as to healing and may give rise to adhesions.

Other methods of treating the stump, by the angiatribe or the electrohæmostat, are open to similar objections, as they leave more or less dead tissue in the peritoneal cavity, which may give rise

to adhesions. Also it is still unproved that they provide an efficient and lasting closure of the stump.

I am well aware of the fact that thousands of patients have been operated on successfully after these methods, but I have also had occasion to do secondary operations on patients who had been operated on by these methods by other surgeons. The dangers which I have described are very real ones, though in the vast majority of cases our good friend, the peritonæum, does its work so well, that even if our treatment of the stump is not ideal, the peritonæum insures the patient's safety.

The recognition of the peritonæum as the most efficient factor in the closure of openings in the bowel has found expression in more modern methods. Reliance on the peritonæum for quick and firm union is, however, only one of their principles. The other main feature is the complete abolition of the intraperitoneal stump, for two reasons: First, because the mucosa in the stump is always unsafe; secondly, because every method which forms an intraperitoneal stump, practically leaves an appendix, smaller than the original one, it is true, but nevertheless an appendix subject to the entire pathology of the original organ. The larger the stump left, the greater the risk of appendicitis recurring after appendectomy.

The ideal method, therefore, is one without any stump.

In cases where a perforation has taken place close to the base of the appendix or where necrosis of the appendix has extended into the cæcum near the appendix, complete excision of the appendix and closure of the opening in the bowel by Lembert sutures has always been used and gives good results. The only reasons why this radical extirpation of the appendix is not done in every case, I think, are first, the fact that the repair of such a comparatively large opening requires more time for suturing; and, secondly, the fear that the size of the opening might favor escape of fæcal matter in the course of the operation.

In cases where the base of the appendix is not severely diseased, and where it is patulous, the stump can be avoided without complete excision by simple inversion of the appendix into the cæcum. The first method which employed this principle goes under Dawbarn's name. In Dawbarn's method the appendix is cut off close to its base after a pursestring suture has been placed around the base; then with an instrument the stump of the appendix is dilated and inverted into the cæcum, and, while the instrument is being drawn back, the pursestring suture is closed. Over the pursestring a second pursestring may then be placed. There is then no

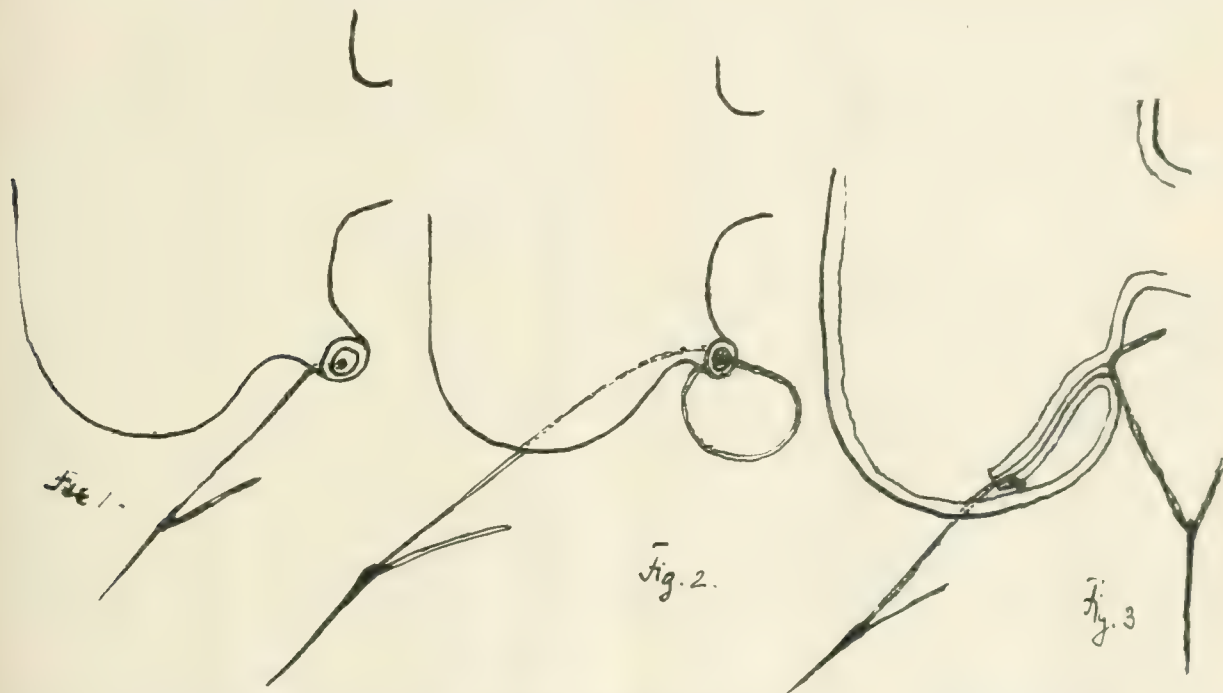
stump with a dangerous mucosa and practically no suture material in the peritoneal cavity to give rise to adhesions.

The only objection that I have to the method is the following: In dilating the stump and inverting it, an instrument is passed into the cæcum and withdrawn after the inversion along the serosa of the stump. There is a possibility of infection of the serosa at this step of the operation, which may endanger the desired union of the serous surfaces. I have, therefore, made a little modification which avoids this danger.

I proceed as follows: After the appendix has been lifted out of the abdomen a forceps is passed over its mesentery up to the cæcum, and the appendix up to its base is severed from the mesentery. A

ing on this thread inverts the appendix immediately in a most satisfactory way. The forceps at the base of the appendix is removed and the cæcum held only by the inverting thread (Fig. 3). The appendix now is inverted so completely that its serous surfaces are in perfect apposition and are held there by mere traction on the inverting thread (Fig. 3).

Now a second needle, with a catgut thread, sutures in three or four continuous stitches the serosa of the funnel of the inverted appendix (Fig. 3). Then the operator holds in one hand the suture of the funnel, and with the other cuts the inverting suture close to the bowel-wall, then rolls the wall of the bowel between his fingers. Thereby that portion of the inverting thread, which was in the wall of the cæcum, is made to slip into



Needle passed from within outward through stump. The knot is inside stump.

Needle passed back through lumen of appendix and out through cæcum.

The inverted appendix is sutured at its base with a second needle.

small, blunt forceps takes hold of the cæcum at the base of the appendix and holds it up as high as possible. Sponges are placed under this forceps around the appendix. A forceps catches the appendix one third of an inch from its base, the appendix is cut away underneath this forceps and removed. The stump of the appendix is now simply held by the forceps at its base and escape of faecal matter is prevented merely by making traction on the cæcum. Now a fine, round straight needle with a thread, at the very end of which is a thick knot, is introduced into the stump one sixteenth of an inch from the cut surface from the inside outward. (Fig. 1), then the needle is passed back into the lumen of the appendix and on into the cæcum and passed out through the cæcum about one inch from the base of the appendix (Fig. 2). Pull-

ing on this thread inverts the appendix immediately in a most satisfactory way. The forceps at the base of the appendix is removed and the cæcum held only by the inverting thread. The appendix now is inverted so completely that its serous surfaces are in perfect apposition and are held there by mere traction on the inverting thread (Fig. 3).

Now a second needle, with a catgut thread, sutures in three or four continuous stitches the serosa of the funnel of the inverted appendix (Fig. 3). Then the operator holds in one hand the suture of the funnel, and with the other cuts the inverting suture close to the bowel-wall, then rolls the wall of the bowel between his fingers. Thereby that portion of the inverting thread, which was in the wall of the cæcum, is made to slip into

the lumen of the cæcum as the inverted stump of the appendix is moved away from the cæcal wall, to which it was drawn by the inverting suture.

Next the mesentery is sutured with the same thread which closed the base of the appendix. The mesentery is drawn into a small bunch, and by tying the end of the thread on the mesentery to the beginning of the thread the stump of the mesentery is made to cover the suture of the appendix, so that no raw surface and no foreign body remain in the peritoneal cavity except the last knot of catgut. I may add, that it takes less time to perform these simple manipulations than it takes to describe them.

The first objection which, I suppose, will be raised against this method, is the perforation of the bowel at a distance from the appendix by the

inverting thread. But this prick of the needle is perfectly harmless. The experience with the Connell suture also is proof positive of the harmlessness of this stitch-hole, which the operator closes immediately by rolling the bowel between his fingers. Another possible objection is that the inversion would be impossible where there is a stricture or obliteration of the appendix between the cut surface and the cæcum. The obstacle could, however, be overcome by simple perforation of the obliteration or stretching of the stricture, and still there would be no risk of infecting the serosa of the appendicular stump.

There has never been any trouble in consequence of the use of this method. I have employed it to date in twenty-one cases. The patients have all recovered without the slightest trouble, and I therefore feel justified in publishing the method as a very easy, simple, and safe one.

100 STATE STREET.

THE HOOK WORM DISEASE IN ALABAMA.*

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The form of anæmia due to the presence in the intestinal tract of the uncinaria, or hooked thread worm, has been variously named: uncinariasis; ankylostomiasis; mountain cachexia; miner's anæmia; brick makers' anæmia; St. Gothard tunnel disease; tunnel anæmia; Egyptian chlorosis; hook worm disease. Although known in Egypt more than three thousand years ago, and in our own time extensively distributed throughout northern Africa, southern Europe, and some tropical countries, its great prevalence in the southern United States has until recently been unrecognized. Prior to 1893, no authentic American case had been reported, and up to two years ago, less than forty cases had been placed on record.

The subject of uncinariasis in America has been most exhaustively studied by Dr. Charles Wardell Stiles, chief of the Division of Zoology, Hygienic Laboratory of the Marine Hospital Service, Washington, D. C., whose excellent monograph on the uncinaria and its influence in the causation of disease in man, is included in the report of the Bureau of Animal Industry for 1901. This paper is by far the most valuable contribution to our knowledge of this form of parasitic disease which has thus far been made; and to Dr.

Stiles, who, by the way, is not a physician, but a Doctor of Philosophy, belongs the credit of having first suggested the probable great prevalence of uncinariasis in the South. His allegations have been fully corroborated by every one who has taken up the study of the hook worm disease.

Some months ago, Dr. W. T. Henderson saw, in consultation with Dr. S. S. Pugh, some cases of extreme and peculiar anæmia in children living in the manufacturing suburb of Pritchard, near Mobile. Suspecting infection by the uncinaria, Dr. Henderson brought the bowel discharges from several of these cases to me for microscopical examination. In all of them I readily demonstrated the presence of ova of the hook worm. It was the discovery of these cases which first actively directed my attention to the disease.

A few days after this, a ten year old white boy was brought to me from the hill country west of Mobile. He was undersized, emaciated, ghastly pale, short of breath, and so feeble that he could scarcely walk. He was listless, dull, indifferent, suffered from headache, showed œdema of eyelids and ankles, had a ravenous appetite, no bowel disorder, a trace of albumin and a few hyaline casts in the urine. Examination of the blood showed only 25 per cent. of hæmoglobin, although the corpuscular count was near normal. The child had been ailing for four years, and since long continued treatment for supposed malaria, anæmia, heart disease, and several other maladies, had proved unavailing, his mother had concluded that he must have some nervous disorder, and brought him to me. A microscopical examination of the fæces was at once made, and the eggs of the hook worm were found in abundance. After administration of thymol, adult worms were expelled to the number of many hundreds, and the boy began a rapid improvement which terminated in entire recovery in a few weeks.

A day or two later a young man, twenty-five years old, came into my office, giving a history of physical feebleness and mental sluggishness, with incapacity for work during many years past. He was emaciated, weak, nervous, apathetic, and obviously anæmic. Blood examination gave him 40 per cent. of hæmoglobin, 4,000,000 red corpuscles. Microscopical search of the bowel discharges revealed the ova of uncinaria and thymol expelled the worms in large numbers. Improvement was rapid and recovery complete.

Since then I have succeeded in interesting a number of my professional friends in the study of the disease, and have had many specimens of bowel discharge in suspected cases submitted to me for microscopical examination. In all I have diagnosed about 50 cases from Mobile, Monroe, Es-

* Read at the meeting of the Medical Association of the State of Alabama, at Talladega, April 22, 23, 24, and 25, 1903.

cambria, Crenshaw, and Covington counties in Alabama, with one case from Mississippi, and one from West Florida.

The cases of Dr. Pugh and Dr. Henderson have already been referred to. They were reported by Dr. Henderson in the February number of the *Mobile Medical and Surgical Journal*.

Dr. L. D. Parker, of Searight, in Crenshaw County, writes me that he has some thirty cases in his practice. I have confirmed the diagnosis by microscopical examination in twelve of these, and have no doubt that the remaining cases are of similar nature.

Dr. Charles A. Mohr, of Mobile, has seen and treated a number of cases, from fifteen to twenty in all.

Dr. C. K. Roe, of Spring Hill, five miles west of Mobile, tells me that he has even a hundred or more cases among the poor whites of the sandy hill country thereabouts.

Dr. G. H. Searcy, physician in charge of the colored insane hospital at Mt. Vernon, Mobile county, has found one nineteen year old colored insane patient affected, and several cases in white children living in or near the village of Mt. Vernon. Two specimens of fæces sent me by Dr. Searcy contained hook worm ova.

Dr. S. B. McMillan, of Monroe county, writes me that he has found, and is now treating, quite a number of cases. He sent me several specimens of fæcal matter for diagnostic examination, all of which were proved to contain hook worm ova.

In view of the facts now at hand, there can no longer be any question of the exceeding frequency of this disease, not only in Alabama, but throughout the South. Stiles, during the autumn of 1902, made a tour of investigation through Virginia, the Carolinas, and Georgia, finding the hook worm anæmia widely prevalent. Harris, of Atlanta, who has diagnosticated numerous cases in Georgia, expresses the opinion that "by far the greater number of cases of anæmia in Georgia, Florida, and Alabama are due, not to malaria, but to ankylostomiasis." Allen J. Smith, of Galveston, has reported cases in Texas, some of these being discovered by Smith nearly ten years ago long before any general interest in the disease was shown.

I feel justified in saying that every physician present here to-day whose practice extends into the country and among the poorer class of whites has seen, not a few, but many cases of uncinariasis. There is good reason for the belief that the hook worm disease is one of the most widely prevalent and one of the most serious with which the poorer class of our white population have to contend.

The disease is easily recognized so soon as one's

attention is directed to it, and when discovered in time, easily and quickly cured; while, if its true nature is not recognized, it is practically incurable and often fatal. Furthermore, every person suffering from the hook worm disease is a source of serious and constant danger to other members of his family and to the community in which he lives, since the soil, water, and some kinds of vegetable food are sure to become infected by the many millions of hook worm embryos which the sufferer from uncinariasis casts abroad with his bowel movements. It therefore becomes the duty of us all to recognize quickly the existence of the disease in our midst, to the end that prompt relief may be given the individual patient, and further spread of the disease averted.

In reviewing the clinical symptoms of uncinariasis we find the one ever present feature to be anæmia. This may be very slight, but in all typical cases is well marked, and in severe cases, extreme. It has been noted that the diminution in hæmoglobin percentage is out of proportion to the reduction in number of red blood corpuscles. Both of the cases in which the opportunity of examining the blood was afforded me showed this peculiarity; an excess of eosinophile cells has also been found. The pallor of the skin and mucous surfaces is in many cases quite exceptional. Almost as characteristic as the anæmia are the associated mental and physical feebleness, apathy, indifference, and inability and disinclination to work. Normal development is markedly checked, and the subjects are usually undersized, and the growth of hair is scanty. Hæmic heart murmurs are frequent. Œdema of the feet and eye lids is often met with. The appetite is capricious, sometimes ravenous, and a liking for clay, chalk, dirt, and other indigestibles is shown. The bowel symptoms are not characteristic. There may be constipation or diarrhœa, or no abnormality. In many instances the fæcal matter is blood stained, or colored by altered and partly digested blood which has oozed from the wounds made in the intestinal mucosa by the parasites. The "dirt eaters" of our sand hills are excellent examples of this disease, and any one who can recall the appearance and mental characteristics of a little stupid, tallow faced dirt eating boy, has a typical picture of uncinariasis.

While the symptoms are often sufficient for diagnosis, the only absolute differentiation between this and other forms of anæmia is made by the finding of the ova of the parasites in the bowel discharges. The method of examination for these is the simplest possible; a small bit of fæcal matter is placed upon a slide, a cover glass applied and pressed

down, so as to spread the mass out into a thin translucent film, and the specimen is examined with a medium high power. The segmented ova are comparatively conspicuous objects, and possess features which readily distinguish them from the eggs of ascaris, tænia, or other intestinal worm. The number of eggs found will give some indication as to the number of adult worms in the intestine, and of the severity of the case. Remember that the eggs only are found by microscopical examination; the adult parasites are never present in the faecal discharge unless some antihelmintic has been previously given. If, for any reason, microscopical examination of the faeces is impossible, in suspected cases the patients may be given thymol, and the faecal matter subsequently passed examined for adult worms. The discovery of the parasites will confirm the diagnosis.

The treatment of uncinariasis consists in expelling the worms by the use of thymol or male fern, and building up the blood quality and physical strength by iron tonics and good food. Thymol is preferred to male fern by most writers, is practically a specific, and has been used in all the cases which I have treated or known of. The patient should be allowed only liquid food for one day, and be given a full dose of calomel. The following morning, before any food is taken, from forty to sixty grains of thymol are administered, in capsules preferably, either in two doses of twenty to thirty grains each, or ten grains every twenty minutes, which latter is the plan I have followed. Four hours after the last of the thymol is given, a dose of Epsom or Rochelle salts is used, to insure complete emptying of the intestinal tract. The result is usually very satisfactory, hundreds of worms being passed. Several microscopical examinations of the faeces should be made during the following week, and if ova are still present, the thymol should be repeated. About one month later it is considered advisable to give a full dose of thymol as a precautionary measure. It is best not to give thymol in alcoholic or other solution, on account of the danger of poisoning from the very large dose it is necessary to give; and, for the same reason, alcohol, oil, or other solvent should not be taken into the stomach for some hours after thymol is administered. Sixty grains is the dose for vigorous half grown children and adults. In younger children, and in those who are very weak, forty grains is safer. In one case reported to me by a friend, sixty grains of thymol given to an eight year old child came near proving fatal, the child becoming pulseless, comatose, and lying *in articulo mortis* for three hours.

The spread of uncinariasis can be guarded against

by disinfecting or destroying the stools, and to a great extent by simply preventing the faecal matter from being indiscriminately scattered about. Personal cleanliness and the avoidance of water or food which may possibly have become infected should always be insisted upon.

When discovered in time and properly treated the prognosis of the hook worm disease is uniformly good. There is a rapid improvement in appearance, muscular strength, and mental activity, keeping pace with the rapid increase in hæmoglobin percentage. When permitted to run its course, a considerable proportion of cases end in death. Four fatalities from uncinariasis have already come to my knowledge.

And now a few words regarding the parasite which causes this disease.

The uncinaria is a nematode worm about half an inch in length, the female somewhat larger than the male, thread like, white or pink in color, and curved at the anterior end. It gains entrance to the intestinal tract during one of its several phases of embryonic development, completes its growth in the intestine, and then attaches itself to the mucous surface of the gut by means of the several hook-like appendages of its oral orifice. It sucks blood directly from the capillaries, but at intervals lets go its hold and attaches itself in a new place. The number of parasites varies from a few in mild cases to many hundreds, or even thousands, in the severe ones. My friend, Dr. Parker, who took the trouble to count the worms expelled from two of his patients, found in one of them 953, and in the other more than 1,700.

Closely related species of uncinaria are found in dogs, sheep, and other animals, as well as in man. The human species has been variously named *Uncinaria duodenalis*; *Ankylostoma duodenale*; *Dochmius duodenalis*; *Strongylus duodenalis*, etc. Stiles has made the interesting and important discovery that the endemic uncinariasis of this country is caused, not by the *Uncinaria duodenalis* of the old world, but by a distinct species for which he proposes the names *Uncinaria americana*. Adult worms from several of my cases were submitted to Dr. Stiles and by him pronounced to be specimens of *Uncinaria americana*.

The ova of this worm, so important in diagnosis, are some twenty times the size of a red blood cell, oval in shape, have a transparent, colorless, but very distinct capsule, and a gray or brown granular segmented protoplasm. In faeces which have been kept for a day or two during warm weather, different stages of intracapsular embryonic development may be met with, as well as free, actively moving embryos, ready to carry infection. These

eggs are discharged with the fæces to the number of countless millions daily. They find in the fæcal mass and the surface of the ground upon which it is thrown, conditions favorable to their continued life and development, and persons living in an infected locality are in great danger of contracting the disease by swallowing food or water containing hook worm embryos. Persons who work in earth, such as farmers, brick makers, and miners, and children who play in the dirt, go barefooted, and eat with soiled hands, are particularly endangered. In the South, the disease is, according to Stiles, found chiefly *on sandy soil*. It is never met with in cities or towns having a clean water supply, and a system of sewage disposal. Not a single case originating in the city of Mobile has come to my knowledge.

It has not been my aim to review the subject of uncinariasis in its entirety, but simply to lay before you some evidence showing the prevalence of the disease among us, and to urge upon you the importance of a prompt recognition of the proved facts and the necessity for commencing an immediate crusade against the malady.

105 ST. JOSEPH STREET.

GONORRHŒA INSONTIUM ESPECIALLY IN RELATION TO MARRIAGE.*

By PRINCE A. MORROW, M. D.,
NEW YORK.

(Concluded from vol. lxxvii, p. 1155.)

OPHTHALMIA NEONATORUM.

The social dangers which follow the introduction of gonorrhœa into marriage are not limited to its effect upon the health or life of the mother, nor yet to its inhibitory influence upon her conceptional capacity, but are manifested still farther in the infective risks the mother herself conveys to her offspring.

In the vicious circle created by the process of parturition in the gonorrhœal woman, the being she brings into the world is not only the innocent occasion of her pelvic accidents, but in turn becomes the recipient of the germs of the maternal disease, which may cause irreparable injury to one of the most precious organs of special sense, the eye.

The child, in its passage through the maternal parts, is compelled to undergo a veritable baptism of virulence. In the course of its passage, the face of the child and especially the eyes, are liable to be soiled with the uterine, vaginal, and vulvar

liquids, containing gonococci. The opening of the eyes of the infant, occurring as a rule when the child comes into the world, permits the penetration of the secretions into the conjunctival sac. The gonococci find in the delicate mucosa of the eyes a favorable soil for inoculation. The prolonged sojourn of the infant in the lower strait also favors this inoculation. In primiparæ, in whom the process of parturition is prolonged, the infant is more apt to contract contagion. After birth, the infectious secretion may be carried into the eyes through the intermediary of sponges, wash-cloths, or by the fingers of the accoucheur or nurse. When one eye remains uninfected, it may be inoculated with the purulent secretion of the other.

Gravity.—It is estimated that from 10 to 20 per cent. of all blindness is caused by gonorrhœic infection. Of all causes of blindness, purulent conjunctivitis is the most powerful factor. According to Neisser, there are in Germany, at the present time, 30,000 blind, whose loss of sight is due to gonorrhœal ophthalmia. In many institutions for the blind, no fewer than 60 per cent. of the inmates have lost their sight from gonorrhœal infection. In the institutions of Paris, the percentage is estimated at 46; in Switzerland, 20; in Breslau, 13; in this country from 25 to 50.

Frequency.—In the report of the Committee of Seven, which records 1,941 cases of gonorrhœa in women occurring in private practice in this city in one year, there were found 265 children with purulent ophthalmia. In the same year there were found in one of the eye hospitals of this city 136 cases of purulent ophthalmia.

In maternity hospitals, the frequency of this accident has been reduced by the employment in women known to be suffering from gonorrhœa of strict antiseptic prophylactic measures, such as vaginal douches, etc., up to the moment of accouchement.

Although purulent ophthalmia of the new-born has been largely shorn of its horror by the introduction of the Credé method, yet even now many children suffer the lifelong misfortune of deprivation of sight from maternal infection during the process of parturition. Even at the present day in Germany the gonorrhœa of the new-born causes each year about 600 cases of blindness. It is said that in the blind population of Switzerland, one in every five is due to purulent conjunctivitis.

Unfortunately, when gonorrhœa is localized in the cervix uteri, clinical evidence and bacteriological proof of its existence may be exceedingly difficult or impossible. The occurrence of purulent ophthalmia in the new-born may be accepted as proof positive of the infection of the mother.

The symptomatology of purulent conjunctivitis

* Read before the American Academy of Medicine, at Washington, D. C., May 12, 1903.

is too familiar to require description. The chief danger so far as the effect upon the visual function is concerned, resides in the corneal complications and their consequences. If treatment is instituted before the cornea becomes seriously implicated, the results are always more favorable.

Horner found 161 cases of ophthalmia neonatorum, 53 of which were brought to him after the cessation of the active inflammatory process for corneal lesions more or less grave; of these 53, 14 were completely blind, 25 were partially blind, and in 15 there were corneal opacities which impaired vision. In the remaining 108 cases which were brought to him in active evolution, 40, or 37 per cent., presented corneal lesions before treatment, and three during treatment. He observed that the greater number of patients in whom the cornea was attacked suffered from a more or less complete diminution of visual capacity.

Hirschberg, in 200 cases of gonorrhœal ophthalmia, found that 53, or 27 per cent., suffered from initial corneal lesions; six of these terminated in complete blindness. In 378 cases of purulent conjunctivitis treated by Heim, 317 were cured completely, and 61 had permanent lesions with impaired vision. Eperon, in 161 cases occurring in private practice, had only 11 bad results. Of these 11, 7 presented, when first seen, grave and irreparable lesions of the cornea, most of which were produced by a too active treatment with caustic solutions.

The dangers of purulent conjunctivitis from maternal infection are not limited to the child. Nothing is more infectious than ophthalmia neonatorum. It often happens that the attendants, the nurse, or the members of the family are infected, and it is to be observed that, while the infection may be comparatively benign in the infant and yield readily to the Credé method, with complete conservation of the integrity of the sight, the infection transmitted to the attendants most often results in a virulent inflammation which may entirely destroy the eyes. It is probable that the infection of the eyes of the child during confinement is in many cases less active; the inoculated pus may be attenuated by the fluids with which it is mingled. Oftentimes it is the pus of a chronic metritis which possesses only a modified virulence. When transferred to the more favorable soil of the conjunctival membrane of the child, it acquires an exalted virulence and becomes capable, when again transferred to a new medium, of determining the highest grade of inflammation. Gonorrhœal conjunctivitis of the adult may terminate in perforation with destruction of vision or it may lapse into a chronic stage.

The Credé method of treating ophthalmia neo-

natorum must be regarded as one of the most valuable acquisitions to modern therapy, since, through the introduction of this prophylactic measure, the destructive effects of the gonococcus upon the eyes of the new-born have been materially reduced. On account of the pain and irritation caused by the 2 per cent. solution of silver nitrate and its caustic, penetrating action, there is a tendency on the part of ophthalmologists to substitute a milder solution of the silver nitrate or one of the silver salts, such as protargol, argyrol, or argamentine. The use of a few drops of a 10 per cent. solution of argyrol is asserted to be an infallible preventive, which is entirely free from the irritating effects caused by the silver nitrate.

DANGERS TO THE ENTOURAGE.

Vulvovaginitis of Young Girls.—Another danger introduced into family and social life by gonorrhœa is caused by a certain class of inoculations to which the term gonorrhœa insontium applies with special fitness.

One of the characteristics of gonorrhœa is its susceptibility of being communicated by mediate contagion. No fact is better established than that coitus is not essential to infection. The numerous facts of experimental inoculation show conclusively that the virus of gonorrhœa may be transferred by means of any indifferent object upon which it has been deposited and inoculated when brought into contact with a mucous surface susceptible to its action. Even before the discovery of the gonococcus, it was known that the pus of gonorrhœa might be isolated and collected, or, when accidentally adherent to any foreign body, might be unconsciously inoculated. Numerous well authenticated cases of water closet infection have been recorded. Rosso- limos cites cases in which it was derived from the night-vase, towels, etc. The common use of vaginal douche tubes may be the cause of gonorrhœal transmission; the fingers, thermometers, towels, sponges, etc., may be the medium of transference of the virus. The period during which the dried pus deposited on a foreign body conserves its virulence is not absolutely determined.

It is evident, therefore, that a case of gonorrhœa in a family may be the source of multiple contagions. Of most interest in this connection is the class of contagions which, through their habitual localization have received the name of vulvovaginitis. The innocent victims of this form of contagion are usually children from two to six years of age. It may be present in the new-born or at any age below puberty.

Frequency.—There are no statistics available from which we can estimate the frequency of this accident; undoubtedly it is much larger than is com-

monly supposed. In the report of the Committee of Seven, there were found 218 cases of vulvovaginitis in private practice in this city among 1,941 cases of gonorrhœa in women.

While it is admitted that not all the cases of purulent discharge from the genitals of young girls are of gonorrhœal origin, yet the other factors, the irritation of pin-worms, uncleanness, certain diathetic states, attempted violation, etc., play an ætiological rôle quite insignificant in comparison with the gonococcus.

In this connection it may be stated that the vulvovaginitis of young girls has most important medico-legal relations. Formerly these cases were almost universally attributed to violation. The assumption that any purulent discharge from the genital mucous membrane of a young girl is necessarily the result of criminal intercourse has often led to the unjust accusation and punishment of innocent persons for attempted violation. One knows the facility with which children are disposed to accuse and lie, especially if they have bad habits to conceal. The physician should always be exceedingly reserved in giving an opinion in such cases, as the suggestion that a purulent discharge in a young girl was caused by violation might lead to the gravest consequences. We now recognize that gonorrhœa in children is vastly more often due to accidental mediate transmission than to attempted intercourse.

Our knowledge of the gonorrhœic origin of vulvovaginitis is essentially a modern acquisition. It is only within the last ten or fifteen years, since the methods of distinguishing between simple and specific inflammation have been more generally understood and employed, that vulvovaginitis is recognized as a true gonorrhœal infection. One has only to examine our text-books on diseases of children, prior to 1890, in order to appreciate this fact. Koplik (1893) did much to disseminate in this country a knowledge of the specific origin of this disease and the comparative frequency of its occurrence.

Kalven Brach examined 21 children with vulvovaginitis; in 20 he found the gonococcus; 7 had been violated; 3 had contracted the disease at the hospital; 10 others had shared the bed of the mother suffering from gonorrhœa, or there lived in the same family some person affected with gonorrhœa. Calven, in the examination of 30 girls, aged from seven months to eleven years, found gonorrhœa in 24. In 6, the inflammation was of a simple character. Fischer found the gonococcus in 50 out of 59 cases. Vaillon and Halle found gonorrhœa in 25 cases out of 27.

Ætiology.—Infection of the child may occur (1) during the process of parturition; (2) from inocu-

lative contact of the genitals of the child with a person suffering from gonorrhœa; or (3) from mediate contagion by means of various articles upon which the virus may have been deposited.

Inoculation may take place from contact of the vulva of the child with uterine secretions mixed with pus containing gonococci. A breech presentation favors the ready penetration of the gonococci into the genital tract. This is more apt to be the case when the labor is prolonged.

In the large majority of cases the patient has had actual contact with persons suffering from gonorrhœa. It may be from sleeping in the same bed with the father or mother, in other cases with a brother, sister, or nurse who is suffering from the infection. Spaeth found that in 90 per cent. of all cases of specific vulvovaginitis in children coming under his notice, the mothers suffered from leucorrhœa or uterine discharge. These family epidemics are very frequent. The youngest child is not usually the one first contaminated. The comparative infrequency of this accident before the second year, as a rule, is explained by the fact that this period corresponds to the time during which the child occupies the cradle alone.

In other cases the contagion is conveyed mediately by the use of sponges, towels, or by the use of a common bath. There are numerous cases of mediate contagion recorded from vulvovaginitis from the use of pencils or other articles soiled with the discharge. In one case a little girl who had received in the eye, while playing, the finger of one of her playmates who was afflicted with vulvovaginitis, suffered from a characteristic purulent conjunctivitis in which gonococci were abundantly found.

Epidemics of specific vulvovaginitis have been recorded by numerous observers in children's hospitals. In almost all cases the origin of the epidemic could be traced to a child who had entered the hospital with a specific vulvovaginitis.

Epidemics of vulvovaginitis have been observed from the common use of public baths by children. Suchard reports a remarkable epidemic of vulvovaginitis in young girls at Lavey, which continued for twelve or fifteen days until the use of the public bath was forbidden. Another remarkable epidemic was reported by Skutch as occurring in the city of Posen, where 236 children, whose ages varied from six to fourteen years, developed in the course of a fortnight vulvovaginitis of gonorrhœal origin which was proved to be due to the use of the public bath.

Localization.—The term vulvovaginitis does not strictly indicate the exclusive localization of the infection. While the vulva is primarily affected, the infection may invade not only the vagina, but the

urethra and cervix. Contrary to what is observed in the adult, Bartholini's glands are rarely the seat of the infection. The vagina of the child, however, is quite susceptible to the action of the gonococcus, but the inflammation is as a rule of comparatively short duration. Just as in the adult, the gonorrhoeal process tends to localize itself in the urethra or in the cervical neck.

While the urethra is also frequently the seat of the process, it is, however, not so persistent and gives rise to no serious symptoms.

The cervical localization of the gonorrhoea of young girls is now recognized as much more common than was formerly supposed. In the majority of cases in which the duration of the inflammatory process has been prolonged, the mucosa of the cervix will be found congested and inflamed, and pus is seen to exude from the cervical opening. Koplik found that, in all the cases examined by himself with a small urethral speculum, pus escaped from the external os. The participation of the uterine mucosa in the inflammatory process may be considered quite habitual.

The extension of the infection to the body of the uterus and the consequent evolution of pelvi-peritonitis, though comparatively rare, is no less well authenticated. There are numerous cases in which the tubes, ovaries, and peritonæum were found to be involved in the pathological process. Currier suggests that many cases of undeveloped uteri resulting in dysmenorrhoea and sterility may be due to gonorrhoeal infection in infancy. It is also probable that many cases of metritis and salpingitis occurring in virgins and young women at the age of puberty or later, and the origin of which was indeterminate, may be ascribed to an antecedent vulvovaginitis which may have been overlooked or forgotten.

Specific infectious vulvovaginitis and that due to simple causes have certain clinical characteristics in common—redness, swelling, and purulent discharge. They can, as a rule, be distinguished by clinical evidence; the results of treatment also serve to differentiate them. In gonorrhoeal vulvovaginitis the discharge is thick, greenish-yellow, and abundant. In simple vulvovaginitis the discharge is thin, serous, viscous, or yellowish-gray. The latter has a tendency to clear up promptly under the influence of cleanliness and simple aseptic washes. If these simple means do not promptly succeed in curing the trouble, further attempts should be made to ascertain its possible specific nature. The gonococcus may be found in almost all cases if examination is made at a favorable moment.

It is worthy of note that gonorrhoeal vulvovaginitis may be the source of serious autoinfection

—the patient transferring the gonorrhoeal virus from the vulva to the eyes.

The tendency of the child to carry the hand to the genital parts explains the frequent transference of the infection. Gonorrhoeal ophthalmia is recognized as a most frequent complication of vulvovaginitis. Ceseri reports certain cases of this kind out of 26 cases of vulvovaginitis. Weidmark has observed 19 cases of this complication. Gonorrhoeal rheumatism is also a frequent complication of vulvovaginitis. Beclerc has reported several cases which demonstrate the coincident occurrence of gonorrhoeal rheumatism and vulvovaginitis in infants. The comparative frequency of this complication is not, however, possible to determine.

It is no exaggeration to state that every year in this country thousands of young, innocent women are infected by their husbands who, in many cases, do not dream that they carry to the marriage bed the germs of a disease destined to wreck the health or lives of their partners. These women are condemned to invalidism, to various inflammatory disorders of the pelvic organs, to sterility, to castration, by the act of men who have vowed to love, cherish and protect them. It is not because men are so lacking in conscience and sensibility that they perpetrate these crimes; it is largely from ignorance and lack of knowledge as to the nature and danger of gonorrhoeal infection, for which the medical profession is largely responsible. After all, the views of the laity upon many medical subjects are but the reflected opinions of the medical profession. The time is not long past when the existence of an intermittent gleet was not thought to be an obstacle to marriage. Many physicians were accustomed to recommend what was called "the sexual hygiene of married life" as the best cure for these intermittent discharges. It is not surprising that the laity are unsuspicious of the pathogenic significance or the potentiality for mischief of a disease which the physician regarded as practically cured.

WHAT ARE THE REMEDIES?

Since prostitution is the fountain-head of this disease, it might seem that the only effective remedy would be to attack the evil at its source. All experience proves, however, that prostitution must be looked upon as a necessary evil in our social system, which cannot be uprooted or destroyed, and it must be remembered that it is not the prostitute, but the husband and father, who carries the poison home and distributes it to his family.

Many sociologists, with a fatuous belief in the efficacy of legislation to suppress and control prostitution, look upon legal enactments as our only so-

cial defence against the venereal plague. Much has been written and much has been said about the efficacy of moral and religious influence in the uprooting of vice, upon the beneficial effects of the regulation of prostitution or its suppression by State and municipal legislation; but the fact is irrefutable that no legislative force, whether practicable or not, no police intervention, whether justifiable or the reverse, promises to be immediately available. In this country at least, recognition of the evil to the extent of license and control is barred by public sentiment. The policy of the movement encounters a strong hostility from the public. We have to fall back upon methods which are practicable and available. The true remedy, the only remedy at present available to modify or minimize the appalling evils, moral and physical, which flow from venereal diseases, is the education of the public, the general dissemination of knowledge respecting the dangers and modes of contagion of venereal diseases. It is not by legislative enactments, but by the persuasive force of enlightenment, by combating the dense ignorance which prevails among the laity, and especially among the young upon whom the incidence of these diseases most heavily falls that these evils can be corrected. If a young man is instructed into a knowledge of the fact that venereal disease is the almost invariable concomitant of licentious living, that such indulgence is not wholesome for him, that it carries with it consequences to himself and to others, consequences which may impair his health, vitiate his manhood and lead to a forfeiture of all those hopes and aspirations which are to be fulfilled in a safe, fruitful, and happy marriage—he will pause and consider, etc. Human nature is so constituted that from the days of Adam until now the mandate "Thou shalt not," etc., has ever proved the strongest incentive to disobedience.

What the laity needs, then, is such enlightenment. (1) An entire reconstruction of the traditional view that gonorrhœa is a trivial disease, easily cured and entailing no serious after consequences. (2) A knowledge of the fact that apparent cures are most often deceptive, that the chief danger of the disease is its potentiality for mischief after apparent cure. (3) That the gonococci are endowed with remarkable longevity; that they may persist in a latent state, susceptible of being awakened into activity and virulence, months or years after active symptoms have ceased. That the necessary and indispensable condition of the admissibility to marriage of the gonorrhœic is a clean bill of health, the absence of gonococci from the urethral secretions, demonstrated by the most exacting bacteriological tests.

The result of the false impression instilled into the minds of young men, that sexual indulgence is essential to health should be corrected. It is through the medical profession that this saving and salutary influence of enlightenment must come. The family physician is peculiarly adapted, by his intimate relation with his patients, the freedom which his vocation allows him to talk on topics ordinarily forbidden, and his relation as friend as well as professional adviser, to impart this information and explain matters relating to sexual hygiene in a manner always decent, but sufficiently plain.

66 WEST FORTIETH STREET.

PERINEAL PARTIAL PROSTATECTOMY.

By WELLER VAN HOOK, M. D.,
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The energetic and largely successful efforts of those who, for the last fifteen years, have been engaged in perfecting the treatment of prostatic hypertrophy, have filled with the greatest enthusiasm all who have commiserated the sufferings of men that outlive a half century. It seems almost incredible that a group of morbid changes resting almost entirely upon a mechanical cause, though known symptomatically with more or less accuracy since Hippocratic times, should have escaped the restless energy of surgery. The exact cause of the retention of urine and of the series of ill effects which follow upon this retention has scarcely been made clear until quite recent times. Indeed, even to-day, new and bizarre opinions are set forth with alarming frequency.

To review briefly the methods by which the consequences of prostatic enlargement are at present met, we may begin by speaking of the catheter, which is still far more frequently used than we think it is justified. The dangers of catheterism are well understood; it is well known that in almost all instances where the instrument is used for any length of time, infection of the bladder occurs, with a subsequent ascending pyelonephritis. It must, nevertheless, be admitted that some patients live under catheterization for many years, usually in spite of nephritis; but burdensome discomfort attends the use of the catheter, and hope of emancipation from the encumbrance cannot be extended without surgical intervention. The day of the catheter has passed, and we must find some means to obviate the need of reverting to its use by inventing new and improved methods of permanently overcoming the obstruction. The catheter must be reserved in future for the rapidly diminishing class of cases not suited to operative management.

The ingenious improvements made in internal

prostatotomy by Bottini have found extensive, though not universal, adoption. It is certainly to the advantage of the operation that the good effects are often obtained very promptly. The patient frequently begins to urinate shortly after the operation, and a long period of convalescence is not common. Another advantage of no mean import to the patient is that no external incision has to be made, and the after effects of an ordinary bloody operation are to a considerable extent avoided. Moreover, the danger under favorable conditions is comparatively slight. The operation seems to be indicated in some of the so called mechanical cases, where no complications exist. The disadvantages attending the operation are, however, considerable. In the first place, the uncertainty of the operation is far too great. Moreover, the improvement, even in successful cases, is usually only partial; almost always a considerable amount of residual urine remains in the bladder. These cases are referred to by operators all too frequently as perfect successes. Those of us who desire a radical cure do not feel content with residual urine amounting to from two to twenty drachms. The writer has practised the Bottini with fair success, and considers that it has an important place in the therapy of prostatomegaly. Young's instrument is especially to be recommended.

It certainly seems to the writer, also, that drainage is a useful termination of the operation in those cases in which infection exists.

The uncertainty of the so called sexual operations has very properly put them out of consideration. Despite the fact that many favorable results have been reported, we cannot help feeling that these operations should no longer receive very much consideration.

Suprapubic prostatectomy is the oldest of the well systematized operations, and has been a useful procedure in its day. But the mortality of the operation is not small—it is said to be 60 per cent., though the writer thinks this percentage far too high. Its performance requires considerable time, fifteen to thirty-five minutes in the average case. The most serious objection to it, perhaps, is that an extensive incision must be made into the anterior bladder wall, while a second incision must be made in the posterior wall. The results in surviving cases have been, on the whole, satisfactory. The patient, as a rule, succeeds in emptying the bladder quite comfortably, and is well satisfied with the general result. The writer published his first reports (*Medical News*, 1903, p. 598) of cases in 1893.

The so called subpubic operation is not regarded with very much favor, as it is altogether too complicated to compete with simpler methods.

The operation of Dittel has not found very many advocates. It is that in which the two lateral lobes of the gland are shaved away through a long lateral incision. This incision unnecessarily mutilates the perineal structures.

The writer firmly advocates the remaining route, by perineal incision, and follows the subjoined technique.

Examinations preliminary to operation by catheter, sound, and cystoscope are not well tolerated by prostatics. Even the use of local anæsthetics does not free such manipulations of their terrors. Moreover, instrumentation is well known to be attended by not a few dangers, not the least of which is infection. For these reasons the writer does not in all cases insist that every diagnostic resource shall be brought into requisition, but rests content with a knowledge of the facts essential to rational therapy.

It is of great importance that the proper preparation of the patient be made. Attention to the diet, to the bowels, to the urine as to quantity and quality, and to the patient's rest, is to be insisted upon. Urotropin is usually prescribed by the writer for a few days before the operation. Strong nerve stimulants like strychnine are usually to be avoided. Digitalis is not lightly to be recommended.

Zuckerkandl, of Vienna, seems to have been the first to whom occurred the feasibility of a transverse incision, to open the way to the prostate. The special merit of his operation must be recognized in the principle of opening the perinæum at a point where the least damage is to be done to important structures, and in the principle of reflecting anteriorly the bulbocavernosus muscle and the bulb of the urethra, while the rectum and its sphincters are pushed backward. This is accomplished by transversely dividing the musculotendinous structures that unite the bulbocavernosus and the sphincter ani. Zuckerkandl clearly recognized the importance of this tendinous mass, which Holl (Bardleben, *Anatomie, Lieferung*, 4) has so aptly designated as the centrum tendineum of the perinæum.

The writer's technique, while utilizing Zuckerkandl's external incision, is radically different in its sequel. He considers promptitude in operating one of the most important features of prostatectomy in old men, for several reasons. The most important is that the various ill effects of anæsthesia are thereby diminished. Shock is to be dreaded in all operations upon the aged. Apoplexy is less likely to occur under brief anæsthesia. Nephritis, often present in chronic form, is less likely to be lighted up into acute activity. Active arterial and venous hæmorrhage and oozing must be expected during and after such operations, and is reduced to a minimum by quick operating and prompt packing.

For these reasons, before the anæsthetic is begun, the writer has every preparation made for the incision. The parts properly shaved and disinfected are exposed by placing the patient in the exaggerated lithotomy position with a small sand bag under the pelvis. Each limb is supported by an assistant; the stirrups or leg holders are not used, because during the operation it may be desirable to change the patient's position. The scrotum is held out of the way by an assistant and the grooved staff is introduced into the urethra, as for perineal urethrotomy. The instruments carefully selected, are placed dry on sterile towels upon a table at the operator's right hand. They are a small scalpel, a grooved director, scissors, dissecting forceps, a very few artery forceps almost never used, a stone forceps, the prostatome, two volsella forceps, a uterine dressing forceps, two strips of gauze packing, a drainage tube half an inch in diameter, and a needle armed with silkworm gut.

It is only when these preparations are complete that the operation is begun. The writer prefers, as a rule, nitrous oxide followed by ether as the anæsthetic. The patient goes to sleep in from one to three minutes. The anæsthesia is satisfactory to both patient and operator, and the amount of the anæsthetic to be eliminated is minimal. Should this method not be available, chloroform is to be preferred; or if ether is dreaded, chloroform may be substituted after the patient is asleep.

By adopting this method the writer has succeeded in operating in the majority of his cases in less than ten minutes. The total duration of administration of the anæsthetic has been thirteen to fifteen minutes.

The extremely short duration of anæsthesia the writer considers one of the great advantages of this technique.

When the anæsthetist announces that the patient is ready, absolutely no time is lost before beginning. The external incision is made transversely with a single cut of the knife through the skin and the centrum tendineum, about one inch in front of the anus. It need not be longer than one inch, or at the utmost an inch and a quarter. The writer has frequently removed a very large prostate through an incision less than one inch long. A few small arteries are likely to bleed, but it is usually unnecessary to ligate them. On the contrary, it is better to disregard them, knowing that the brevity of the operation and gauze packing are the best safeguards against excessive loss of blood.

The next step in the operation is that which characterizes the operation of the writer most distinctively. While Zuckerkandl continues to make transverse incisions through the connective tissue,

the levator ani, and the capsule of the prostate, the writer, in operating for prostatomegaly, makes a median incision into the membranous portion of the urethra. Of course the writer continues to follow out the details of Zuckerkandl's operation in cases requiring extensive extracapsular dissection, as in tuberculosis and carcinoma.

A grooved staff having been passed at the beginning of the operation, the point of the knife under the guidance of the finger is introduced into the urethra and into the groove of the staff, in the usual manner employed in making an ordinary perineal urethrotomy. The knife having come down upon the sound, it is pushed forward until an opening in the urethra of the desired size is made, but the prostate and the vesical neck are not cut. The urethral incision is usually about three fourths of an inch in length. The sound is now removed and the finger passed down the urethra into the bladder. One may pass a grooved director into the bladder along the sound to facilitate manipulation, the sound, of course, being removed before the finger is introduced.

The next step consists in the orientation of the interior of the bladder. The finger having been well introduced into the bladder, one can learn whether a stone is present or not. But it is not possible to be sure of the matter without introducing the finger to the uppermost portion of the bladder. It is always necessary to empty the bladder, and it may be necessary for an assistant to push the organ down from above. It is next in importance to examine into the condition of the so called median lobe, the size and situation of which are noted. Next, one examines the lateral lobes with care. As a rule, the finger will be firmly wedged between two hard lateral masses. Examination of these lobes can be better done by the finger within the bladder than by any other means.

The next step consists in the removal of the finger from the urethral wound and the palpation of the lateral lobes through the capsule. The finger is passed along the outside of the urethra between the lateral halves of the levator ani until the commissure of the prostate is reached, when the finger is passed over each lateral lobe in succession.

It is to be noted that access to the prostate at this stage is in the anteroposterior, or median, plane and the lateral halves of the levator ani muscle are left intact. The work of removing the prostate is effected between these muscles, which are not greatly disturbed, and are practically uninjured.

As a rule, it will be most convenient to attack first the right half of the prostate. It not infrequently happens that the capsule of the prostate is so dense that the finger cannot be pushed through it. In

this case it may be necessary to pass a knife along the finger until the point of the knife is in contact with the capsule, when an incision can easily be made sufficiently long to enable the operator to penetrate the prostate with the finger. The finger is then swept around the main mass of prostatic tissue, the operator's thought being concentrated chiefly upon the capsule, which is pushed away from the contents of the prostate with great care. The masses which have been loosened are removed with a stone forceps or the hysterectomy volsella forceps of Richelot. Should the uppermost part of the mass not readily be removed, it may be drawn down a short distance by the tenaculum forceps so that the finger can separate it from its attachment. The left half of the prostate can usually be removed through the same incision, which is extended and dilated by the finger.

The easiest prostates to remove are those in which the hypertrophy is of the "adenoma type." The masses are of a somewhat globular form, and are, as a rule, not closely adherent to one another.

In some instances, however, the mass is of a firmer consistency, the tissue having a fibrous character. Even this fibrous mass may usually be dealt with by the enucleation process with the finger. The finger in this case, however, is put to much more strain. But, in occasional instances, it may be necessary to excise a portion of the mass with a cutting instrument. For this purpose the writer uses an instrument of his own design, after the plan of the instrument of Guyon. This is a scissors-like instrument with blades which meet like the jaws of a Rongeur forceps. With this instrument it is possible to bite away large masses of the prostate in a very short time. It is only a matter of convenience to use this instrument, as the curved scissors can be used with equal effect. In those cases in which the prostate is of difficult access, two fingers may be introduced into the perineal wound, and an assistant may press down upon the bladder from above. The assistant doubles up the fist and presses firmly into the upper entrance of the pelvis. It is in these cases, too, that the extreme lithotomy position shows the greatest advantages. The rectum being pushed backward, the fingers have the shortest route to the prostate, hence it is not at all necessary to use the additional suprapubic incision, which has been recommended by so many.

A median lobe can almost invariably be removed without opening into the bladder. The bladder should be pushed away with the finger from the lobe to be removed. It will, of course, do far less harm to leave a portion of the prostatic mass than to lacerate the bladder.

As much of the prostate having been removed as

in the judgment of the operator is necessary, the work is completed by the introduction into the bladder of a drainage tube about the size of the finger. The tube is sutured to the skin of the perineal wound. Two strips of gauze are also to be introduced, one at each side of the tube, into the space previously occupied by the lateral lobes.

In these operations it must be borne in mind that the tissues of old men are often atrophied and thin. They are extremely weak and offer but little resistance to pressure, so that one must be careful not to tear into the bladder or rectum with the finger.

If one works well within the capsule of the prostate, he gains one of the chief advantages of the method of partial incision. The disadvantage attending the complete removal of the prostate, in that the bladder can easily be wounded, is avoided. Moreover, the seminal vesicles are less likely to be wounded.

It is of great importance that the after treatment of these cases be properly conducted. The writer is in the habit of leaving the strips of gauze in the lateral wounds for from twenty-four to thirty-six hours. In removing them, care should be taken not to displace the drainage tube. No other gauze is put in place of that removed. The drainage tube is left for a much longer period, depending upon the amount of inflammation in the bladder, this period being as a rule from three or four days to two weeks. The tube may be entirely removed or a smaller tube may be left for a time. The fistula is usually somewhat slow to heal, but if sounds are used twice a week, and if exuberant granulations are kept down by passing a probe armed with silver nitrate along the fistula, there will be no difficulty about eventually closing it. It is also important that the patient should not be required to lie continuously upon the back. The first twenty-four hours he should be frequently turned from side to side, but after this time he should be allowed to sit up, thus facilitating the closure of the wound, the pressure of the viscera bringing together the opposing walls of tissue.

A comparison of partial perineal prostatectomy by this technique with so called complete prostatectomy suggests the following considerations:

The term "complete prostatectomy" is a misnomer, since, obviously, only the posterior portion of the gland is removed.

The extracapsular operation upon the prostate is unnecessary, since we wish primarily and chiefly to relieve a physiological, not an anatomical, aberration (Socin). A portion of the gland may be left so long as the desired mechanical change is produced. From our present experience we may say that the upper and anterior parts of the gland may be left.

But future experience must decide how much may be allowed to remain.

Again, we are far less likely to injure the base of the bladder, the seminal vesicles, and the rectum if our destructive work is confined to the limits of the capsule. It must be remembered that the vesical and the sphincteric musculature and the prostate lie close together, and the capsule is none too strong a barrier to protect the former from injury during the operations upon the prostate.

Probably, too, a diminution in size of the remainder of the prostate may be anticipated when partial intracapsular prostatectomy is practised.

And, since it is the posterior and lateral parts of the gland that are, apparently, the cause of most, if not all, of the functional disturbance, the operation may, with reason, be confined to them.

Moreover, a very much smaller wound with less general traumatism, briefer duration of anæsthesia, and less shock, are characteristic of the intracapsular operation.

Among the remoter consequences of partial prostatectomy, the effect upon the sexual function must be considered. In the absence of accurate data, which it is at present impossible to obtain since the operation is of too recent application, the researches of Dr. George Walker (*Johns Hopkins Hospital Bulletin*, March, 1901) are of great interest. It would seem probable that sexual vigor will not be lessened, but it may be that fecundation will not take place.

CASE I.—Michael F., aged fifty-one years. Gonorrhœa while in the civil war. No pus in urine. Operation required twenty minutes on account of the density of the prostate, which made it necessary to use Guyon's instrument for excising prostatic tissue. Drainage with tube and gauze packing. Wound healed rapidly. Stricture formed, owing to neglect to pass sounds. About two months after operation, patient returned and, under nitrous oxide anæsthesia, sounds were passed, entirely relieving all difficulty of urination. Present condition satisfactory. Patient urinates normally.

CASE II.—Alexander O. Swedish. Aged seventy-three years. Laborer. Patient appeared markedly senile. Arteries were rather hard. The urine contained albumin, epithelial cells, red blood corpuscles, a small amount of pus, and many bacteria. The prostate was removed in the usual way, about eight minutes being required. The patient bore the operation well, and reacted satisfactorily. There were no complications, and patient left the hospital in about one month in satisfactory condition. About six weeks after leaving the hospital, he returned complaining that he could not satisfactorily retain the water. After passing the faradaic current for a few days, one pole being placed on the perinæum, the other above the pubes, control was reestablished. Patient is now in satisfactory condition.

CASE III.—Dr. X. June 21, 1901. Aged sixty-five years. Came under my care for hypertrophy of the prostate. Patient was extremely thin and showed well marked signs of senility. He had long used a catheter, and there were chronic cystitis and pyelonephritis. Bottini's operation was performed. Improvement followed, but the improvement not being permanent, prostatectomy was performed, March 7, 1902. Operation lasted about eight minutes. The condition after the operation was satisfactory. Pyelonephritis of an acute form occurred, complicating the recovery. Patient was in the hospital about six weeks. The fistula closed promptly. Final functional result good.

CASE IV.—C. D. B. Aged sixty-five years. General condition very good. Urine clear; shows no albumin. Operation required about ten minutes. Condition after the operation excellent. Fistula closed promptly. Final functional result good.

CASE V.—George W. Aged sixty-seven years. Farmer. Had had trouble for two years. Bottini operation performed by the writer, November 3, 1901. The result was not satisfactory. While some improvement occurred, the cystitis remained almost as serious as before. On June 23, 1902, prostatectomy was performed. Prostate weighed nearly four ounces. Operation required nine minutes. Reaction satisfactory. Wound healing was complicated by transitory epididymitis. Final functional result excellent. Pus has practically ceased appearing in the urine.

CASE VI.—John D. Aged fifty-six years. Patient appeared much older. A large amount of pus in the urine. The catheter had been repeatedly passed. Operation, October 25, 1902, required about seven minutes. The convalescence was complicated by attacks of epididymitis, and also by rheumatism. The pyelonephritis, which existed before the operation, underwent frequent exacerbations. Patient, however, finally left the hospital before the fistula was closed. Patient is now suffering from chronic nephritis and rheumatism. Urinary function fairly satisfactory. The outcome of the case so far as nephritis is concerned is still in doubt.

CASE VII.—S. Aged sixty-six years. Trouble with urination for seven years. Cystitis well marked. Patient extremely weak and thin. Urine showed albumin, pus, and much blood. Operation, December 8, 1902. Six minutes. Recovery uneventful; function is all that could be desired.

CASE VIII.—Mr. J., of Dowagiac, Mich. Aged seventy-two years. Well-marked signs of senility, but patient is active. Urine contained pus in abundance, as the patient had regularly used the catheter for eleven years. For several years no urine had been passed without the aid of a catheter. Operation required nine minutes, prostate weighed almost four ounces. The reaction after operation was all that could be desired. Patient made a rapid recovery, and the result was extremely satisfactory.

CASE IX.—J. C. B. Aged sixty-two years. Presented an appearance of well marked senility. Botini's operation was performed, but, the result not proving satisfactory, the gland was removed by the perineal route. The progress of the case was rendered slow by pyelonephritis and epididymitis. Eventually, however, the patient gained excellent control of the urine. When last seen, about two months ago, the patient complained of slight dribbling of the urine. His condition is otherwise satisfactory. March, 1903, patient complains very much of dribbling.

CASE X.—Mr. V. Aged fifty-five years. Patient had been obliged to get up at night repeatedly to pass urine. Residual urine, about two ounces. Operation required about six minutes. Wound healed rapidly without complication. Urinary function entirely satisfactory. Patient afterward underwent nephrectomy for a condition not at all connected with the former difficulty.

CASE XI.—Mr. N. Aged sixty-five years. Had been bedridden for some weeks, and was suffering from extremely severe inflammation of the bladder, membranous patches of epithelium and fibrin being cast off with the urine. As a last resort prostatectomy was performed and the bladder drained. Operation required about six minutes. Patient got along very well for some days, but finally, about three weeks after the operation, succumbed to pyelonephritis and exhaustion.

CASE XII.—D. E. Aged seventy-eight years. Married. Grocer. Previous health good. For one year previous to operation slightly increased frequency of urination. For a number of weeks before operation, distention of the bladder, with overflowing. Bladder extended half way to the umbilicus. Catheterized by his physician. Patient at time of operation very much emaciated, with some fever. Operation required eight minutes. Tissues extremely lax and soft. Urine was infected. Recovery rapid, but urine was discharged by the rectum about three days after the operation. A report, March 11th, by Dr. S. R. Catlin, is as follows: "Mr. E. is in very fair general health, eats and sleeps well, and has gained considerable in weight. There is still an opening from the posterior urethra into the rectum about two and a half inches from the anus. It is now about the size of a lead pencil. The bladder retains four or five ounces of urine, and when this amount has accumulated, a desire to urinate is felt. The urine passes into the rectum, when the patient feels the need of moving the bowels. At times a few drops of urine pass by the urethra. Patient has never allowed any instrument to be passed since the operation. He feels that his condition is so much better than it was before the operation that possible further improvement to be obtained by the passing of sounds would not justify the discomfort."

CASE XIII.—Mr. J., Rockford, Ill. Aged seventy years. Operated upon January 19, 1903. Patient was extremely emaciated and showed all the usual signs of advanced senility. The region of

the base of the bladder was very œdematous. Operation required seven minutes. The urine had a well marked faecal odor and contained a large quantity of pus. Partial control of the bladder within a week. Considerable pain from tenesmus. Perineal wound closed completely in four weeks. The urine is not yet clear.

103 STATE STREET.

THE TREATMENT OF SO-CALLED DIABETIC GANGRENE OF THE EXTREMITIES.

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The form of tissue necrosis indicated in the title is not, strictly speaking, caused by the presence of diabetes mellitus, although its association with this form of glycosuria is frequent enough to have apparently justified its name. Also, the peculiar course of the disease, together with the appearance of the affected structures, is so characteristic as to render the diagnosis tolerably certain, even before its confirmation by the discovery of sugar in the urine.

It is well known that any wound infection in a diabetic subject will probably run an evil course, and often, in addition, will aggravate the diabetes, sometimes apparently causing the onset of acid intoxication with coma and death. For this reason antiseptic precautions are redoubled whenever it becomes necessary to operate in the presence of this constitutional disorder. However, in the absence of infection, wounds in these patients heal as well as they do in normal individuals. Indeed, non-malignant glycosuria, though permanent in character, is sometimes met with in young adults, its presence being discovered accidentally, no symptoms having led to a suspicion of the disease.

CASE I.—X., a practitioner of medicine, twenty-six years old, came to me about twelve years ago for the treatment of an acute infectious urethritis. His family and personal history gave no hint of glycosuria. In fact, he considered himself a normal healthy individual. His complexion was clear and ruddy, his general appearance robust and athletic. Yet, on examining his urine sugar was found by Fehling's test, and in considerable quantity. Not satisfied with this observation, the fermentation test was applied, and more than 1 per cent. of glucose was demonstrated. Dr. X. was considerably disquieted by the discovery and began treatment at once by codeine and antidiabetic diet. The gonorrhœa ran the usual course of a subacute attack and recovery was complete. The antidiabetic treatment, however, caused rapid emaciation and loss of strength, although the sugar soon disappeared. The patient, alarmed, and with reason, at the result of the treat-

ment, abandoned it altogether, resuming his usual mixed and generous diet. The sugar at once reappeared in varying quantity, often as high as 2 per cent., but the patient's good health returned with it, and he has remained perfectly well, with the exception of the sugar, up to the present time. Accidental wounds have always healed, and a rather extensive infected laceration over the crest of the tibia closed quickly and soundly.

In the aged or feeble, and in persons afflicted with obliterating disease of the arteries, necrosis of the soft parts is very apt to follow even slight traumatism, and when sugar in abnormal quantities is present it becomes a practical impossibility to avert putrefactive changes in the dead parts. This necrosis due to arterial obliteration is naturally commonest in structures of little vascularity, such as tendon and fascia, while it is uncommon in very vascular tissues, such as mucous membrane.

Spontaneous gangrene due to arteriosclerotic changes tends to form a clear line of demarkation, and if the site of the trouble is kept reasonably clean the process will go on to complete, almost aseptic, mummification. Fingers and toes, being supplied by a terminal circulation, and being composed almost entirely of skin, bone, and tendinous structures, are especially liable to the disorder. The tension in the tissues, which is caused by even a slight degree of infection will not infrequently so impair the circulation in these subjects that necrosis occurs, and, in the presence of sugar, phlegmonous processes with moist septic gangrene are the rule, with or without foci of mummification. This is the usual form of diabetic gangrene, which often appears after a trivial hurt such as the accidental infection incurred in paring a corn. A simple mummification due to arterial changes and occurring in a diabetic would be described as a gangrene in a diabetic individual, not as "diabetic gangrene." It is infrequent but may occur.

As in many other surgical diseases the treatment of diabetic gangrene of the extremities depends upon two factors and their relation to each other: First, the patient's general condition; and second, the character of the local process. I have been able to divide the cases rather roughly into three groups, although I well know that it is impossible to make a classification which will accurately fit each and every case.

Group I.—General condition good. No acid intoxication. Sugar much or little. One or more toes or fingers affected with or without phlegmon, but not threatening the usefulness of the member.

Here the treatment should be conservative. The affected fingers or toes should be removed and the phlegmon drained by the freest incisions. The

wounds should be packed and wet dressings applied, tendon and fascia being allowed to slough away.

CASE II.—A case illustrating this class is that of Mr. I. S. E., sixty-five years old, a patient of Dr. Alfred Meyer. He was for many years a diabetic. An infected clonus of the fourth toe was the occasion of my first seeing the patient. When it had become evident that, in spite of incision and drainage, healing would not take place, and when a bluish discoloration indicated the onset of grave circulatory changes, a metatarsophalangeal amputation was performed under anæsthesia by nitrous oxide gas, and the patient recovered with a foot almost as useful as ever; this, too, in the presence of over 2 per cent. of sugar and with marked renal and cardiac disorder. Local anæsthesia must, of course, be avoided in these cases, since the frozen or injured tissues are almost certain to necrose.

CASE III.—Another case may here be recorded in which diabetic panaritium with infection of the tendon sheaths had almost threatened the hand. The patient was from the practice of Dr. M. Schiller. He was a man seventy years old, who had suffered from carbuncle and had had the terminal phalanx of his thumb amputated by Dr. Schiller, on account of diabetic phlegmon. A number of weeks after the amputation Dr. Schiller asked me to see the man. I found the wound unhealed with retention in the sheaths of the flexor tendons, with some reddening of the skin, and with decided swelling in the thenar eminence running well up into the wrist. The case looked as if only the most radical drainage by incision would prevent a general infection of the lymph spaces of the entire hand. Nevertheless, well applied glycerin dressings with an emptying of the sinus by massage twice a day brought about complete healing without even a counter opening.

Group II.—General condition good. No acetone or diacetic acid in the urine. Local condition such as to threaten the usefulness of the affected member.

Here the ablation of the limb high above the upper level of the disease is the proper course. When the disease is in the foot it is best to make the amputation well above the knee, because at the knee joint there is so much tendinous tissue that necrosis is extremely apt to appear in the stump and defeat the aim of the operation. In the upper extremity the amputation need not, however, be above the elbow for a mere gangrene of the hand. All flaps should be made of skin and muscle instead of being composed of skin alone.

Group III.—General condition of patient poor or comparatively good. With much or little sugar. Acid poisoning present. Disease threatening or not threatening the affected part.

The treatment of cases belonging to this group must be palliative until the acid intoxication with

its impending coma shall have disappeared. If, in spite of all our efforts, this cannot be brought about, the very poor prognosis should still deter us from radical operative procedures. Naturally, this does not mean that no efforts to promote drainage should be made. On the contrary, the free incision of tissues impeding the free evacuation of phlegmonous spaces must be practised in any event. But no more than is absolutely necessary should be done. Above all, no radical operation.

The following case histories will be found extremely interesting and instructive in the illustration of the general points.

CASE IV.—Mrs. Sarah G., fifty-four years old, was admitted to my service at Mt. Sinai Hospital, on January 20, 1903. She did not recollect any previous serious illness. Eight days before coming to the hospital she had experienced a sudden and severe pain in the left foot, and soon afterward noted that the foot was cold. Discoloration was seen the following day, and gradually the skin of the affected member turned dusky, then bluish, and then green. There was considerable constitutional reaction, with vomiting. On admission it was seen that the patient was in fair general nutrition, that there was no cardiac disease, and that the entire foot was hopelessly gangrenous. The urine contained a trace of albumin with some pus and epithelium, and there was 4.5 per cent. of sugar with marked acetone reaction. The patient's temperature was about 100° F., her pulse 112, and respirations 28.

The appearance of the foot was green, with an irregular line of demarkation near the ankle, with patches of excoriation, the whole presenting a loathsome picture, to which was added an intolerable stench. Operation, however, was postponed, in order to get rid of the acetone, and, if possible, to increase the amount of urine secreted, which on admission was only twenty-six ounces. Under the influence of copious draughts of water, with the administration of codeine and large doses of sodium bicarbonate, the quantity of urine increased to forty ounces a day, and the acetone disappeared within four days, although the temperature continued high (101°-102°). Then, on January 24th, amputation in the lower third of the thigh was performed. This amputation was done under gas anæsthesia and no sutures were used to approximate the edges of the wound, but only sterile strips of zinc rubber plaster. One week after the operation the sugar had disappeared, and it had not returned, even to the quantity of a slight trace up to the time of her discharge. She was out of bed six days after the amputation, and was discharged perfectly well on March 15th, having made a beautiful recovery.

This case, it will be seen, belonged originally under Group III, and was by treatment so improved that it finally fell under Group II. The operation then resulted in recovery, while from not infrequent observations, I feel certain that the patient would have passed into fatal acetonæmia with coma, had the major operation been performed at once.

CASE V.—B. A. (Group III), fifty-eight years old, was admitted to the hospital on January 18, 1902, after an illness of two weeks. At the beginning of the trouble a dark or dusky area had been noted upon the dorsum of the left great toe. The gangrene progressed painlessly, but sepsis set in, with lymphangitis and swelling of the femoral and inguinal glands. On admission his temperature ranged in the neighborhood of 103° F., with a rapid pulse. There was no coma or stupor, but, in addition to 3 per cent. of sugar in the urine, a marked acetone reaction was noted, and hyaline and granular casts indicated the presence of a nephritis probably septic in character. Believing the bacterial sepsis to be the most important danger in this instance, amputation of the thigh was performed by one of my adjunct surgeons, at my request, and death in coma occurred within twenty-four hours.

The correct treatment for this patient would probably have been palliative only, until the acid intoxication should have disappeared. I do not say that he would have recovered, because the sepsis was so severe that it was almost, if not quite, as important a factor as the acetonæmia. Still, it seems to me that the shock of an operation and, perhaps, the influence in some way of general anæsthesia of any sort, inhibits the elimination of the acid poisons, which, being retained in large amount, contribute to the rapidly fatal outcome.

The cases here reported have been selected from a considerable number in my experience, because they form pretty fair types of the phases of the disease.

The treatment of gangrene of this variety has undergone very decided change during the past fifteen years and is still somewhat in process of evolution. About fifteen years ago high amputation was supposed to be the only proper treatment in almost any stage of the trouble, and accordingly it was resorted to practically whenever consent could be obtained. In the observation of my own cases as well as those of a number of other operators the results were usually bad with an occasional brilliant recovery. But it must be remembered that in those days the examination of the urine consisted merely in the tests for sugar and albumin with the usual microscopical examination of the sediment and an occasional quantitative estimation of urea. The daily clinical routine of testing for acetone, acetoacetic acid, and the estimation of the total ammonia were to the majority of practitioners unknown. Consequently there was no clinical method for the selection of cases for operation and undoubtedly a great number of radical operations were performed when conservatism was indicated, the patients not infrequently passing from anæsthesia almost directly into coma.

The methods of to-day have placed the selection of therapeutic measures in any given case upon a footing more nearly approaching the accuracy which

we expect from science. But still, the final decision belongs and always will belong to *clinical art*—to the skillful application of scientific principles by the practitioner of medicine who, with all the facts in his possession must confidently grasp the situation and with conscientious firmness assume the grave responsibility for which his education has fitted him.

766 MADISON AVENUE.

THE DIAGNOSTIC VALUE OF A PROCTOSCOPIC EXAMINATION IN PROCTITIS WITH SOME REMARKS ON THAT AFFECTION.*

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While most diseases of the rectum are found situated within three inches of the anus, and are therefore readily diagnosed on a digital examination alone, yet there is one affection of the rectum which cannot be diagnosed unless a proctoscopic examination is made. To my mind there is only one pathological condition of the rectum which necessitates the use of the proctoscope to reveal its presence, and that is proctitis. The scanty literature of proctitis, as well as general pathological records, give little information on the frequency with which this condition is found. The writer's belief is that this condition is frequently overlooked by the general practitioner, because the rectal symptoms complained of are not sufficiently marked to invite his attention to a thorough examination of the rectum. Proctitis may be defined as an acute or chronic inflammation of the rectum, characterized anatomically by a swollen, oedematous mucosa and marked congestion of the blood vessels. Clinically, the disease is marked by sensations of weight and fulness in the rectum, with tenesmus, constant straining, and a frequent discharge of large or small quantities of mucus, and sometimes blood or pus. The most common causes which give rise to this inflammatory condition of the rectum are: Impacted fæces, drastic purgatives, pathogenic bacteria, worms, foreign bodies in the rectum, polyps, dysentery, and gonorrhœa. The disease may be tolerably advanced before any special symptoms develop. It is often astonishing to the proctologist to meet with cases of proctitis, in which, though in an advanced stage, the patient has never had symptoms calling for a direct rectal examination. The early stage of this disease is rarely recognized, even by the closest observer,

because the symptoms are of such a nature as to be confounded with catarrhal enteritis. Another reason of failure to diagnose early is the fact that many patients do not complain of the rectum. I frequently meet with such cases, and will therefore report two of them, to demonstrate the absolute necessity of a proctoscopic examination in proctitis. The history of the cases is as follows:

CASE I.—Miss H. B., aged twenty-four years, single, by occupation a saleslady, applied for treatment at the rectal department of the Polyclinic Hospital, in October, 1902, complaining of chronic diarrhœa and a dull pain during the act of defecation in the hypogastric region. She also complained of a sensation of fulness and weight in the rectum. These later symptoms, however, developed about a year after the first symptoms appeared. Her personal and family history were good. She was, however, of a costive habit and often had to taken purgatives. The history of her present illness was as follows: Two years ago she had an attack of diarrhœa associated with colicky pains in the abdomen, for which condition she consulted a physician. After being under treatment for some time the pain disappeared, but the diarrhœa has persisted until the present time. Her stools numbered from eight to ten a day. She was treated for diarrhœa for nearly two years without the least success. The patient did not present any gastric or nervous symptoms and seemed to enjoy good health otherwise. A bimanual examination showed no displacement of the uterus. Repeated examinations of the stools discovered the constant presence of mucus. A digital examination of the rectum revealed no pathological condition beyond a somewhat contracted sphincter ani. Introducing the proctoscope in the rectum and afterwards gradually withdrawing it, I found the whole circumference of the mucous membrane inflamed and oedematous and covered with thick, tenacious mucus. A few slightly ulcerated arrears were observed, which began to bleed when touched with the applicator. An examination of the sigmoid flexure showed no pathological condition or fæcal impaction.

The treatment consisted in daily injections of a solution of potassium chlorate, a drachm to the pint, and a topical application of a 2 per cent. solution of silver nitrate every other day. After two weeks' treatment the number of stools were reduced to five a day, and after three weeks the patient's bowels were normal and all symptoms subsided.

CASE II.—Mr. B. B., fifty-one years old, by occupation a huckster. The family history is good. Patient has always been well, but extremely constipated. About a year ago he had an attack of dysentery of such a persistent nature that medical assistance was sought. While under the physician's care the pain accompanying the attack subsided, but the number of stools was not materially diminished. Since that time he has had a frequent desire to evacuate his bowels. At times several ounces of mucus passed from the bowel. Defecation was attended by pain in the abdomen and a feeling of ful-

* Read at a meeting of the Northwest Medical Society of Philadelphia, April 7, 1903.

ness and weight in the rectum was present all the time within a few weeks before he came under my observation. Patient was of robust build and enjoyed good health. He had not lost flesh or strength, but got gradually weaker. He was extremely anxious to know the nature of his ailment, because some physician had told him that he was developing cancer of the rectum. Examination of the stools showed the presence of a mucopurulent material in abundance. A digital examination of the rectum revealed nothing suggestive of rectal trouble except a tight and hypertrophic sphincter. A proctoscopic examination, however, showed an extremely congested condition of the mucous membrane, which was covered with a heavy discharge. In the upper part of the rectum and at the opening into the sigmoid flexure, slightly raised pearly white spots were seen scattered over the whole circumference of the gut, which, when cleansed with a pledget of cotton on the applicator, left behind a slight ulcerated surface. The same treatment was carried out as in the above case with the same results.

You will observe a similarity between the cases cited. Both had an acute attack of diarrhœa after a period of obstinate constipation. Both had the same form of disease. Both were treated for chronic diarrhœa, but were not relieved. Both cases developed rectal symptoms rather late in the disease. Both cases yielded promptly to the same treatment. These cases illustrate the fact that proctitis may exist for a considerable time unsuspected by either the patient or physician, as the symptoms are usually not marked, and, unless sought for, the condition is frequently overlooked. They also demonstrate that rectal catarrh is easily recognized if the proper methods of diagnosis are adopted. What are the proper methods of diagnosis?

First of all, a digital examination should be made in every instance in which a person complains of chronic diarrhœa. This should be done to ascertain whether or not a stricture exists; for it is to be remembered that advanced cases of stricture of the rectum—benign or malignant—are also characterized by such signs as diarrhœa, mucopurulent and bloody discharges. A digital examination will further detect the presence of polyps, ulceration, and impacted fæces, conditions which excite constant irritation and a desire to go to stool frequently. The next and most valuable method of diagnosis is the use of the proctoscope. By the aid of the proctoscope and a proper light the entire circumference of the lower bowel can be seen and any pathological changes determined. In cases of proctitis the three signs usually laid down as characteristic of catarrhal inflammation, *i. e.*, redness, swelling, and increased secretion will be seen on a proctoscopic examination. No one familiar with the anatomy of the rectum will find it difficult to introduce a tubular speculum ten inches long, and a proctoscope of that length

will answer all practical purposes. In making a proctoscopic examination the patient is placed in the Sims position. The distal end of the tube should be thoroughly anointed with vaseline and slipped through the sphincters while the patient is straining as much as possible. This straining on the part of the patient minimizes the discomfort attending the introduction of the speculum. When the tube is about three inches in the bowel, atmospheric inflation of the rectum will lift the walls out of contact with the distal end of the tube and the direction of the tube can be observed as it passes up into the sigmoid flexure. When introduced to its full length the tube is gradually withdrawn and the whole gut thorough examined. It is very important that the diagnosis of a case of proctitis be made early, so that proper remedial measures may be employed at the beginning to prevent inflammatory deposits and the formation of cicatricial tissue, which produce a stricture of the rectum. There are no positive symptoms by which the diagnosis of proctitis can be made. As a rule tenesmus is present in all cases, associated with frequent stools. The presence of mucus in the dejections is a most valuable indication that the persistent diarrhœa may be due to local disease in the rectum. These symptoms, however should not be relied upon, and a digital and proctoscopic examination should be resorted to in every case, in order to establish a positive diagnosis. If the diagnosis has been made, the treatment will suggest itself to the physician. In treating these cases it is essential to remove the cause first, before local treatment is instituted. The local treatment consists of antiseptic and astringent injections. Copper sulphate, alum, zinc sulphate, potassium chlorate, hydrastis injected into the rectum in the strength of one to four per cent., will be found very effective. The healing of ulcers can be promoted by touching them with silver nitrate. In no case should a rational diet be neglected. In some cases intestinal antiseptics will be beneficial and hasten a cure. In chronic and obstinate cases more radical measures will have to be adopted. With this treatment a cure may be effected in all cases in which an early diagnosis has been made. To much stress cannot be laid on the great importance of a proctoscopic examination in proctitis, and it is to be hoped, that, in the near future, the general practitioner will include in his armamentarium a proctoscope, and be able to diagnosticate this simple form of rectal disease.

It is true that not all cases of chronic diarrhœa are due to local disease of the rectum, but it is equally true that this is more often the case than we are generally led to believe. It is, therefore, clear that a local examination plays an important rôle in the diagnosis. A correct diagnosis will enable us to cure

many of those patients who have gone from one physician to another, but have failed to get relief because a proctoscopic examination was omitted, without which a positive diagnosis of proctitis is impossible.

A NEW METHOD OF DRAINAGE IN EMPYEMA.

By SAMUEL LILE, M. D.,
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Empyema is, by common consent, a term applied to a collection of pus in the pleural cavity, unless some other cavity is specified.

This pus formation may be the result of the same causes that bring about serous effusions, plus the contamination by pus-producing organisms which may gain access through the lungs or more remotely through the systemic circulation; or it may be traumatic.

For any collection of pus within the pleural cavity, from whatever cause, there are several possibilities. First, its fluid portion may be aspirated or be gradually absorbed, the more solid material remaining, which may cement the pleural surfaces together, and finally disappear. Secondly, further production of fluid or pus may take place, giving urgent symptoms and demanding prompt relief. Thirdly, it may be evacuated by spontaneous rupture through a bronchus or by perforation in any one of various directions.

The diagnosis is usually easy; the strictly differential point being between pus and serous effusion, which can be made positively by use of the aspirator, and it matters not which exists, so far as immediate action is concerned, our duty being to evacuate in both cases while the needle is *in situ* and then await results.

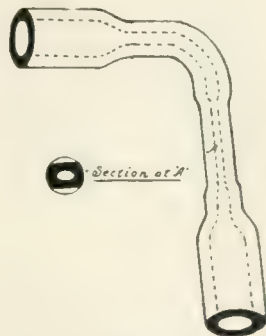
When to Aspirate.—Personally, I prefer to aspirate early, thus making the differential diagnosis, and at the same time indicating the future treatment. If pus is found, evacuate as cleanly as possible. Keep the patient under close observation, and do a thoracotomy as soon as assured that the cavity is refilling.

By making an early diagnosis, then draining early, many, if not all, of the bad symptoms are prevented. I have seen two patients die, in the practice of one of my colleagues, from delay in drainage; all my own patients, some twenty in number, have recovered. One of my patients recovered from a single aspiration; the other nineteen were aspirated early, but refilling promptly took place; hence they were operated on early.

Operation.—The anæsthetic is either an injection of one half or one per cent. of cocaine, first into

the skin, later into the muscles; or chloroform. I prefer the latter in children, as they are freed from fright, and, by being kept perfectly still, the operation is done more quickly and safely. The field of operation is made aseptic. The operator, having previously prepared himself, his instruments, and dressings, for an aseptic operation, makes his incision. Preferring the posterior incision, I make an opening from one inch to one inch and a half long in a line with the angle of the scapula, midway between the ribs, as soon as the cavity is punctured; before removing the knife, a strong forceps, usually one of the Kelly's hysterectomy forceps, is passed along the knife into the cavity. With this the ribs are held apart and the opening maintained until the drainage tube is inserted.

Drainage.—Under this heading I propose to give what is, to me, a new process of drainage, as I have never seen it in any text book or journal, nor have I heard any one speak of it in open discussion. For



Dr. Lile's Empyema Drain.

the past five years I have been using the rubber tubing, with a small glass tube, one inch long, and fitting very tightly, inserted therein, and placing this between the ribs. This affords an open drain at all times. The tube is held in place, either by stitching to the skin, or by piercing the end of rubber tube with a safety pin. This has proved a very satisfactory drain. All cases so treated have made perfect recoveries, but the patients complained continuously of pain as long as the tube remained in, regardless of its length.

Recently, I have constructed a drainage tube of hard rubber, shaped as follows: A hard rubber tube, three-sixteenths of an inch in diameter and two inches and a half long, with a cup shaped funnel on each end, the cups being five sixteenths of an inch in diameter (outside measurement). The tube is bent at an angle, a little greater than a right angle, and not in the centre but so as to leave one arm of the angle one inch, and the other one inch and a half, from the angle (see Fig). The short arm is placed in the pleural cavity. On the long arm a flattened surface is made above and below on which the ribs rest; this prevents it from turning or becoming mis-

placed in any way. It will readily be seen that it can slip neither in or out; yet it drains perfectly. Irrigation can be done through this tube with perfect ease. The tube being inserted, the wound is now closely stitched around it and dressed. After the tube has been worn a few days it can be almost painlessly removed and replaced. The patient suffers no pain, and expresses himself as feeling comfortable.

Dressing.—Iodoform gauze is placed around and over the wound, and a thick pad of cotton covered with gauze over this, and held on by strips of adhesive plaster. The dressing is changed whenever soiled.

After Treatment.—Out of bed in the open air—usually by the second day—good food, moderate exercise, tonics, deep inhalations advised, or else the blowing of water from one bottle to another by means of tubes connecting them, which any one can easily construct.

With this drainage tube I see no reason for resection of ribs, except in cases with sinuses existing for months after removal of the tubes, or in certain tuberculous cases.

Irrigation.—Do not irrigate unless the pus is in large clots or is caseous and so thick that it will not run out.

917—919 COURT STREET.

BLACK CHROMIDROSIS WITH HYSTERICAL PARALYSIS.

By JAMES W. PUTNAM, M. D.,

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CASE.—In April, 1900, Dr. A. G. Sage, of Buffalo, called the writer to see a patient with complete paralysis of all four extremities. I found the patient to be a young woman, aged nineteen years, well nourished.

The examination showed that there was complete loss of power of both arms and legs, and cutaneous anæsthesia of arms, trunk, and legs. The reflexes—patellar and plantar—were present and not exaggerated. The Babinski sign was absent.

There was no loss of bladder control. The spinal region was excessively irritable.

Pressure over the ovaries caused pain. There was no tenderness at the supramammary and inframammary points.

The face and neck muscles were not involved.

The skin of the eyelids and malar regions and the upper portion of the nose was inky black; as, also, was the edge of the mucous membranes of lips. The sensation of the skin was normal.

The history of the onset, as given by the patient, is that one day, when in a car, she was very much annoyed by people staring at her because of her peculiar appearance. On alighting, she felt weak, and on reaching home her muscles suddenly gave

way and she sank to the floor. She was carried to her room and put to bed.

The importance of restoring the confidence of the patient was imperative, and in conversation with the physician in the next room, perfectly audible to the patient, I expressed the opinion that the paralysis was of a transitory nature and would improve by manipulation.

The patient was then assured that she would move her muscles. By positive assurance and command, after making passive movements, she finally made voluntary use of the muscles of the arms and legs. Within a week all trace of paralysis had disappeared.

From Dr. Sage I learned that the patient was a student in the normal school; that in October, 1899, during the menstrual period, she was engaged in the chemical laboratory for four or five hours, most of the time her hands being in cold water, washing glass ware. The menses ceased suddenly and had been suppressed the following five months, excepting for a few hours each month.

In February, the chromidrosis made its appearance on both eyelids, and spread gradually over the upper portion of the cheeks.

She continued attending school, which required great will force on her part, as her appearance always caused comment.

She gave up walking in the streets in the day time, as she was always observed, and frequently annoyed by remarks of strangers. On one occasion a woman, a stranger, followed her home and asked permission to look at her closely.

During these months she observed that whenever she was annoyed or excited or tired, the black areas would grow blacker and larger; then when things went smoothly, the areas would become smaller and a few shades lighter.

For two weeks in July I tried the effect of the static electricity, using the breeze from the wooden ball connection with the positive pole to one side, and from the negative pole to the other side. No effect was observed.

Galvanism was then tried for two weeks without effect, except that I could wipe off some of the substance on the electrode.

Faradism was also useless. During these months I noticed a marked variation in the size and color of the affected area, and always found that when something had gone wrong the spots increased. One illustration will suffice. One afternoon the eyelids and half of each cheek were very black. She explained that she supposed that was due to the fact that she had that morning been very angry at a member of the household who had made some remark about her pet cat.

In treatment by faradism I was able to rub off, on the absorbent cotton covering the electrode, some of the black substance. Several times, when she was excited, the area again became dark.

With a lens, individual hairs of the eyelashes were found covered with it.

Wishing the advice of a dermatologist, I called Dr. Groven Wende, who advised the use of a wash:

R Salicylic acid 1 drachm;
Brandy 4 ounces.
M.

She was sent away into the country, and I did not see her again till December, 1900. She reported that she had had five similar attacks of paralysis lasting from two to six hours.

Under the use of tonics, out-door life, and a life away from home, she has now recovered, so that she has been well and free from symptoms during the past five months.

The total period of amenorrhœa was fourteen months; that of chromidrosis, nine months, and there were six attacks of recurring hysterical paralysis in that time at irregular intervals.

The history of this case shows the close relationship of chromidrosis with disturbed menstruation and the hysterical state. It coincides, in this respect, with the cases reported and quoted by Van Harlingen, in his article on the subject in the *Twentieth Century Practice of Medicine*.

Therapeutical Notes.

In Gastric Ulcer.—*Nord médical* advises the following for the pain and vomiting in gastric ulcer:

R Bismuth subnitrate.....2 grammes (30 grains);
Extract of belladonna, 10 centigrammes (1½ grains);
Potio gummosa (Fr. codex).....120 grammes
(3¾ ounces).

M. Take the above by tablespoonfuls during the 24 hours.

For the Vomiting of Pregnancy.—Steffen (*Nord médical*) recalls that the following prescription was justly popular in the vomiting of pregnancy before it was crowded out by more recent fads:

R Tincture of iodine.....10 to 12 drops;
Water.....120 to 150 grammes (3¾ to 4¾ ounces).

M. A teaspoonful in half a glass of sweetened water every two hours, between meals.

If gastralgia complicates the case, morphine or cherry laurel water may be added; the latter will decolorize the mixture.

Medicated Goat's Blood as a Therapeutic Agent.—This preparation, which is highly thought of in France and Switzerland, is made by gently drying goats' blood which is kept, and powdered as required. A young goat is fed for a month on the herbs burnet (*Sanguisorba officinalis*), celery, parsley, marshmallow, and saxifrage. The arteries are then opened and the blood collected. It is allowed to settle, and the serum having been separated, is dried in the sun or before a low fire.

Goat's blood in this form is sudorific and laxative, and is considered by the peasantry of value in pleurisy and malignant fever; it is given in doses of twenty to eighty grains. The special feed mentioned above is supposed to impart the virtues of the herbs to the blood of the animal. In Switzerland the blood of the chamois is similarly treated and highly esteemed.

Sulphate of Quinine for Cough.—According to *Nouveaux remèdes* for May 24th, Lancereaux says it is necessary to give the quinine in massive

doses, and a mean dose is one gramme (fifteen grains) divided into two, to be taken at half an hour's interval, preferably during the evening meal.

The dose is to be augmented to 1.25 or 1.50 gramme (19 grains to 22 grains, according to its effect, avoiding the buzzing in the ears. In cases of bronchitis, pills of cynoglossum, according to the following formula, are serviceable:

R Mass of cynoglossum.....2 grammes (30 grains).

Divided into ten pills. One pill in the morning and one at night. [Massa pilularum de cynoglossum is a preparation found under various titles and with slightly varying formulæ in the Danish, Swedish, Norwegian, Belgian, Prussian, French, Swiss, and Mexican pharmacopœias. The formula given here is: Dried cynoglossum bark, hyoscyamus seeds, and watery extract of opium, of each 10 grammes (150 grains); myrrh, 15 grammes (225 grains); olibarum, 12 grammes (180 grains); saffron and castoreum, of each four parts; and syrup of honey, 35 grammes (525 grains).] Each pill contains about ⅓ grain of extract of opium.

In Gonorrhœal Dysuria.—*Nord médical*, quoting *Formulaire mensuel de thérapeutique et de pharmacie*, attributes the following to Gerbert as valuable in gonorrhœal dysuria:

R Sodium salicylate, 10 centigrammes (*sic*) (1½ grains);
Extract of belladonna...3 centigrammes (½ grain);
Tincture of orange.....5 grammes (75 minims);
Distilled water.....195 grammes (6 ounces).

M. Two or three tablespoonfuls every two or three hours.

Infantile Hæmaturia.—Joseph Fontanié (*Revue française de médecine et de chirurgie*), in addition to iron perchloride and ergot (by mouth or hypodermically) gives the following formulæ for the treatment of hæmaturia in infants:

R Crystallized calcium chloride 4 grammes (1 drachm);
Syrup of opium.....30 grammes (1 ounce);
Infusion of linden leaves.....120 cc. (3¾ ounces).

M.

Roger's prescription is:

R Crystallized calcium chloride....4 to 6 grammes
(1 to 1½ drachms);
Syrup of bitter orange peel....40 grammes
(7½ drachms);
Old brandy or rum.....30 grammes (1 ounce);
Tincture of cinnamon.....5 grammes (75 minims);
Distilled water.....50 grammes (12½ drachms).

M.

Fontanié advises also the administration of the liver and suprarenal capsule of pigs. He states also that Dieulafoy has obtained ideal results with capsules of turpentine in increasing doses.

Dyspnœa in Chronic Bronchitis.—Bruhl (*Gazette médicale de Nantes*, June 6th) recommends counterirritation on the chest, emetics followed by alcohol, kola or caffeine, and expectorants. For the aged:

R Essence of anise.....1 gramme (15 grains);
Ammonia water.....5 grammes (75 grains);
Alcohol, 90 per cent.....24 grammes (6 drachms).

M. Five or six drops in sweetened water three times a day.

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THE "SIGNED EDITORIAL."

In this issue of the *Journal* we begin the publication of "signed editorials." Those of our readers who are strict of diction may object that there can be no such thing as a "signed editorial"—that a signed article is necessarily not an editorial. Well, we are disposed to concede a good deal to strictness of diction, and we will admit at the outset that we use the term "signed editorial" simply for the sake of convenience, without in the least pretending that it is satisfactorily expressive. Still, our readers may perhaps be willing to admit that a signed article may have a certain degree of editorial quality if

we let them into the secret of the fact that we are in great measure editorially responsible for these signed articles—that is, that we share the responsibility with the writers, which we do not profess to do in the case of other contributions bearing the author's names, but, on the contrary, quite disclaim doing.

These "signed editorials" we shall obtain only from persons amply qualified to speak with authority, and well known to be so qualified. Why, then, it may be asked, do we not publish these articles under the heading of Original Communications? Because, dear reader, they are so short that the writer cannot quote authorities and deploy *pièces justificatives*, but speaks ex cathedra. The two articles of this sort that we present in this issue will, we are thoroughly convinced, be accepted as abundantly justifying our estimate of them. Dr. Deaver, the famous Philadelphia surgeon, and Dr. Williams, the well known medical publicist, need no introduction of ours to the profession.

THE NEW YORK CITY HEALTH DEPARTMENT AND THE SALE OF PROPHYLACTIC AND CURATIVE PRODUCTS.

Dr. Lederle's administration of the Health Department of the City of New York has thus far been thoroughly commendable. Not the least of its titles to commendation by the medical profession, in our opinion, is the fact that Commissioner Lederle now signifies in a letter to the mayor his readiness to recommend the department's renunciation of the practice of selling vaccine, diphtheria antitoxine, etc. Ineffectual efforts have been made for a number of years past to induce the legislature of the State to abrogate the department's authorization to trade in such commodities—efforts founded on the principle that it is not right for the government, national, State, or municipal, to engage in commercial pursuits in unfair competition with individual producers. In the matter of the antitoxines, such competition has been excused on the ground that the department was able to produce them of better quality than could be turned out by individuals. If this excuse ever had a very substantial basis, it was surely valid for only a

very short time. Nobody ever pretended with any show of credibility that such an excuse could be brought forward in the case of vaccine; yet the department was empowered to trade in vaccine long before antitoxines were thought of. It was a grievous wrong. However, let us rejoice that the department has taken the initiative in the movement to correct it.

We understand from Commissioner Lederle's letter to the mayor that it is only to customers "outside this city" that the department will henceforth decline to sell its products, but we trust that the intention really is to stop selling to city customers also, for a total cessation of commercialism is not too much for the medical profession to expect of the department. The Board of Health will of course have to depend upon the Board of Estimate and Apportionment to provide it with the funds necessary to take the place of the proceeds of its sales; failing such provision, it will be crippled in a very necessary part of its legitimate work. We feel sure that the community will sustain the Board of Estimate and Apportionment in such action.

POINTS IN THE TREATMENT OF HERNIA.

An irreducible hernia should always be considered as a dangerous condition even without symptoms indicating that strangulation has ensued. In too many cases the more gradual onset, absence of tenseness or absolute constipation, and the presence of the impulse on coughing are deemed of sufficient diagnostic import to warrant violent and prolonged efforts at taxis.

Strangulation of the gut, with its attendant pathological lesions, may occur so gradually that by the time the patient has sought surgical advice the bowel has advanced to the condition of gangrene. Beyond the gentlest manipulation for a few minutes only, by one who is gifted with lightness of touch, the employment of taxis is fraught with the greatest danger. Why a place is given in textbooks to the description of taxis, and why teachers of surgery continue to teach taxis, the writer cannot understand. That much more harm is the result of injudicious manipulation than of the early application of the aseptic scalpel, the writer's experience has taught him many times over. The elastic constriction of the narrow neck of the her-

nia orifice obstructs the venous circulation, and the bowel becomes bluish in color and soft. The obstruction of the blood current causes a transudation of serum into the walls of the intestine as well as into the hernial sac. This oedema constantly increases the size of the inflamed bowel. If unrelieved, such strangulations progress, as is well known, to total gangrene and necrosis requiring resection of the injured bowel.

Bacteriology has shown that pathogenic microorganisms easily migrate through an intestine the wall of which has been damaged, and cultures from the serum in the sac have frequently revealed the presence of such bacteria. In these cases a successful taxis would return the infected serum into the peritonæum along with the other contents of the sac. The same result might be obtained by the bruising or laceration of the friable intestine during the manipulations. After kelotomy the bowel is always inspected to determine whether it is capable of recovering its lost tone, and, if it is not, a resection is performed. This, of course, is totally unknown when we are using taxis.

Many of the patients whose hernias become strangulated are past the middle period of life, the frequency of hernia reaching its maximum at the age of seventy years, and therefore arteriosclerosis must be considered. A fatal abdominal apoplexy may be caused by the effects of violent taxis upon vessels whose walls are the seat of fibrous changes or calcareous deposits. The writer has seen, upon more than one occasion, the mesentery two inches in thickness from blood clot the result of injudicious taxis, and has also known hernia to be reduced *en masse*, the obstruction not having been relieved, as well as known the bowel to have been ruptured.

Bearing in mind these dangers, one is inevitably led to the conclusion that irreducible or incarcerated hernias are very dangerous conditions, the inability to determine the degree of inflammation present, or whether strangulation has occurred, increasing the danger, which prolonged efforts at taxis may convert into a fatal condition. Surgeons have found that kelotomy in the absence of such taxis is a simple procedure with practically no mortality. When we fail to reduce a hernia by the aid of moist heat and gentle taxis, kelotomy should be immediately done. The common practice of employing

exhausting hot baths or the continuous application of the ice bag is to be condemned, to say nothing of the evil practice of giving opium and atropine.

Finally, the advice of Stromeyer should be clearly kept in mind—if we are called to a case of strangulated hernia in the daytime, the sun should not be allowed to set; if called in the night, the sun should not be allowed to rise, before the strangulation has been relieved.

JOHN B. DEAVER.

INQUISITIONS IN CASES OF SUSPECTED FATAL CRIMINALITY.

A conflict of medical testimony in our courts of law is not always edifying. Harsher terms are occasionally used, when the testimony is that of experts, so termed. In the result our profession is lowered in the esteem of the community, and its influence for good is lessened, the public sense of justice is offended, and the accused sometimes fails of his deserts. Reams of paper have been covered on the subject, and it is not proposed to settle the question here and now. However, a few suggestions may be made as indications towards a clearer treatment of the subject along the right lines. The appointment of official experts whose judgment shall be final is simply unthinkable. In the first place, such finality does not exist, and if it did, we know no process of selection or election for the evocation of its possessors. Then, again, it is out of the question to deny the accused the right of challenging such finality though some new Daniel come to judgment—and so the conflict of testimony begins afresh with emphasized vehemence, and the second state is the worse.

Moreover, the unapproachableness of the permanent official experts from the vantage point of politics or finance might not always be self-evident, leaving the experts to be deemed but unsatisfactory brothers for Cæsar's wife.

The remedy lies in a medical jury of the first instance. Whenever the immediate physical cause of death is in dispute, issue should be joined by the people and the accused; that issue to be tried before a medical jury as an essential prerequisite *sine qua non*.

The contentions of the people must be two: (1) The death of A. was due to other than natural causes. (2) The death of A. was due to —

The contention of the defense must be one or other of the following: (1) The death was due to natural causes; or, (2) the death was due to — and as charged; or, (3) the death was due to causes unknown and not as charged. It will be seen that further procedure must logically depend upon the findings.

Now, as to the selection of such medical jury. I had rather indicate how it should than how it should not be made. A panel of five hundred medical jurors (I am speaking for New York courts) should be struck at the beginning of each judicial year by the judges of the Supreme Court, care being taken to select men known as prominent in the ranks of teachers or practitioners. There is no body of physicians in the world to compare with ours, and mistakes in selection will not occur with ordinary care. When the occasion arises, the jury should be taken from this panel by ballot. The tomfoolery of qualifying witnesses as experts will be swept away. Nonsense talked by the witness, and hair splitting on the part of the counsel must then count for naught. Each juror should receive not less than fifty dollars a day for his services—this estimate being based upon a double ordinary consultation fee, taking the time spent into consideration.

A certain amount of experience has convinced me that any essay at unravelling the tangled skeins of medical polemics by a lay jury is likely to prove "a mockery, a delusion, and a snare."

HAMILTON WILLIAMS.

TRAUMATISM AS A DETERMINING FACTOR OF ACUTE TUBERCULOSIS.

Two recently reported cases call attention to the part played by traumatism in determining the development of acute tuberculosis. In the *Berliner klinische Wochenschrift* for May 6th, Dr. R. Luecke reports the case of a boy who fell while skating, another boy stepping on his abdomen. The child gave evidence of abdominal disease and died in two weeks. At autopsy diffuse tuberculous peritonitis, caseous degeneration of the mesenteric and mediastinal glands, and traces of a previous peritonitis were found. The other case was recorded in the *British Medical Journal* for May 23rd. A man

was struck at the base of the right lung with a heavy pair of tongs. "Cough did not appear for several months, when tubercle bacilli were also found." But immediately subsequent to the injury he complained of general weakness and there was found an area of consolidation at the right base in the axillary line. The author refers to the usual theory that, in the relation between pleurisy and phthisis, the pleurisy is due to an underlying tuberculosis, and holds that, on the contrary, it is just as likely that the pleurisy is the starting point of the tuberculosis, as it was presumably in this case. The case first cited seems to bear out his view. Doubtless the tubercle bacilli must first be on hand before a tuberculosis can be set up; but considering the universal distribution of that mischievous organism, some determining factors for its successful attack must be superadded, and it seems more than likely that traumatism of the large cavities, such as those sustained in the cases under consideration, are sufficiently effective.

A SUMMER SCHOOL IN PHILANTHROPIC WORK.

Philanthropic effort, no less than other things, needs organized and scientific training to effect the greatest possible good. Properly directed philanthropic effort comes indirectly, even where it is not directly so concerned, within the domain of preventive medicine. There is much that is admirable in the programme of the Summer School of Philanthropic Work conducted by the Charity Organization Society of the City of New York, under the direction of Mr. Philip W. Ayres. Among the subjects dealt with are The Treatment of Families in which there is Sickness; The Influence of the Tenement and the Street upon Children; Child Labor and Compulsory Education; When Children should be Separated from their Parents or Guardians; After the Institution, What? etc. There are also sections on Medical Charities, Institutional Care of Adults, and Neighborhood Improvements, the details of which, being essentially medical, are given in our news columns.

THE CARE OF THE INSANE AND THE STUDY OF INSANITY IN THE STATE OF NEW YORK.

The State Commission in Lunacy has recently added to its laurels by the improvements it has secured in the care of the insane and in the study of insanity—notably by its care of the State Pathological Institute, the extension of its system of inspection, and its plan for establishing a colony for the insane. Reception hospitals for acute curable cases are still in abeyance, but it is not to be doubted that, under the inspiration of the commission, they will soon be established.

News Items.

Society Meetings for the Coming Week:

MONDAY, July 6th.—New York Academy of Sciences (Section in Biology); German Medical Society of the City of New York; Morrisania Medical Society, New York (private); Brooklyn Anatomical and Surgical Society (private); Corning, N. Y., Academy of Medicine; Utica, N. Y., Medical Library Association; St. Albans, Vt., Medical Association; Providence, R. I., Medical Association; Chicago Medical Society.

TUESDAY, July 7th.—Elmira, N. Y., Academy of Medicine; Ogdensburg, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Hudson, N. J., County Medical Society (Jersey City); Androscoggin, Me., County Medical Association (Lewiston); Medical Society of the University of Maryland (Baltimore).

WEDNESDAY, July 8th.—American Microscopical Society of the City of New York; Society of the Alumni of the City (Charity) Hospital; Lenox Medical and Surgical Society (private).

THURSDAY, July 9th.—New York Academy of Medicine (Section in Pædiatrics); New York Academy of Medicine (Section in Otolgoy); Brooklyn Pathological Society; Medical Society of the County of Cayuga, N. Y.; South Boston, Mass., Medical Club (private).

FRIDAY, July 10th.—German Medical Society of Brooklyn; Medical Society of the Town of Saugerties, N. Y.

Change of Address.—Dr. Smith Ely Jelliffe to 64 West Fifty-sixth Street, New York.

Dr. L. L. Aultz, to Carbondale, W. Va.

Dr. Dexter D. Ashley to 337 Lexington Avenue, New York.

Dr. Edward Paulding to 314 West Forty-fifth Street, New York.

NEW YORK, CITY AND STATE.

A Bequest for a Hospital in India.—By the will of Ezra P. Hoyt, of New York, \$100,000 is to be set aside for the erection and maintenance of a memorial hospital at Jhansi, British India.

Brooklyn Eastern District Hospital.—It is believed that a large sum, probably between \$25,000 and \$35,000 has been left to this hospital by the will of George A. Brown, the aged builder, who died recently at his home in Brooklyn.

The Cost of Consumption.—After a compilation of statistics, Dr. Biggs shows that the prevalence of consumption among the poor alone costs the city of New York \$23,000,000, and the country at large \$330,000,000.

A Hospital in West Fifty-first Street.—A hospital consisting of five stories and basement will be built on West Fifty-first Street, between Ninth and Tenth Avenues. The building will be of brick, limestone, and terra-cotta. It will replace the building now used by the Sisters of St. Elizabeth.

Binghamton State Hospital.—A visit of inspection by the State Lunacy Commission has resulted in plans for the improvement of the State Hospital, which will include a tuberculosis hospital at a cost of \$30,000, to accommodate one hundred patients, and a residence for the superintendent, Dr. Charles G. Wagner.

A State Investigation on Dysentery.—The State antitoxine laboratory at Albany has entered into an arrangement with the Rockefeller Institute to cooperate with it in investigating the causes and treatment of dysentery. This is a consequence of the success of the department's work on this subject last summer in the district of Yonkers and Mount Vernon.

The Post-Graduate Medical School.—According to the annual announcement, 639 physicians from various parts of the United States and Canada have attended the Post-Graduate Medical School during the past season. A new system has been instituted by the faculty by which certificates of proficiency will be granted to such doctors as attend the clinics continuously for six months and pass a satisfactory examination on any one subject. No undergraduates in medicine are admitted to the school.

The New York State Medical Association, Third District Branch.—The third district branch of the association, comprising the counties of Broome, Cayuga, Chemung, Chenango, Cortland, Delaware, Madison, Onondaga, Otsego, Schuyler, Seneca, Tioga, and Tompkins, met on June 25th, in Syracuse, N. Y. The following officers were elected: President, Dr. F. D. Higgins, of Cortland; vice-president, Dr. F. J. Kaufman, of Syracuse; treasurer, Dr. Frank Kenyon, of Scipio; secretary, Dr. A. W. Green, of Binghamton. Binghamton was selected as the next place of meeting.

Sale of City Antitoxine.—In a report to Mayor Low, on June 19th, Health Commissioner Lederle recommends that the sale of the city's antitoxine to persons outside the city be discontinued, a first-class quality being now manufactured by private firms. The loss of money from the sale of antitoxine in a year, amounts, it is estimated, to \$12,000. This loss will have to be met by the Board of Estimate and Apportionment in making appropriations for the health department. Dr. Lederle also recommends that the department of health shall hereafter dispense all its laboratory products free on proper requisition by department officers or private physicians.

The Association of Graduate Nurses of Northern New York.—The final meeting for the summer was held in Albany on June 29th. The association had previously sent out the following statement: "As this is the last meeting of the local organization before joining the State association, all nurses who have not joined or are not acquainted with the object of these meetings are requested to attend. Although a number have availed themselves of the opportunity of joining this association, there are comparatively few members when we consider the number of nurses in Albany and vicinity. It is necessary to have ten members to cast one vote in meetings of the State association. If we are to have proper representation and a voice in the matters pertaining to our profession in the State we must take more active interest, and if possible in-

duce others to join and become interested. At present no Albany nurse is eligible as a member of the regents' examining board for the registration of nurses, as recently created by the recently passed Armstrong bill."

A Summer School for Philanthropic Work.—The following sections of the programme of the Summer School in Philanthropic Work, conducted by the Charity Organization Society of the city of New York are of such distinctly medical interest that we reproduce them. The meetings will be held in the library of the Charity Organization Society in the United Charities Building, Fourth Avenue and Twenty-second Street, at 8.30 p. m.

MEDICAL CHARITIES.

Four days to this topic. Dr. Silas F. Hallock, of New York, in charge.

Thursday, July 16th.—The Management of Contagious Diseases in New York, by Dr. William Hallock Park, of the New York Municipal Laboratory.

Friday, July 17th.—What the Charity Worker Should Know of the Treatment and Prevention of Tuberculosis. By S. A. Knopf, M. D., New York.

Saturday, July 18th.—Social Factors in the Prevalence of Consumption. By Miss Lilian Brandt, statistician of the Committee on the Prevention of Tuberculosis, Charity Organization Society.

Monday, July 20th.—The Problem of Caring for Children in Institutions. By Mr. R. R. Reeder, superintendent of the New York Orphan Asylum. This subject naturally falls in the preceding section, but it is treated at this time because Mr. Reeder cannot be present on the earlier date.

Tuesday, July 21st.—If the conditions permit, Dr. Alvah Doty, health officer of the Port of New York, will take the members of the school to visit the quarantine station and explain its work.

INSTITUTIONAL CARE OF ADULTS.

Three days to this topic. Mr. Alexander Johnson, superintendent of the School for Feeble-minded Youth, Fort Wayne, Ind., in charge.

Wednesday, July 22nd.—The Almshouse. A study of development. By Miss Mary Vida Clark, secretary, State Charities Aid Association, New York.

Thursday, July 23rd.—Defectives and Their Care. By Mr. Alexander Johnson.

Under the direction of Dr. Henry S. Curtis, of Columbia University, visits will be made to vacation schools, playgrounds, and the evening recreation schools.

Friday, July 24th.—Principles Underlying the Problem of Crime. By Mr. Charlton T. Lewis, president of the New York State Prison Association.

NEIGHBORHOOD IMPROVEMENTS.

Four days to this topic. Mr. Edward T. Devine in charge.

Saturday, July 25th.—Possibilities of Home-making in Tenements.

The work of the tenement-house inspectors in the New York city department will be explained.

Monday, July 27th.—A continuation of the study of tenement-houses.

PHILADELPHIA AND PENNSYLVANIA.

Dr. Lorenz a Total Abstainer.—It is stated on good authority that Dr. Lorenz, the Viennese orthopaedic surgeon, states that he finds the slightest indulgence in alcoholic beverages detrimental to his steadiness of hand.

The First Operation in the New Samaritan Hospital.—An operation for the relief of aneurysm of the aorta was successfully performed by Dr. Edmond Holmes, on June 13th, at the Samaritan Hospital, before a number of prominent Philadelphia surgeons. It was the first operation in the new building.

The Bureau of Public Health.—Dr. Edward Martin, director of public health and charities, has promoted Dr. A. A. Cairns, assistant medical inspector of the bureau of health, to the position of assistant to Medical Inspector Taylor. Dr. W. S. N. Fields, one of the vaccinating physicians, will, it is said, succeed Dr. Cairns.

Policemen as Sanitary Teachers.—Cards bearing the following inscription will be handed to every householder by patrolmen in the city of Philadelphia:

"Important notice to householders: Water containing typhoid fever germs is rendered harmless by boiling for one minute. Boil water in the evening. Keep it in a clean cool place over night. Keep free from dust."

The Board of Medical Examiners, representing the Medical Society of Pennsylvania, held sessions from June 23rd to 27th, at Industrial Hall, Philadelphia, and at the Central High School building, Pittsburgh. There were 247 applicants present at Philadelphia, and 145 at Pittsburgh. The examiners will convene at Haddon Hall, Atlantic City, on July 28th, to compare averages, and applicants will be notified of the results on August 1st.

The Pennsylvania Hospital.—Dr. John Heyshaw Gibbon has been appointed to fill the vacancy on the surgical staff of the Pennsylvania Hospital, caused by the death of Dr. Thomas G. Morton. Dr. Gibbon is a graduate of the Jefferson Medical College, of the class of 1890, and has been for some time an assistant to Dr. W. W. Keen, professor of surgery at the Jefferson Hospital. He has held the position of resident physician at the Polyclinic Hospital, and later, that of chief surgeon at the same institution. He has also served as resident physician at the Pennsylvania Hospital.

Municipal Hospital Criticized by Dr. Edward Martin, of the Health Department.—After a visit of inspection by Dr. Edward Martin and Dr. A. C. Abbott of the board of health, the former expressed his opinion that there was room for great improvement in many departments of the hospital, and particularly emphasized the need of rigid disinfection of nurses and attendants who are continually entering and leaving the hospital. He also finds that the arrangements for the disposal of infected material and refuse are entirely inadequate. The hospital itself is out of repair in many portions, the smallpox pavilion being in the worst condition. The new buildings for the hospital will not be completed for at least one year.

Philadelphia Health Report.—The report of contagious diseases, compared with that of the previous week, is as follows:

Week ending June 27th. Week ending June 20th.

	Cases.	Deaths.	Cases.	Deaths.
Diphtheria ..	56	4	52	4
Scarlet fever	48	20	79	25
Typhoid fever	141	19	147	9
Smallpox ...	29	3	35	8
Totals	261	37	313	46

This table shows a decrease of fifty-two in the total of new cases of contagious disease as compared with the preceding week.

Typhoid Fever is general all over the city, but the greatest number of cases by wards is shown in this table:

Wards.	Cases.	Wards.	Cases.
First	8	Twenty-ninth	14
Twenty-fourth	4	Thirty-fourth	8
Twenty-fifth	10	Thirty-sixth	6
Twenty-eighth	17	Thirty-ninth	4

The new cases of smallpox are reported from wards as follows:

Wards.	Cases.	Wards.	Cases.
Seventh	1	Thirty-fourth	1
Nineteenth	3	Thirty-fifth	1
Twenty-eighth	2	Thirty-sixth	1
Twenty-ninth	2	Thirty-seventh	1
Thirtieth	1	Thirty-eighth	7
Thirty-second	2	Forty-second	1
Thirty-third	1		

Deaths from all causes numbered 466, compared with 420 for the previous week, and 428 for the corresponding period last year.

The Filtration Plants.—The Belmont filter plant, which will furnish West Philadelphia with filtered water, will, it is expected, be completed by April, 1904. By means of these filtration plants and the consequent purifying of the water, the mortality from typhoid will be enormously reduced, according to the best authorities in America and in Europe, where the experiment has been tried. This water will also lessen the possibility of malarial fever.

Dr. Adolf Lorenz on June 29th made a final examination of the condition of his patients at the Jefferson Hospital, before his return to Europe. He pronounced Mary Illinsworth, who had a single dislocation of the hip, and Rosie Cohen, who had a double dislocation, as practically cured. Marion Green, the other patient, had not progressed so favorably as the others, and a new cast was made for her. Mary Illinsworth is able to walk, but the others have yet to learn how to use their limbs. Dr.

Lorenz said: "I found that all three cases have progressed satisfactorily. Two are practically cured and the other soon will be."

The Philadelphia Water Supply.—Dr. Lewis C. Wessels, assistant medical inspector, who has been making an examination of the condition of the Schuylkill River and its tributaries has concluded his inspection. It is his opinion that the present intersecting sewer is not able to carry off the surface drainage along the river and canal, and that a certain way for the city to escape from the pollution of the river would be to construct an aqueduct from Shawmont to the Queen Lane pumping station. Dr. Abbott, chief of the bureau of health, has recommended that the intake at Queen Lane pumping station be changed so as to avoid taking in the detritus that now finds its way into the pipes. In discussing the condition of the water supply Dr. Abbott said: "It would appear that, roughly speaking, typhoid fever was found to be the most prevalent at times when the river was the lowest. When the Schuylkill River is at its lowest stage, the city pumps the water about as fast as it flows, so that it gets the benefit of all the pollution, while if the water is high, there is that much dilution of the sewage that runs into the stream."

Medical Alumni Meet in Philadelphia.—The alumni of the University medical department met at Houston Hall, Philadelphia, on June 16th. Roland G. Curtin, of the class of '66, was elected president. There was a considerable attendance of the class of '73, and of that of '83, these members being seated at special tables at the luncheon. Dr. James Tyson spoke on the scope of the society.

With the exception of the election, which occupied most of the time of the session, the only business of importance which came up was that of the report of the committee on the reorganization of the society, and this was referred to the original committee.

The following officers were elected: President, Roland G. Curtin, '66. Vice-presidents, Philadelphia, R. A. Cleemann, '62; S. S. Stryker, '66; Wharton Sinkler, '68; Des Moines, Iowa, James T. Priestly, '74; Pittsburgh, Pa., Charles A. Wishart, '73; York, Pa., Isaac C. Gable, '77; San Diego, Cal., William A. Edwards, '81; Galveston, Tex., Allen J. Smith, '86. Historian, Charles W. Dulles, '75. Secretary and treasurer, William S. Wadsworth, '97. Executive committee (for one year), James Tyson, '63; Charles K. Mills, '69; H. H. Whitcomb, '80; Joseph Leidy, '87; M. W. Zimmerman, '88; George C. Stout, '91; J. D. Steele, '93; (for two years), De Forest Willard, '67; William Barton Hopkins, '74; William J. Taylor, '82; B. Franklin Stahl, '87; J. Alison Scott, '89; Joseph Sailer, '91; Edward H. Goodman, Jr., '02; (for three years), G. C. Davis, '79; J. H. W. Rhein, '90; John G. Clark, '91; C. Y. White, Jr., '95; Frederick Fraley, Jr., '99; Edwin T. Robinson, '00; William D. Richmond, '03.

CHICAGO AND ILLINOIS.

The Chicago Medical Society.—At the late meeting of the Chicago Medical Society, Dr. Robert B. Preble, of Chicago, was elected president. Dr. Preble is a graduate of the University of Michigan and of Northwestern Medical College, and has served in the Vienna hospitals in postgraduate work.

Rush Medical College to be Reorganized.—The proposed reorganization of Rush Medical College as an integral part of the University of Chicago is practically assured. At the Rush convocation exercises, held in Chicago on June 17th, Dr. Frank Billings said that the \$1,000,000 promised by the Rush authorities would be raised by the time appointed, July 1st. On July 1st it was announced that the amount had been raised.

Registration of Births in Illinois.—Under the provisions of a law recently enacted in Illinois physicians and midwives, after July 1, 1903, will be required to report all births to the county clerks, except in the cities of Chicago and Peoria, in which reports will be made to the health commissioner. Physicians, midwives, and coroners are required to report deaths directly to the State board of health, except in those cities which have burial permit ordinances.

"The Christian Hospital."—By this name an institution has been thriving in Chicago, the plan of which is to dispose of "memberships" on the staff of the hospital. For twenty-five dollars, the maximum fee, the applicants received a "beautifully engrossed certificate which imparts confidence to patients," while, for other sums "official buttons" and other insignia wherewith to impress the credulous were retailed. The institution is under consideration by the federal grand jury.

A Chicago Hospital Sued for \$80,000.—In a suit filed on June 15th in the Circuit Court of Chicago, the directors of the Chicago Union Hospital are made the defendants in the action for the recovery of damages to the amount of \$80,000, by Robert R. Clark, on the ground that neither a permit from the city, nor the necessary frontage consents were secured by the hospital, and that the plaintiff's property had suffered deterioration through the proximity of the hospital.

A Journal of Infectious Diseases is to be issued in the fall, under the editorship of Professor Ludwig Hektoen and Professor Edward O. Jordan, of the University of Chicago. The expenses, which it is estimated, will amount to \$5,000 annually, will be met by Mr. and Mrs. Harold McCormick. This agreement is made for an indefinite term, and amounts to a \$125,000 endowment. Since the death a few years ago of their son, Jack Rockefeller McCormick, Mr. and Mrs. McCormick have founded the institute for the Study of Infectious Diseases, connected with Rush Medical College. The journal will give to the scientific world the results of work done there and in other laboratories.

GENERAL.

Saginaw General Hospital.—A gift of \$3,000, in the form of a bequest, was recently made to this hospital by Mrs. Emeline Penoyer. The purpose of the gift is the endowment of a free bed.

A Stomach Worth \$5,000.—A suit has been brought in Milwaukee against a physician for \$5,000 for having removed a woman's stomach and refusing to replace it. The plaintiff is the patient's husband.

Medical Examiners Elect Officers.—Dr. J. Taber Johnson has been appointed president of the Board of Medical Examiners in Washington, D. C., for the coming year, and Dr. George C. Ober is reelected secretary for the eighth term.

The Pittsylvania County Medical Society.—By this name a new society was organized, on June 11th, at Chatham, Va., with Dr. John C. Anderson, of Minnesota, as president; Dr. W. B. Boyd, of Spring Garden, vice-president, and Dr. W. P. Parrish, of Chatham, secretary and treasurer.

Fort Collins, Colo., Physicians Organize.—Under the name of the Fort Collins Hospital Association, a number of physicians of Fort Collins, Colo., have combined, with a capitalization of \$50,000. They propose to equip a building which has been secured for hospital purposes.

The House-fly a Transmitter of Disease.—Dr. L. O. Howard, the entomologist, of the department of agriculture, emphasizes the part played by the common house-fly as a prolific transmitter of disease, especially typhoid fever. Absolute cleanliness in stables and stable yards is insisted on as one great preventive of flies.

A New Denver Hospital.—A new hospital will be erected at West Seventh Avenue and Evans Street to take the place of the old Steele Hospital. The work will be started on an appropriation of \$7,500 made this year. The building will be two stories in height and built of pressed brick, and will be modern in every respect.

The Medical Alumni of Western Reserve University.—The annual meeting and banquet of the Alumni Association of the Western Reserve University took place on June 17th, in Cleveland, Ohio. The meeting was largely attended. One of the features of the meeting was the gathering of the class of 1893. Only three members were absent.

Merging of Laura Memorial and Miami Medical College, Cincinnati.—The question of merging the business of the Laura Memorial and the Miami Medical College, without any property transfer was considered recently at a committee meeting in Cincinnati. The Laura Memorial is a Presbyterian institution and was endowed by Alexander McDonald, in memory of his daughter, Mrs. E. K. Stallo. The Miami Medical College is one of the oldest institutions of the kind in that part of the country.

A Tuberculosis Hospital for Cleveland.—A municipal tuberculosis sanitarium was opened in Cleveland on June 30th, whither all patients now under treatment for tuberculosis in the city hospital will be removed and treated.

Health of Washington.—The mortality for the week ending June 20th was 21.8 per 1,000 per annum, for the preceding week, 18.4, and for the corresponding week of 1902 21.6. Of the decedents 71 were white, death rate to population 18.9, and 48 colored, death rate 28.4.

The Fox River Valley Medical Association.—The summer meeting of the Fox River Valley Medical Association will be held in Menominee, on July 21st and 22nd. The association has several hundred members. The entertainment arrangements are in the hands of the Marinette and Menominee Medical Societies.

Yellow Fever in Mexican Ports.—The ports of Tampico, Progreso and Merida, are suffering from an epidemic of yellow fever. In the latter place the manager of the Consolidated Railways of Yucatan has died of the disease, and no competent railroad man is willing to fill his place at the risk of getting the fever. In Tampico, several unsanitary houses have been burned.

Royal Arcanum Bed Fund.—The local councils of the Royal Arcanum in Washington have formed a hospital bed fund association, whereby sick and disabled members of the order who lack funds may obtain adequate medical care. Arrangements have been made with the principal hospitals and with the police force that the object may be properly attained.

Milk Tickets Under Suspicion.—Health Officer Friedrich, of Cleveland, has sent the following communication to every milk peddler in Cleveland: "In order to prevent the spread of contagious diseases, the board of health has to insist that every milk dealer use sanitary milk tickets, which are handled by milk buyers only once and are strictly non-circulatory." "Unless they comply with this order at once," says Dr. Friedrich, "we will withdraw their licenses."

Medical Society of City Hospital, St. Louis.—A regular meeting of the alumni of the St. Louis City Hospital was held on June 18th, in St. Louis. A paper on Spinal Injuries was read by Dr. N. B. Carson, with discussion opened by Dr. Francis Reder and Dr. Wallace Sharpe. Dr. Joseph L. Boehm read a Report of a Case of Acute Septic Peritonitis, following Urethral Stricture; Periurethral Abscess.

The Health of Manila.—In a report to Surgeon-general O'Reilly, in Washington, from the medical officers in the Philippines, it is shown that the death rate of Manila for the first quarter of the past four years has decreased steadily from 46.80 per thousand of the population for the first quarter of 1900 to 22.17 for the first quarter of 1902. This is attributed to proper medical and surgical treatment and improved sanitation.

Preparations for the Fourth.—The New York State department of health, in anticipation of probable tetanus cases following on the Fourth of July celebrations, has made a large provision of antitoxine, for use as a prophylactic in cases of wounds sustained at that time.

Borax Tests to be Suspended till October.—Dr. Wiley, of Washington, D. C., who has for some time past conducted experiments in the administration of borax in the preparation of food, with a view to determining its qualities as a harmless or deleterious substance in diet or in the preservation of food, has closed his laboratory and free boarding house for the summer, one reason assigned being that the proximity of the scientific kitchen to the laboratory is likely to render the temperature of the latter more torrid than desirable. Dr. Wiley expects to resume his experiments on October 1st.

Disinfection of Rooms after Death by Consumption.—Dr. Isenberg, of the board of health of Cambridge, Mass., advocates the entire renovation of the quarters occupied by a consumptive patient, the place being previously examined by an inspector on the death of the patient. The walls, ceilings, and woodwork are to be thoroughly washed with a strong solution of washing soda and hot water, after which they should be papered, kalsomined, or painted. Renovation is easier, more effectual, and commends itself to a new tenant, rather than so-called disinfection which necessitates the use of materials and methods not universally familiar, and often leaves the apartment in an undesirable condition.

The Ontario Medical Association.—The twenty-third annual meeting of the association was held in Toronto, Canada, on June 23rd, Dr. J. C. Mitchell presiding. The meeting was well attended by physicians from all parts of the Province, some physicians from New York State and elsewhere being among the guests. Dr. Mitchell, in his address, dwelt on the value of vaccination as a preventive of smallpox. The following officers were elected: President, Dr. J. F. W. Ross, of Toronto; vice-presidents, Dr. Burt, of Paris, Dr. Turnbull, of Goderich, Dr. J. C. Connell, of Kingston, Dr. J. H. Elliott, of Gravenhurst; secretary, Dr. C. P. Lusk, of Toronto; treasurer, Dr. A. R. Gordon, of Toronto.

The Army Medical College.—A site has been selected for the proposed institution at the southwest corner of Connecticut Avenue and Grant Road, on the south side of the property known as Fairview. It contains about forty acres. In addition to the Army Medical School, it is also proposed to build an Army Hospital on this ground. No appropriation has yet been made, although the general scheme recently received the sanction of Congress, and the general details will be submitted at the next session.

The Minnesota State Medical Society.—The thirty-fifth annual session of the society was held in St. Paul, Minn., beginning June 17th. A paper

entitled, The Organization of the Minnesota State Medical Society was read by Dr. J. N. McCormick, of Bowling Green, in which he urged the matter of organization upon the basis of liberality recommended by the American Medical Association, which is that all "regular practising physicians" be admitted to the ranks of the organization, irrespective of school or so-called sect; also that the county organization be made the basic unit, so that any member of the profession belonging to his county organization, shall, in virtue of that membership, belong to both State and national organizations. Dr. McCormick also advocated a more thorough acquaintance between physicians. Dr. Fullerton, of St. Paul, reported that all but a few of the county organizations of the State had been reorganized on new lines during the year, and had been brought under the new constitution, which was adopted, in 1901, by the National Medical Society. President Andrews, of Mankato, made an address, dwelling on the benefits of reorganizing the society under the new constitution. The following is the list of officers elected for the forthcoming year: President, Dr. Charles L. Greene, of St. Paul; first vice-president, Dr. Charles Hills, of Pine Island; second vice-president, Dr. Jennette McLaren, of St. Paul; third vice-president, Dr. W. L. Darling, of St. Peter; secretary, Dr. Thomas McDavitt, of St. Paul; treasurer, Dr. R. J. Hill, of Minneapolis. Dr. W. A. Hall, of Minneapolis, was elected a member for two years to the house of delegates of the American Medical Association, and Dr. William Davis, of St. Paul, was chosen as holdover delegate.

To the Members of the Medical Profession.—Dr. Daniel Lewis, president of the American Congress on Tuberculosis writes that at a conference of the officers and advisory committee held in New Orleans, May 7th, some important changes were made. The plans as previously announced to hold the congress in St. Louis, in 1904, were changed. Washington, D. C., was chosen as the place of meeting, and the time changed to April 4th, 5th, and 6th, 1905. As there is to be an international congress on tuberculosis, at Paris, in 1904, it was deemed possible that some foreign delegates might be prevented from attending the Washington meeting on that account. The plan and scope of the American congress being in reality international, the postponement of the meeting to the spring of 1905 will give the management ample time for perfecting details upon which the success of a congress largely depends. One committee, to have charge of the Section of Pathology and Bacteriology, is as follows: Dr. Simon Flexner, chairman; Dr. William H. Welch, Dr. George J. Adami, Dr. Theobald Smith, and Dr. F. F. Westbrook. Committees in charge of other sections or departments will be announced later. Dr. George Brown, of Atlanta, Ga., is the executive officer of the congress, and all who desire to present papers should apply to him. Any circulars or communications purporting to be in the interests of the American Congress on Tuberculosis, which do not appear with his sanction as secretary, do not relate to the congress which was arranged last year, and the organization of which has already so far advanced as to insure its success from every point of view.

Pith of Current Literature.

BRITISH MEDICAL JOURNAL.

June 13, 1903.

1. Muscular Movements and their Representation in the Central Nervous System. By C. E. BEAVOR.
2. The Treatment of Cancer of the Rectum. By W. W. CHEYNE.
3. The Surgery of the Simple Diseases of the Stomach. By B. G. A. MOYNIHAN.
4. Case of (So-called) Idiopathic Dilatation of the Oesophagus, with a Suggestion as to Its Nervous Origin. By C. B. LOCKWOOD.
5. The Beneficial Results of Gastroenterostomy in Some Cases of Irremovable Carcinoma of the Stomach, in which the Pylorus is not Obstructed. By BILTON POLLARD.
6. Case of Hypertrophic Pulmonary Osteoarthropathy. By S. W. CURL.

1. Muscular Movements.—(The first of the Croonian lectures.) To be abstracted on completion.

2. Cancer of the Rectum.—Cheyne states that the treatment of cancer of the rectum resolves itself into three alternatives: (a) to leave the disease alone, relieving the symptoms as they arise, using local injections, laxatives, opium, and scraping away the fungating masses if they cause obstruction; (b) colotomy, which removes the risk of obstruction, and may also relieve some of the symptoms, such as tenesmus, etc., but it does not stop the severe pain due to involvement of the sacral plexus, nor does it avert the extension of the disease to other organs; (c) removal of the affected portion of the bowel, in those cases where the diagnosis is made early enough, and the patient is strong enough to stand the operation. The author reckons the mortality of excision of the rectum as from 5 to 10 per cent. as the result of recent improvements in the operation. The chief local contraindication is the fixity or otherwise of the bowel. Fixity of the bowel means infiltration of the whole thickness of the rectal wall and extension into the surrounding tissues. A high position of the cancer is a serious matter, but not a complete contraindication. The author does not favor a preliminary colotomy, and holds that this procedure is called for only in exceptional cases. Four methods are employed of gaining access to the disease. The perineal and vaginal are only suitable where the disease is quite low, the sacral and abdominal where the disease is higher up. In the majority of cases the sacral method is the most suitable. All the usual aseptic precautions should be taken, and the author always stitches up the anus tightly to prevent the escape of fæces. He also generally gives prophylactic injections of anti-streptococcus serum. An attempt should always be made to bring the upper end of the gut down to the anus, but end-to-end union is not satisfactory. The proximal end should be drawn down into the distal end for at least half an inch, and then sutured. In cases of sacral anus the bowel should be given a half or three quarter turn before bringing it out.

3. Stomach Surgery.—Moynihan discusses the surgery of the simple diseases of the stomach as follows: (a) Perforation; twelve operations, of which six were successful. (b) Hæmorrhage from a gastric or duodenal ulcer may be (1) latent or concealed, always trivial, and often unconscious; (2) intermittent, but in moderate quantity occurring spontaneously and with apparent caprice at infrequent intervals; the life of the patient is never in jeopardy from loss of blood though anæmia is a persisting symptom; (3) following a warning exacerbation of chronic symptoms; it is rapidly repeated, always abundant, its persistence and excess cause grave peril, and will if unchecked cause death; (4) instant, overwhelming and lethal.

Surgical intervention is rarely needed in cases of hæmorrhage from acute gastric or duodenal ulcer. When it is called for, gastroenterostomy, speedily performed, is the surest means of arresting the hæmorrhage. A search for a bleeding point is futile, harmful, and unnecessary. In all cases of hæmorrhage from a chronic ulcer an operation ought to be performed at the earliest possible moment. Search for, and local treatment of, the ulcer or ulcers are not necessary. A gastroenterostomy will, without doubt, prevent a recurrence of the hæmorrhage and lead to a rapid healing of the ulcer from which the blood has come. (c) The indications for operation in chronic ulcer of the stomach vary widely. When the ulcer is near the pylorus a dilated stomach is the chief clinical sign; when it is in the body of the stomach an hour glass stomach may be caused; when nearer the cardiac end, gastralgia and dyspepsia may be the only indications. The time of the onset of pain after food is some guide to the position of an ulcer. (d) Hour glass stomach is almost always acquired; there is no proof that it is ever congenital. It may be caused by perigastric adhesions, ulcer with local perforation and anchoring to the anterior abdominal wall, chronic ulcer near the middle of the stomach, and malignant disease. The condition can be diagnosed with certainty if attention is paid to the following combination of symptoms: (1) If the stomach tube is passed, and the stomach washed out with a known quantity of fluid, the loss of a certain quantity will be observed when the return fluid is measured; (2) a sudden rush of foul, evil-smelling fluid after the stomach has been washed out until the fluid returns clear; (3) persistence of succussion splash after the stomach has been apparently entirely emptied (paradoxical dilatation); (4) bulging of the left side of the epigastrium before the right on dilating the stomach; (5) a bubbling, sizzling sound heard through the stethoscope after distention with carbon dioxide; (6) limitation of percussion resonance for a time to the cardiac segment, on dilatation with carbonic acid; (7) appearance of a sulcus between the two segments after distention; (8) when the stomach is filled with water, and examined by gastrodia-phany the transillumination is seen only in the cardiac pouch; and (9) limitation of the distention caused by the deglutible rubber bag of Turk and Hemmeter, to the cardiac pouch. The two conditions for which an hour glass stomach is likely to be mistaken are obstruction of the lower end of the

œsophagus, and pyloric stenosis. The following are the operations that may be practised: gastropasty, gastrogastrotomy or gastroanastomosis, gastroenterostomy from the cardiac or pyloric pouch or both, and partial gastrectomy.

4. **Idiopathic Œsophageal Dilatation.**—Lockwood reports the case of a woman aged twenty-seven years, suffering from idiopathic dilatation of the œsophagus secondary to spasmodic contraction of the cardiac orifice. He assumes that this contraction was due to a disturbance of the nervous mechanism. Four years previously the patient had a severe fall by which her right kidney was loosened and displaced, and it is pointed out how such a sudden and violent displacement of the right kidney would act almost directly on the right vagus, which goes to form the plexus gulæ from which the nerves of the œsophagus are supplied. The case was treated by stretching the cardiac orifice; an ordinary œsophageal tube with a distensible rubber bag on its end was used, which latter was inflated after the tube was passed. The immediate effects were excellent and the patient gained fourteen pounds in weight, and could swallow without difficulty.

5. **Gastroenterostomy in Irremovable Gastric Cancer.**—Pollard reports a case which shows that at least temporary relief can be obtained by gastroenterostomy in cases of carcinoma of the stomach in which there is no mechanical obstruction. And, just as in simple ulceration the irritation of food causes pain, vomiting, and interference with nutrition, which can be relieved by gastroenterostomy, so also in malignant ulceration similar relief, if only for a time, can be given by the same operation.

6. **Hypertrophic Pulmonary Osteoarthropathy.**—Curl reports a case of this disorder occurring in a man twenty-six years of age. There was no history of tuberculosis in his family. Although tubercle bacilli were never found in the sputum, the patient was considered to be suffering from tuberculosis of the lungs with consolidation and possible cavity formation. His hands were greatly enlarged and the fingers clubbed. So far no satisfactory explanation has been given of the changes occurring in the bones and joints in this complication of thoracic disease.

THE LANCET.

June 13, 1903.

1. A Few Jottings in Physiological Medicine.
By GEORGE OLIVER
2. Parasyphilis.
By GEORGE OGILVIE
3. A Statistical Inquiry into the Prognosis and Curability of Epilepsy: Based upon Results of Treatment.
By W. A. TURNER
4. Malaria as Seen in the Andaman Penal Settlement.
By E. E. WATERS
5. Chronic Suppuration in the Middle Ear; Thrombosis of the Lateral Sinus; General Septic Infection; Operation; Venous Transfusion; Recovery.
By W. M. WILLIS.
6. The Aniline Dyes as Therapeutic Agents.
By ANDREW BALFOUR

7. A Case of Congenital Deformity of the Skull Associated with Ocular Defects.
By H. W. DODD.
8. Chronic Volvulus of the Sigmoid Flexure; Intestinal Obstruction; Operation; Recovery.
By H. W. ALLINGHAM and E. C. BRIDGES.

1. **Blood Pressure.**—Oliver has studied the physiological variations in blood pressure in healthy individuals, and finds that the three leading causes are digestion, exercise, and temperature. The influence of digestion is paramount and constant; the wave-like rise and fall of the arterial pressure produced by each meal lasts from two and a half to four hours, the amplitude and length of the curve being, as a rule, proportionate to the size of the meal. Coincident with the dilatation of the splanchnic arterioles, there is a compensatory reduction of the systemic area of the circulation. These digestive waves are also present when the arterial tension is above normal. Exercise causes a fall in blood pressure, due to a widening of the peripheral channels and a consequent easing of the work of the heart. Heat produces much the same effect, but it merely relaxes muscular fibre, while exercise—even though tiring at the time—is followed by improved tone and vigor. In winter very high altitudes raise the blood pressure, but within certain limits (2,000 to 3,500 feet) altitude lowers the arterial pressure.

2. **Parasyphilis.**—Ogilvie states that the "inventor" of the doctrine of parasyphilis is Fournier, who defines a parasyphilitic affection as one syphilitic in origin but not in nature. Its two characteristic features are the following: (a) Parasyphilitic affections are to be met with independently of syphilis; they may be due to other causes as well, they are non-specific, while syphilitic lesions properly so-called, such as mucous patches and the gumma, are never produced outside the domain of syphilis. (b) The so-called specific drugs—mercury and potassium iodide—have a totally different influence upon parasyphilitic affections from that which they are known to exercise upon syphilitic affections.

Ogilvie denies that the idea is new, or that it contains anything of value for retrospective diagnosis or prospective treatment. Parasyphilis might be called a pathological lumber room; there may be a few valuable pieces in it, but the greater part is worthless. Any specific disease may, and often does, lead to sequelæ void of all specificity.

3. **Epilepsy.**—Turner has investigated 366 cases of epilepsy, chiefly derived from the dispensary records of the National Hospital for the Paralyzed and Epileptic. Only cases of genuine idiopathic epilepsy, which had been under constant observation and treatment for at least two years, were taken, all cases of symptomatic epilepsy being eliminated. A family history of epilepsy was found more frequently among the confirmed epileptics, but an hereditary history of epilepsy did not necessarily impair the prognosis in any given case. The most unsatisfactory cases were those in which the disease had commenced under ten years of age; they showed the smallest percentage of recoveries

and the largest of confirmed cases. An almost equal percentage was found where the disease had arisen at between fifteen and twenty years. The greatest percentage of confirmed cases was found amongst those in whom the disease had begun between twenty-five and thirty-five years, from which time onward there was a steady increase in the expectation of arrest and diminution in the number which become confirmed. The duration of the malady influenced the prognosis to the extent that arrest or improvement was much more likely during the first five, than during the second five, years. The greatest percentage of confirmed and the lowest of arrested cases occurred in the subjects of daily or weekly attacks, while the converse obtained where the fits were as infrequent as once or twice a year. The major attacks were the most tractable to treatment; then followed combined major and minor seizures; and lastly minor attacks alone. Marriage exerted but little influence; some were relieved, and others made worse, but in the majority of cases the disease remained unaffected. Pregnancy, at the best, caused only a temporary respite, while the puerperium and the period of lactation seemed to be especially favorable for the recurrence of fits. The common incidence of epileptic fits was an irregular periodicity. There were "increasing" and "decreasing" types, however, according as the fits increased or decreased in number, or in their nearness to each other in point of time. Long remissions were not unusual; they were of favorable prognostic value, but not synonymous with a cure of the disease. Some of the cases might be regarded as belonging to a curable type of the disease. These presented little or no mental impairment, notwithstanding that fits might have existed for a long period. In the cases in which arrest took place, cessation of the fits occurred within the first year of continuous treatment in over 50 per cent. From the collected statistics a period of remission for at least nine years has been fixed as the basis upon which a cure of epilepsy may be established. With this definition of a cure, 10.2 per cent. of epileptics may be regarded as curable.

4. Malarial Disease.—Waters describes his experiences with malaria in the Andamans penal settlement, and his conclusions drawn therefrom. During 1902 there were 14,000 cases of malaria, and 57 deaths. Infection from mosquitoes alone will not account for this large number of cases; most of them were probably relapses brought about by insufficient food and exposure to cold and damp. The effective means of diminishing malaria are four in number: (a) the destruction of all anopheles mosquitoes; (b) the prevention of the infection of, and by, anopheles mosquitoes, by means of nets or combustible pastilles; (c) the dosage of the whole population with quinine to an effective extent; and (d) the keeping of the population in such a good state of general health that relapses or recrudescences are unlikely.

Only one variety of anopheles is known in the Andamans—*Anopheles Rossii*. Many native children harbor malarial parasites without showing rise of temperature, but such children usually have enlarged spleens. As regards the diagnosis of

malaria by differential blood counts, the author's results do not agree with those of Rogers, in that the percentage of large uninuclears often fell below 15 per cent.

6. Chrysoidine.—The author finds that chrysoidine, diamido-azo-benzene hydrochloride, like methylene blue, possesses a peculiar affinity for the central nervous system, and also stains living tissues. When fish are put into a weak solution of the dye, they are speedily killed, and are found to be stained through and through. Chrysoidine is the most toxic of all the aniline dyes, and also possesses the power of precipitating the vibrios of cholera quantitatively from the solutions in which they are held in suspension. In view of the fact that methylene blue has been used by Ehrlich as a nerve sedative, because of its affinity for nerve tissues, the author suggests the therapeutic use of chrysoidine. It is possible that it might be also of service in cases of *Schistosoma hæmatobium* (bilharzia) invasion.

8. Chronic Volvulus.—Allingham and Bridges report the case of a man, aged fifty-four years, who for thirty years had suffered from attacks of constipation and severe pain in the lower abdomen, lasting five or six days, and recurring every month or six weeks. Finally he had a very severe attack, which did not pass off as usual, and a sausage-shaped tumor was felt in the left iliac region. The abdomen was opened and there was found a volvulus of the large intestine (sigmoid flexure) at least three feet long, to which was attached a long mesocolon, and many adhesions, evidently of years' standing. The adhesions were broken down and the volvulus reduced, the patient making an uninterrupted recovery. The attacks were due to distention of the volvulus with flatus, the last attack being so severe as to cause paralysis of the intestinal wall.

MEDICAL RECORD.

June 27, 1903.

1. On Septic Thrombosis of the Roots of the Portal Vein in Appendicitis and on Pyelophlebitis. Together with Some Remarks on "Peritoneal Sepsis."
By ARPAD G. GERSTER.
2. The Late Dr. T. Gaillard Thomas.
By HENRY D. NICOLL.
3. A New Blood Stain.
By GEORGE L. LAPORTE.
4. Feeding of Older Infants and Children.
By W. M. HARTSHORN.

1. On Septic Thrombosis.—According to Gerster the most common cause of septic pyelophlebitis is inflammations about the appendix. The condition is rare. In 1,189 cases of appendicitis that have come to operation at Mt. Sinai Hospital in the past ten years, the condition has only been met with nine times. The author considers the various ways in which the thrombi are formed and their varying physical peculiarities. Both these questions are of importance in the subsequent history of the detached material. The author has two theories, at variance with some now held, which he advances in his paper,

and attempts to demonstrate by 14 cases which he reports very fully. These theories are: (1) That many of the postoperative deaths due to heart failure, and usually attributed to *surgical shock*, are due in reality to septic thrombosis and to the introduction into the circulation of a sufficient quantity of "ichor" to produce a fatal toxæmia. In those cases in which the material introduced is insufficient, either in quantity or in virulence, to produce a sudden death, there will develop either septicæmia or pyæmia according to circumstances. (2) That many of the deaths attributed to *septic peritonitis* have been due to septic pyelophlebitis and its consequences. While the author does not deny that septic peritonitis does at times occur, yet, he is not at all convinced that it does. "Setting aside, therefore, both the unproved hypothesis of surgical shock and of peritoneal sepsis, . . . we have . . . irresistibly forced upon our attention, as causative factors of paramount importance (in the production of postoperative deaths), septic phlebitis and thrombosis of the roots of the portal vein and embolic processes dependent upon their disintegration."

3. A New Blood Stain.—Laporte's stain is a modification of Jenner's. It gives a differential stain for all the blood elements. In addition, it is a good stain for the malarial parasite, whose chromatin will stain a bright carmine color while its body will be blue. The stain and the method of using it: First solution.—An unfiltered $\frac{1}{2}$ per cent. solution of Jenner's powder in methylic alcohol. Second solution.—One part of Unna's polychrome methylene blue solution to 150 parts of distilled water. Method: "Take the cover glass specimen in a Cornet forceps, drop upon it five drops of the Jenner stain and allow it to act one minute, then, without removing the Jenner's stain, pour on ten drops of the polychrome methylene blue solution. Agitate the forceps so as to produce a thorough mixing of the two solutions on the cover-glass. Allow the combined stain to act five minutes longer. Then wash off with distilled water and allow some of this to rest on the cover glass about one minute longer with occasional agitation of the forceps. At the end of this time rapidly dip the specimen into a very dilute acetic acid solution (about one drop of 50 per cent. acetic acid solution to 10 ounces of water) until it is of a reddish or pinkish color. Rinse in water and dry in air. Do not employ heat or filter paper to dry specimen."

MEDICAL NEWS.

June 27, 1903

1. Poisoning by Corrosives. By ELI H. LONG.
2. Appendicostomy (Weir) for the Treatment of Chronic Ulcerous Colitis. By WILLY MEYER.
3. Notes upon a Case of Mycosis Vaginæ. By ALLAN J. SMITH and O. H. RADKEY.
4. Cast from a Case of Membranous Croup. By EVERETT J. BROWN.
5. Report of a Case of Rupture of the Uterus; Laparotomy; Recovery. By NUTTING FRASER.
6. Neuritis Following Ludwig's Angina; Report of Case. By CHARLES J. ALDRICH.
7. Report of a Case of Stammering, and Method of Treatment. By JAMES MOREAU BROWN.

1. Poisoning by Corrosives.—Long writes to emphasize the three following points: (1) That the action of corrosive poisons is dependent on their chemical action. (2) That their antidotes should be selected with the mode of action or the poison clearly in mind. (3) The importance of immediately diluting the poison with a large quantity of water, irrespective of the nature of the corrosive. Leaving arsenic and the halogens for separate consideration, he divides the corrosive poisons into three groups: (1) The mineral acids, (2) the caustic alkalies, and (3) the coagulants. The latter include carbolic acid, copper sulphate, mercuric chloride, silver nitrate and zinc chloride. The treatment of poisoning by any of the substances under consideration resolves itself into, first, diluting the poison as rapidly as possible; secondly, administering the proper antidote, and thirdly, attempting to remove the injurious substance by the production of emesis. The author enumerates the chief antidotes, but insists that the chief object one must seek to accomplish is the dilution of the poison as soon after it is swallowed as possible.

2. Appendicostomy.—Meyer reports one case operated upon by him by Weir's method, which he has named appendicostomy. The operation consists in suturing the tip of the appendix to the skin of the abdomen, and then, by opening the appendix at its end, obtaining entrance into the colon. The object of the operation is to obtain an opening through which the colon may be irrigated from its upper end. The case reported was that of a woman, fifty-three years of age, who was suffering from an extensive ulceration of the colon of an apparently specific character, in whom it was desired to obtain a means of thoroughly irrigating the colon. The operation is so simple that Meyer thinks that it would be suitable, as a preliminary step, in cases of obstruction of the bowel in old people where it is often desirable to empty the bowel above the seat of obstruction before proceeding to more severe measures. Attention is called to the fact that in old people the appendix will not infrequently be found obliterated, or of so small a calibre as to render it inadequate for the proposed purpose. These questions must be answered by experience.

7. The Treatment of Stammering.—Brown reports a case of stammering which was greatly improved by teaching the patient, a man, the art of deep breathing, at the same time training him to speak slowly and to strengthen the muscles of his tongue and lips by appropriate exercises. The author does not assert that all cases of stammering can be cured by the methods he reports, but he wishes to call attention to how much may be accomplished by extremely simple means.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

June 27, 1903

1. Some Clinical Observations on Chicken Pox. By JAY F. SCHAMBERG.
2. A Clinical Report of a Case of Blastomycosis of the Skin from Accidental Inoculation. By NEWTON EVANS.

3. Pseudohydronephrosis, Paraneuritic Cyst, or Hydro-nephrosis in a Boy of Three and One Half Years; Operation; Recovery. By S. W. KELEY.
4. The Treatment of Vascular Tumors by the Injection of Water at High Temperature. With Suggestions as to Its Employment in Tubercular Adenitis, Abscess, Fistulous Tracts, etc. By JOHN A. WYETH.
5. But One Profession of Medicine. By DUDLEY S. REYNOLDS.

1. Clinical Observations on Chicken Pox.—

Schanberg's paper is in the nature of a contrast study of the various peculiarities in the clinical symptoms and appearance of chicken pox and small-pox. While there is no one characteristic symptom, on which a diagnosis can be exclusively based, yet, if the diseases are studied in their entirety, few errors in diagnosis ought to occur. The author considers the differences between the two diseases under the eight following heads: (1) The vaccinal condition of the patient. (2) Initial symptoms. (3) Constitutional symptoms. (4) Distribution of the eruption. (5) Extent of the eruption. (6) Character of the lesions. (7) Manner of eruption. (8) Course of the eruption. There is an impression that chicken pox is extremely rare in adults. The author believes that it occurs in them much more frequently than has been generally supposed.

2. **A Case of Blastomycosis.**—The case reported by Evans is the only one so far recorded, he believes, in which the source of the infection could be definitely established. In the author's case the infection was introduced through a punctured wound of the hand, inflicted while performing an autopsy on a patient that had died of systemic blastomycosis.

4. Hot Water Injections in Vascular Tumors.

—Wyeth has determined experimentally that very hot water injected into a blood vessel produces coagulation of the blood, not only in the injected vessels, but also in its branches. He has since this experiment employed this principle with very great success, in the treatment of vascular tumors, and with temporary benefit in the treatment of sarcomatous tumors. Dr. Ackard has cured a number of fistulæ by this method, and the author thinks so well of it that he intends to employ it in a number of other conditions. "It is my intention to give this method a thorough trial in the treatment of tubercular adenitis, preferably before pyogenesis, and I shall not hesitate to employ it in gonorrhœal bubo, in ranula, in small cysts and abscesses, and lipomata." The method is perhaps not entirely free from danger. Up to the present time no serious complications have occurred. Sloughing of the tissues will not ordinarily take place if the tension from the injected water is not excessive and if care is observed not to make the injection too near the surface of the skin. The author gives in detail the technics of the operation and reports a number of cases. The operation consists in injecting suitable quantities of boiling water into the substance of the tissues it is desired to destroy.

AMERICAN MEDICINE.

June 27, 1903

1. The Relation of Neuralgic Headaches to Storms. By S. WEIR MITCHELL.
2. A Case of Endothelioma of the Mammary Gland. By J. CHALMERS DACOSTA.
3. Erythrophlœum: A Clinical Study. By REYNOLD WEBB WILCOX.
4. Chronic Cyanotic Polycythemia, with Notes upon Two Cases. By J. N. HALL.
5. A Further Study of the Influence of the Contents of the Large Intestine upon Strychnine. By WILLIAM SALANT.
6. A Rapid and Easy Method for the Sterilization of Catgut Ligature and Suture Material. By JOHN MILTON GARRATT.

1. **Neuralgic Headaches and Storms.**—Mitchell's remarks have to do with cases of hemicrania only. He has for some time attempted to collect accurate data on which to found some generalizations, but, up to now, he has met with very indifferent success. One of his patients did keep a fairly accurate record. A low barometric pressure does not, in itself, exert sufficient influence to be regarded as the chief factor. Atmospheric conditions as a whole seem to have a potent influence, for either good or bad, on people suffering from attacks of hemicrania. It is not necessary for a sufferer from hemicrania to be in the storm centre in order to be seized by one of his attacks. Storms as far distant as two or three hundred miles, may, at times, be able to exert their customary baneful influence.

3. **Erythrophlœum.**—Wilcox some years ago studied the physiological action of this drug, which was first introduced into France, from Africa, in 1876. He now reports a few cases in which he has made a clinical application of the facts previously established. In its action on the heart erythrophlœum resembles digitalis, and in its action on the vasomotor system, it resembles digitalis and ergot combined. The indications for the exhibition of the drug are a rapid, low tension pulse with venous congestion. The dose is from five to ten minims of the tincture (10 per cent.).

4. **Chronic Cyanotic Polycythæmia.**—Hall, tentatively, proposes this designation for certain cases recently reported of chronic cyanosis with immense increase in the number of red cells, and without cardiac disease. Two cases of this peculiar affection are reported. The blood counts in these two cases are given and are as follows: Case I.—Reds, 9,949,600; normal in character. Whites, 6,500; normal in variety and proportion. The hæmoglobin was estimated one at 170 and at another time at 200, with Von Fleischl's instrument. Case II.—Reds, 9,935,000, at the first count, and 8,400,000 at the second count, made on different dates. Whites numbered 22,000 the first time, and 6,500 the second, and the hæmoglobin was estimated at between 160 and 170. So far, there are not many cases of this disease on record, and generalizations cannot be made.

6. The Sterilization of Catgut.—Garratt asserts that catgut may be perfectly sterilized by the simple process of soaking it in the following germicidal solution:

- R Mercuric chloride.....1 gramme (15 grains);
Tartaric acid.....5.5 grammes (75 grains);
Columbian spirit..... of each 473 grammes (1 pint).
Ether.....

It is essential that Columbian spirit be used. Ethyl alcohol cannot take its place. Columbian spirit is a pure methyl (wood) alcohol practically free from water.

BOSTON MEDICAL AND SURGICAL JOURNAL.

June 25, 1903.

1. Surgical Tuberculosis. (*To be concluded.*)
By HERBERT L. BUNELL.
2. The Blood in the Typhoid of Children. A Clinical Study.
By FRANK SPOONER CHURCHILL.
3. The Cure of Cancer by the Use of the X Ray.
By H. W. VAN ALLEN.

2. The Blood in Typhoid.—Churchill draws the following conclusions: (1) The blood in the typhoid fever of childhood differs from that of adult typhoid only in degree. (2) The erythrocytes are reduced in number, especially during the first three weeks, after which they begin to increase rapidly, reaching normal in the fifth week. (3) The hæmoglobin suffers more proportionately than the erythrocytes. (4) The leucocytes are reduced throughout the first four weeks, the lowest average being reached during the second week, except in severe and tedious cases. (5) The leucopenia is of diagnostic value, especially in children, in whom most febrile affections produce a leucocytosis. More data are needed to determine the priority of appearance of a "positive" serum reaction or a leucopenia. (6) The relative proportion of the different varieties of leucocytes varies at different periods of the disease, the greatest variations being found in the multiforminuclears and uninuclear elements; the former diminish and the latter increase as the disease advances. The increase in the uninuclears is chiefly in the lymphocytes. Analysis of large numbers of cases grouped by age and week is desirable.

3. X Ray in Cancer.—Van Allen describes the surgical use of the x rays, and thinks that the coil is to be preferred to the static machine for the x ray treatment of cancers and all other affections amenable to this form of light treatment. The selection of the proper kind of tube is all important. Unless a tube with a degree of vacuum specially suited to the specific case to be treated is selected, more or less failure will result. He believes that the results so far obtained with the x ray in the treatment of carcinoma, compare very favorably with those obtained by surgical intervention, but expresses his belief that a combination of removal by cutting and reduction is the best method to pursue in cancer. The proportion of recurrences will be less by the former method than by the latter. He also cites cases of lupus erythematosus, removal of hair, and pustular eczema of the lip satisfactorily treated by the rays.

NEUROLOGISCHES CENTRALBLATT.

March 10, 1903.

1. Contraction of the Sphincter Iridis in Pupils Immobile to Light, in the Course of Accommodation and Convergence.
By M. ROTHMANN.
2. Anatomical Changes after Crushing the Roots of the Spinal Cord in Dogs.
By G. BIKELES.
3. Neurotonic Pupil Reactions.
By J. PILTZ.

1. Pupillary Disturbances.—After discussing the pupillary disturbances described by Strasburger and others, Rothmann reports the case of a girl twelve years and a half old, who in infancy had brief attacks of unconsciousness, and after her fifth year had an attack of migraine every four weeks. After one of these attacks it was noticed that the right pupil was dilated and absolutely immobile. The left pupil was normal. Percussion over the right temporal lobe was somewhat painful. The patient was given potassium iodide and gradually the attacks grew less and ceased. The right pupil gradually diminished in size, remained immobile to light, but showed slight narrowing to accommodation and convergence. In the course of time, however, it became more and more nearly normal, and merely showed a tendency to remain contracted after accommodation or convergence. Finally the pupil became about the same size as the left, remained immobile to light, but contracted to accommodation and remained contracted for some time. The case represents an isolated paralysis of the sphincter of the iris. It seems likely that there was a small local hæmorrhage which had involved the nucleus without totally destroying it. He does not believe that this reaction resembled that of Tonesen's disease, that is to say, it is not a myotonia.

2. Crushing of the Spinal Roots: Anatomical Results.—Bikeles has crushed the posterior and anterior roots of the spinal cord of dogs either with the pincers or ligatures. At the end of periods varying from seven weeks to two months and a half, the animals were killed and the roots examined, and there were invariably found regenerated fibres, the number corresponding to the length of the time that had elapsed after the operation. Similar delicate fibres were found in the posterior columns. The regeneration in the central nervous system, however, was not so active as in the peripheral nervous system, which may probably be explained by the fact that regeneration cannot occur until the products of degeneration have been removed, and that they may stimulate the growth of the neuroglia, which also interferes with the regenerating fibres. Examination of the posterior roots of dogs that had been operated upon from two weeks to two weeks and a half before death, showed that there were no centrifugal fibres in them. In the anterior roots, on the other hand, there was found peripherally from the point of crushing, a band of fibres that entered the anterior from the posterior roots. There appeared to be no reason for believing that regeneration takes place in dogs, as the degeneration was always on the same side as the injured roots.

3. Neurotonic Pupil Reactions.—Piltz, in the examination of 37 cases of progressive paralysis.

found 11 in whom both pupils did not react to light; 10 in whom one failed, and the other reacted poorly; 7 in which both reacted poorly; 4 in which only one reacted poorly, and 5 with normal reactions to light on both sides. Of 63 cases of tabes, in 37 both pupils failed to react to light; in 6, one pupil failed and the other reacted poorly; in 15, both pupils reacted poorly; in one, one pupil reacted poorly and the other normally; and in 2, the pupils were normal on both sides. Impairment of the reaction may manifest itself either in that the pupil does not contract as much as it should or in that it does not contract so rapidly as it should. Piltz insists upon his priority in describing the persistent after contraction of the pupil following accommodation in various forms of disease of the eye. He gives careful descriptions of 4 cases occurring in his own service, and also collects several similar cases from the literature. He believes that the best name for this reaction is "the neurotonic pupillary reaction," although he also suggests "tonic reaction of the pupils."

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

1. On Necrosis of the Gall Bladder.
By PROFESSOR DR. CZERNY.
2. The Surgical Treatment of Acute and Chronic Obstruction of the Common Bile Duct by Calculi and Tumors.
By HANS KEHR.
3. A Case of Synechia of the Pericardium Treated by Talma's Operation.
By PAUL CLEMENS.
4. Concerning the Bier Method of Producing Stasis.
By HABES.
5. Contribution to the Casuistic Literature Relating to Serviceable Amputation Stumps of the Leg.
By AMBERGER.
6. Demonstration of Four Cases Operated on for Ear Disease, Two being Cases of New Growth, One of Lime Concretion in the Auditory Canal, and One of Cholesteatoma with Burrowing of Pus as far as the Scapula and Clavicle.
By BEZOLD.
7. Concerning Acute Necrosis of the Mastoid Process and the Petrous Bone as a Sequel of Scarlet Fever.
By G. HEERMANN.
8. A Case in which the Internal Carotid Passed Through the Tympanic Cavity.
By E. HANSEN.
9. A Case of Fatal Injury from the Kick of a Horse.
By A. RIEDEL.
10. A Modification of the O'Dwyer Mouth Gag.
By A. RAHN.
11. Enrico Bottini.
By GIOVANNI GALLI.

1. Necrosis of the Gall Bladder.—Czerny says that inflammation of the gall bladder is not rare. In every severe attack of gall stone, colic inflammation plays an active part. In any portion of the biliary passage stones may create pressure phenomena, adhesions attaching the inflamed structures to the contiguous peritonæum. The stones may perforate in the direction of these adhesions with the formation of abscess. Perforation into the omentum is of common occurrence, the stone forming the centre of a tumor. Abscesses are often formed in the vicinity of the gall bladder and bile ducts, being usually walled in by omental adhesions. They are also formed in the subhepatic space, in the

omental bursa, or under the diaphragm. Perforation into the free peritoneal cavity is of rare occurrence. Less common than the purulent inflammations which are caused by gall stones with the aid of the pus-producing bacteria of the intestines, are the necrotic forms of inflammation. This is the more remarkable because the *Bacterium coli commune* which so commonly causes necrotic inflammation of the appendix with peritonitis, is also frequently found in the bile ducts. As to the origin of necrosis of the gall bladder, certain blood vessels play an important part, especially the cystic artery, a branch of the hepatic, which serves the function of a terminal artery, so that interference with its circulation endangers the nutrition of the gall bladder, new relations of the blood vessels being brought about as adhesions are formed with the contiguous omentum and intestines. Two cases are narrated: in one there was an attack of biliary colic, with suggestion of intestinal stenosis, also with necrosis of the mucous membrane of the gall bladder due to obstructing calculi. Partial resection of the gall bladder was followed by death from sepsis and heart failure.

In the second case there were repeated attacks of colic with apparent intestinal stenosis. Resection of the gall bladder in two operations was followed by recovery. Stones in the cystic duct in both cases caused necrosis of the gall bladder, complete in the first, partial in the second. No bacteria were found, but adhesions caused kinks and narrowing of the transverse colon and duodenum, conditions which often interfere with digestion and defecation. Early operations in such cases are to be desired. In 90 per cent. of the cases with the usual symptoms attributable to gall stones, calculi are to be found; in the remainder there are adhesions, ulcers, or malignant disease of the intestines, stomach, liver, pancreas, or gall bladder. If the gall bladder is entirely necrosed it should be removed, if only partially so the diseased portion may be removed. It not infrequently happens that stones are overlooked in the operation. New stones may form though all that existed at the time of operation may have been removed. The author's method of operation in typical cases is as follows: An incision, 10 to 15 centimetres long, is made near the inner third of the right rectus abdominis muscle, the nerve fibres being pushed aside when possible. The peritoneal cavity having been opened the gall bladder is freed from its adhesions, and its contents removed by aspiration. It is then incised, sterile gauze having first been packed around it. The stones are then pressed out with the fingers or removed with forceps. Any stones which may be lodged in the cystic duct are pressed into, and then removed from, the gall bladder. If this is not possible they must be removed through an incision in the long axis of the duct. The incision is closed, if the common bile duct is pervious, but if not, the incision is prolonged into the latter. Careful palpation is then made of the common bile duct, hepatic duct, and duodenum. An incision into the bile duct having been made and the stones removed, a small drainage tube is inserted and the wound closed around it with one or two rows of catgut sutures, as may be required to make it water tight. It is then irrigated with salt

solution, the ends of the ligatures nearest the tube being brought through the parietal peritonæum, to which it is then suspended. If there is pus in the gall bladder or around it, or if the intestines were injured the wound must be tamponed. If none of these complications are present the peritoneal wound is closed, except at the location of exit of the tube. Of course, when drainage is used the risk of subsequent fistula and hernia is increased.

2. Surgical Treatment of Biliary Obstruction.

—Hans Kehr makes allusion to his 800 operations for gall bladder disease, and hopes that his work is not unknown in America. He lays down the following propositions as a summary of his method of treatment. (1) The treatment of acute obstruction of the common bile duct by calculi belongs, with few exceptions, to the physician. (2) In chronic obstruction if the disease should not become latent and remain so, surgical intervention would be indicated. The operation should not, as a rule, be deferred longer than three months after the appearance of the symptoms of chronic obstruction. (3) Crushing operations for stone in the common duct are not to be recommended, cystenterostomy is of very limited usefulness, drainage of the hepatic duct is preferable to incision, and suturing of the common duct. If the stone is firmly lodged in the papilla of the duodenum the procedure of McBurney may be tried. Incision of the hepatic duct should rarely be practised. (4) Operative procedure is not especially dangerous if the disease is not complicated with diffuse cholangitis, liver abscess, carcinoma of the pancreas, etc., and its mortality should be about 3 per cent. If the operation is deferred until diffuse infection has resulted it can seldom give good results. (5) The treatment after the operation should receive most careful attention. (6) If there is chronic obstruction of the duct by carcinoma of the bile duct or the pancreas, only surgical treatment should be thought of. (a) This will usually be only palliative in character. (b) If the carcinoma is a small one and in the middle portion of the duct a radical operation is possible. (c) A benign tumor of the pancreas can be permanently relieved by operation.

3. Surgical Treatment of Cardiac Adhesions.

—Cases of adhesion of the heart to its pericardium are of rare occurrence. The attempt to treat the symptoms of this disease by surgical measures has been made but few times. One such case is here narrated by Clemens.

The patient was a woman, thirty-five years of age. She had had typhoid fever in her youth, but was in good health for several years afterward. In 1884 she had pleurisy and pericarditis for which her chest was aspirated three times. Recovering, she suffered two years later with cough and general œdema; also ascites for which she was aspirated with good result. Subsequently, she married, then suffered from pericarditis, with absence of the systolic apex beat, dilatation with imperfect compensation and ascites. A diagnosis of synechia of the pericardium was then made. Under suitable treatment the bad symptoms disappeared and she remained well three years. Then followed œdema,

dyspnoea, and ascites, which were only partially relieved by aspiration and the various drugs administered. Then came the question of possible relief by surgical measures. Petersen's case was recalled, in which two ribs were resected to relieve the pericardium, which was adherent to them. The procedures of successful treatment of ascites in cirrhosis of the liver by Talma, Morison, and Drummond were also recalled in which the anastomosis between the vena cava and the branches of the portal vein was extended. To accomplish this, the gall bladder or the omentum is united to the abdominal wall, the expected result being a stasis of the portal circulation. It was decided to perform this aspiration in the given case, and it was accordingly performed by Professor Kraske, on June 3, 1902. An incision was made below the navel, the serous fluid in the peritoneal cavity removed as thoroughly as possible, the omentum drawn forward, spread out under the skin on both sides of the wound, gauze having first been placed in the peritoneal cavity for drainage, and the edges of the skin united. The wound closed in six weeks without complications. A few days after the operation fluid again accumulated in the abdomen and œdema became extensive. On the 14th of June five litres and a half of fluid were removed. In August there was very little fluid, and the patient was able to sit up a portion of the day. In October she was able to walk about and had gained in weight, but the ascites and œdema returned. Internal treatment was then resumed, and the patient's condition improved, but the œdema and the ascites persisted. There was not sufficient fluid in the abdomen, however, to require aspiration. The operation was therefore only partially successful, but it was very evident that the conditions of the circulation had been improved.

4. Stasis Hyperæmia in Joint Diseases.

—Habs summarizes his opinions upon this subject as follows, the idea being that certain conditions may be improved by producing venous hyperæmia of the affected region: The plan of treatment consists in passing an elastic or a flannel bandage around the structures which are above the diseased region, the pressure being only sufficient to compress the veins and not the arteries. The muscles and nerves must be protected from undue pressure by cotton or bandage material, and the compressing bandage must cover the widest possible surface. The location of the bandaging must also be frequently changed. The conclusions are: (1) In tuberculosis the bandaging must be performed twice daily, the bandage remaining four or five hours, for eight days. Then the periods must diminish until finally the bandaging is done only once a day, for an hour at a time, this being continued until recovery has taken place. Active hyperæmia is not to be used in tuberculosis, and it is well to combine iodoform injections with the bandaging. The latter should be employed always if there are effusions or abscesses in the tuberculous joints. Large abscesses must be incised and fistulæ must be scraped. If the tuberculosis is extensive the major surgical operations, such as resection of the joints may be required. (2) In gonorrhœal articular rheumatism, stasis hyperæmia should be practised from the beginning, the

periods of stasis being of long duration, that is the bandage should be retained from eight to twelve hours daily. If the fever and pain disappear under this treatment one may employ active hyperæmia to obtain absorption of the contents of the joint, and daily treatment for an hour in a hot air chamber, in a hot sand bath, or an electric light bath. (3) In chronic cases of ankylosis of the joints, which has resulted from traumatism or inflammation, one may use massage and other mechanical treatment, twice daily an hour's treatment with stasis, and every third day a hot air bath of an hour's duration. (4) In chronic rheumatic joint inflammations active hyperæmia should be used and the joints should be placed once or twice daily for an hour in an electric light bath or a hot air chest. The stasis treatment should also be used in addition. (5) When there is defective callus formation, after fractures of the bones the stasis treatment should be used daily for two hours. Massage may be used in addition. In injuries from freezing, of the first and second degrees, in ulcers and vesicles resulting from cold, the vesicles and ulcers should be bandaged aseptically and stasis practised twice daily for one or two hours. This method of treatment can be carried out in the office, the bandaging being done at the beginning of office hours, and the patient left in the waiting room. At the end of the office hours the bandage may be removed. This treatment will be found valuable in the management of gonorrhœal rheumatism of the joints, in ankylosis of the joints following injuries, in frost-bites, and in local tuberculous inflammations of bones and joints. Stasis hyperæmia is convenient of application, painless, and without danger, and is heartily recommended by the author.

PRESSE MEDICALE-

June 6, 1903.

1. Is There a Bothryomycoma?

By F. J. BOSC and J. ABADIE.

2. Tables. Degeneration of the Centripetal Protoneurone.

By E. DE MASSARY.

1. Is there a Bothryomycoma?—In 1897 Poncet and Dor described as an affection peculiar to man small tumors, pedunculated, resembling frambœsia, on the fingers and the hand with the structure of a sudoriparous adenofibroma, and presenting a mulberry-like appearance, like the bothryomyces of the castration fungus of the horse. These authors thus determined a new variety of neoplasm, well marked in its clinical features, its pathological histology, and its pathogenesis, and gave it the name of bothryomycoma. Since that time a number of papers describing this neoplasm have been published, and to these the authors have added four, in the hope of determining whether they correspond to a well defined type of disease; to determine, in fact, whether there really is a bothryomycoma in man. The clinical type has long been recognized. It corresponds to the small papillomatous tumors of the fingers and of the hand which surgeons have always regarded as benign inflammatory neoplasms. But though all the authors agree upon the clinical type, histological

examination furnishes results so dissimilar that one is justified in asking whether they can correspond to one clinical type, or whether the differences in structure may not be attributed to errors of interpretation. Search for the pathogenic agent has given rise to many controversies, and when the growth has not been found entirely sterile it has been reduced to a development from the common *Staphylococcus aureus*. There is, therefore, doubt as to the existence of a true bothryomycoma. The narration of four cases follows.

2. Degeneration of the Centripetal Protoneurone.—The occurrence of many investigators seems to point to the fact that tabes and syphilis are identical. It would be a rational task to determine why a disease which recognizes syphilitic infection as its principal cause is differentiated from all other manifestations of the same nature by its evolution, resistance to treatment, and lesions. Why is it necessary to maintain the division between syphilis and what may be termed parasymphylis?

Nageotte's recent work defines tabes as a transverse radicular neuritis; that is, it is analogous to transverse syphilitic myelitis, of slow development. Certain writers have objected to the term on the ground that the particular lesion is not always present. Other writers have found that the lesion exists with other diseases, for example tuberculous meningitis, cerebral tumors, and general paralysis.

Nageotte further states that tabes is only a particular instance of the pathology of the root nerves, giving it its individuality; that it is the syphilitic nature of the inflammatory process which is the origin of the condition. To this statement it may be answered that though some of the symptoms may thus be explained, the entire tabetic syndrome cannot thus be accounted for.

P. Marie and G. Guillain have recently stated that tabes is only a syphilitic alteration of the lymphatic system, posterior to the spinal cord. Their arguments are drawn from the study of tabetic lesions and a consideration of the autonomy of the posterior lymphatic system.

The existence of the posterior lymphatic system is denied by Brissaud, as there can be no lymphangitis without an adenopathy, and no one asserts that he has seen the enlarged lymphatic gland of tabes.

It would seem to the writer that it is much more simple to designate the tabetic process as the degeneration of what Brissaud terms the centripetal protoneurone. When a harmful agent acts upon an intact protoneurone it produces only slight perturbations upon the cellular body, but causes considerable disturbance in the peripheral portions, that is, in the terminal and collateral branches of the axis cylinder at first, and then in the axis cylinder itself. In this way the spinal root protoneurons, etc., degenerate, with the appearance of the initial tabetic lesions. Then comes the degeneration of the contiguous neurones by the dystrophy, which extends from neurone to neurone, or by the action of secondary interstitial lesions. As a corollary to the foregoing, it may be said that the motor neurone has two different sources of excitation, one being brought to it from the cortex by the pyramidal

neurone, the other coming from the periphery by the centripetal protoneurone. The latter fails when the protoneurone is degenerated, and this loss, when not compensated, causes atrophy of the peripheral motor neurone, with its clinical consequences of paralysis of amyotrophy. It would seem that the successful treatment of syphilis by mercury and potassium iodide should give similar results for tabes, but thus far this has not been the case.

LYON MEDICAL.

June 7, 1903.

1. Bronchopneumonia of One Lung and Abscess of the Other, Caused by a Foreign Body in the Respiratory Tree. By P. COURMONT and ANDRÉ.
2. Mastoiditis with Thrombophlebitis of the Lateral Sinus and the Internal Jugular; Opening of Sinus and Ligature of Jugular; Recovery. By DUROUX.

1. Bronchopneumonia and Abscess from Foreign Body.—The case reported is one of a man aged twenty-six years, of excellent general health, who accidentally swallowed a large pin that had fastened his neckcloth, on November 23rd. He coughed violently at the time, but afterwards had no symptoms but a slight pricking at the level of the hyoid bone. On November 28th, another attack of coughing displaced the pin, which pointed near the skin at the level of the larynx at the border of the sternocleidomastoid. At the hospital, an incision was made, but the pin slipped back into the respiratory tree, without at the time causing any further cough. There was no further sensation from the pin, but infectious symptoms began to develop, chills, night sweats, dyspnoea, stitch in the left base. The temperature oscillated around 40° C. (104° F.), and pain, both muscular and articular, was complained of in the upper limbs. Respiration was 60, and expectoration purulent and streaked with blood. Physical signs were dulness at left base, subcrepitant râles over left lung. Alcohol and quinine gave no result, but antipyrine relieved the pain. The râles gradually became pseudophthisical, the cough more frequent with occasional sharp pain behind the sternum, and prostration progressed so quickly that not only was further intervention impossible, but an x ray examination was out of the question. The patient died on December 25th. The autopsy disclosed the pin lodged in the left bronchus with the point in the trachea. The head was just where the bronchus divides and this locality was full of pus. Where the point of the pin had touched the opposite side of the trachea, an abscess had developed, which had invaded the right lung; this lung was much congested, but not hepatized. The pin was 8 centimetres in length, with an unusually large head. A blood culture from the arm on the fifteenth day of illness gave a quantity of *Staphylococcus pyogenes albus*, which was neutral to guinea pigs and rabbits, but the sputum was polymicrobial.

2. Mastoiditis with Thrombophlebitis.—This patient entered the hospital on January 16th. He was twenty-six years of age, and presented the symptoms of a violent "grippe," vomiting, high fever, chills, vertigo, and headache. In the right

parietooccipital region, no redness or œdema, but some pain on pressure; hearing almost abolished on that side and a history of a purulent discharge of the right ear. Health otherwise good till the present attack. Skin now dry, temperature 40° C. (104° F.), pulse 110, urates and albumin in urine. Diagnosis was also reinforced by oscillation of temperature and the pyohæmic facies. On January 19th, two ligatures, one centimetre and a half apart, were placed on the internal jugular, and the latter on opening revealed a large phlebotic thrombus. In another operation, the sinus was opened, but without result. The subsequent dressings and other treatment in this case were most tedious, but recovery, which under the circumstances is very rare, took place. The operators often lost hope from the condition of the wounds, the temperature, etc., but after the twelfth day, on which there were high fever and terrific headache, recovery was quick and uneventful.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

May 3, 1903.

1. The Contest and the Immunization of the Organism against Tuberculosis. (Report to the International Medical Congress at Madrid, April 24, 1903). By E. MARAGLIANO.
2. Aristide Stefani. His Professional Jubilee.
3. Splenopexy for Movable Malarial Hypertrophic Spleen. By CARLO MARIANI.
4. Contribution to the Serumtherapy of Streptococcus Infections. By ARTURO MONTINI.
5. Clinical and Pathological Notes on an Epidemic of Measles. By MICELI CAPURBANO.

3. Splenopexy.—Mariani reports a case of movable spleen due to malarial hypertrophy, which he operated on by splenopexy with excellent results two years ago. The patient was a young man, aged twenty years, who had been affected with repeated attacks of malaria, which was endemic in his country. He complained of severe pains and of a sense of dragging in the region of the spleen, obstinate constipation, and gastric symptoms. These signs became gradually more pronounced and were aggravated by physical exertion. The spleen was found very much enlarged and so movable that when the patient lay on his right side it was found on that side. In the standing position its upper limit reached to the level of three fingers below the umbilicus. The author used Parona's method of splenopexy, *i. e.*, he sewed the splenic capsule by means of catgut to the peritoneal and muscular layers about the wound over the splenic area. An ellipse of spleen was left exposed and packed with gauze, adhering to the wound by granulations in the process of healing. An empyema followed the operation and necessitated the resection of some ribs, but outside of this, the patient made a good recovery, and the spleen was firmly and permanently fixed to the abdominal wall. In speaking of the indications for this operation, Mariani says that it should be performed in all cases in which the spleen is so movable and hypertrophied as to give distressing symptoms, if the organ is found healthy enough to be left in the body. If not, it should be resected. At all events, every ectopic

spleen should be treated surgically. Whenever possible, however, the spleen should be preserved and not resected, but the latter operation must be performed when it is too extensively diseased to be of any use.

4. **Antistreptococcus Serum.**—Montini reports three cases of infection successfully treated with antistreptococcus serum. The first of these was the case of a man who had become infected with phlegmonous suppuration from a cadaver; the other two cases were instances of puerperal sepsis. In all, the infection was severe, and the causes of the infection were not only streptococci but other germs. It is not necessary that the streptococcus alone be the ætiological factor of septic cases treated with the antistreptococcus serum—this may be a theoretical requirement, but in practice it has been found that cases of mixed infection can be successfully treated with this serum. Examples of such mixed infection in which the antistreptococcus serum proved of great value are the cases of Taval, to which Maragliano has called attention with approval. In the first case here reported the infection was very severe, as unfortunately often happens with cadaveric infections. The local surgical treatment proved of no avail, and the effect of the serum was clearly marked. The injection of 40 cubic centimetres of the serum produced a reduction of the temperature to the normal and the rapid improvement of all symptoms. In the second case the patient was in a grave state of septicaemia, and yet, after sixteen hours, a dose of 30 cubic centimetres of the serum reduced the fever to normal and effected an improvement in the general condition of the patient. Within four days the patient was out of danger. In the third case (the second in the order of the report) the patient died fifteen days after Montini had seen her last. He had observed her for several days during which she had received only 40 cubic centimetres of the serum with a considerable improvement in her condition. After she had passed from Montini's observation, however, she had grown worse. He believes that in this case the doses of serum were insufficient. It is impossible to regulate, mathematically, the amount to be given, but a sufficient amount must be used to assist the organism in combating the infection. Montini did not observe any untoward effects from the use of this serum in doses as high as 40 cubic centimetres within ten hours.

5. **"Measles without Measles."**—Capurbano, a physician in a rural commune in Italy, reports his observations in a recent epidemic of measles which he had studied most carefully from its introduction into the village through the exposure of one child. The noteworthy feature of this epidemic was the occurrence of three cases of measles without any eruption, *i. e.*, morbilli sine morbillis. In these, the other symptoms of measles were present and the course corresponded to that of the typical disease, but there was no eruption. All three children recovered, although in two of the three cases the infection seemed to be severe. Capurbano did not find in these cases the diagnostic symptom described by Roger, namely, the increase in size without change in color, of the papillæ of the tongue.

REVISTA DE ESPECIALIDADES MEDICAS.

June 5, 1903.

1. Survival of a Dog after Double and Simultaneous Section of the Two Vagosympathetic Nerves of the Neck. By J. GOMEZ OCAÑA.
2. Artificial Obliteration of the Eustachian Tube. By E. V. SEGURA.
3. Blennorrhagic Neuropathies. By D. J. B. CABALLERO.

1. Section of Vagosympathetic Nerves.—

Ocaña describes the condition of the dog operated on by him; this being the first recorded instance of survival after simultaneous section of the pneumogastric nerves. After operation, the characteristic symptoms of double vagotomy, *i. e.*, aphonia, slow, deep, and noisy respiration alternating with attacks of suffocation, rapid pulse and vomiting. To these symptoms were added those attributable to the sympathetic by reason of its junction with the vagus in the neck of the dog to form a common trunk. Injection of the conjunctiva, sinking of the globe of the eye and contraction of the pupil furnished evidences of the injury, to the sympathetic. Fever was noted only on the sixth and seventh days after the operation. On the fourteenth day, the cardiac and respiratory rhythm became regular and the dog regained its normal condition, save for the aphonia and occasional vomiting, which persisted. At the time of writing, some four months after the operation, the animal was in healthy condition and gave evidence of long continued life, though aphonia and vomiting were still present. That regeneration of the nerve took place is doubted by the author, owing to the persistence of aphonia. Ocaña emphasizes the fact that life is possible without the influence of the pneumogastric nerves, and that deglutition was in no wise affected by the operation; œsophageal paralysis being apparently obviated through the supplementary nerve paths to be found in the numerous anastomoses of the recurrent nerve.

2. Obliteration of the Eustachian Tube.—

Segura advocates artificial obliteration of the Eustachian tube when the tympanic membrane is almost or totally destroyed, and there is no hope of its regeneration, upon the ground that the physiological function of the tube, that is, the admission of air to the tympanic cavity for the maintenance of equilibrium with the atmospheric pressure, is at an end; and the nasopharynx being the source of infection to the middle ear, obliteration of the tube serves to shut off such infections. Recurrences of aural suppuration, coincident with coryza, nasopharyngeal catarrh or other nasopharyngeal affections, in patients whose tympanic membranes have been destroyed, serve, in the author's opinion, as an indication for obliteration of the Eustachian tube; mucosal or osseous affections of the middle ear should, however, first be excluded as a source of suppuration. For the accomplishment of his purpose, the author has recourse to cicatricial closure of the mesopharyngeal end of the tube through cauterization.

3. **Blennorrhagic Neuropathies.**—Caballero reports a number of neuropathic conditions which

were directly attributable to blennorrhagia; among which were four cases of melancholia, two of which were cured after discovery and appropriate treatment of the gonorrhœal condition, as was also a case of hysteria. He also cites the case of a young student who contracted gonorrhœa and developed numerous complications, in the course of which acute mania appeared. The latter, notwithstanding a cure of the blennorrhagia, went on to chronic insanity. The author draws the following conclusions from his experiences: (a) True blennorrhagic neuropathies exist. (b) The two maladies may occur simultaneously or successively. (c) In both instances, the neuropathy may be infectious, that is, produced directly, by the specific cause of blennorrhœa, or it may be consecutive to the latter without depending directly upon the organism. (d) It is important to establish this distinction as an element to be considered in the treatment.

ROUSSKY VRATCH.

May 3, 1903.

1. Ligation of the Ulnar Artery in its Lower Third.
By K. I. SOUSLOFF.
2. The Pathological Anatomy of Neuropathic Spondylitis.
By G. J. TROSHINE.
3. A New Type of Granular Degeneration of the Striated Muscle Fibres (A Preliminary Communication).
By G. P. ZELIONY.
4. On the Preparation of Concentrated Antidiphtheritic Serum.
By S. V. KORSHUN, V. I. NEDRIGAILOFF, G. J. OSTRIANINE.
5. On the Microphysiology of the Lacrymal Gland.
By A. I. VORONOFF.
6. Photospeculum, an Appliance for Phototherapy in Gynæcology.
By I. MAKAVEYEFF.
7. A Case of Acromegaly.
By P. I. BRASLAVSKY.
8. The Treatment of So-called Calculous Anuria. The Pathology of Reflex Anuria.
By M. L. KREBS.

1. **Ligation of the Ulnar Artery.**—Sousloff calls attention to the frequent occurrence of an accessory abnormal muscle in the lower third of the forearm, which covers the ulnar artery that other wise would be quite superficial and easily accessible for ligation at this point. He met with this anomaly in dissecting the forearm of an old man. The accessory muscle occupied the lower half of the forearm in the interval between the flexor carpi ulnaris and the flexor sublimis digitorum. The muscle arose in the aponeurosis over the internal condyle of the elbow, passed between the muscles named and was inserted behind and to the inner side of the pisiform bone into the base of the first phalanx of the little finger. A number of authors have described this accessory muscle, but none of the text-books on surgery and on anatomy mentions the point about its interference with ligation of the artery, except Quinn. All surgeons direct that the outer border of the tendon of the flexor carpi ulnaris should be followed when looking for the ulnar artery. This would lead, in the present instance to the uncovering of the accessory tendon, which lies over the artery. It is well, therefore, to remember the possibility of this occurrence, and to seek the ulnar artery along this tendon, with the least possible damage to the tissues.

3. **Degeneration of Muscles.**—Zeliony found a peculiar granular degeneration in the striped muscular fibres, which has not hitherto been described so far as he knows. This change consisted in the appearance of small round granules which stained with hæmatoxylin or with safranin. These granules appeared between the primary muscular fibres, and when they were numerous they constituted threads which ran parallel to and alongside of the muscular fibres. In the majority of cases, however, the granules lay in the fibres which had lost their transverse striation, and it was impossible to tell then whether they lay within the primary fibrillæ or between them. In general shape and distribution they resembled the granules of fatty infiltration. This change was produced by the injection of snake poison or of carbolic acid into the muscle.

4. **Active Antidiphtheritic Serum.**—Kershun, Nedrigailoff, and Ostrianine, communicated to the Eighth Pirogoff Congress, Moscow, the results of a series of experiments which enabled them to produce a very concentrated antidiphtheritic serum. They give a series of interesting data as to the best mode of accomplishing the desired concentration of the serum. They found that the virulence of the initial toxine which was used to immunize horses did not matter, and that with the proper doses, a weak toxine could produce as good results as a strong one. The horses must be carefully selected, and the best age is from four to nine years. Younger or older animals did not furnish a serum rich in antitoxine. The sensitiveness of the horses to the toxine does not seem to influence the activity of the antitoxine obtained. The toxine is usually injected subcutaneously, but some authors regard the introduction of toxine into the veins as less effective. The amount to be introduced into the animal is a matter of dispute. Many authors assert that it is advisable to inject as large a quantity as possible to start with, and to increase it from time to time. The present authors have found on experiment, that it is far better to introduce frequent doses of small size than larger, maximum doses at infrequent intervals. In the first cases the antitoxine is more concentrated. The reaction with this conservative method of inducing immunity in animals is slight, and the results are far better. Cases in which larger doses were used showed a violent temperature reaction and the authors were unable to obtain in these horses more than one hundred units of antitoxine per cubic centimetre. This convinced them of the inefficacy of the heroic method of immunization hitherto pursued by some bacteriologists. With small, frequently repeated doses they obtained a concentration of 500 units to the cubic centimetre. Finally by still reducing the doses and increasing the frequency, though not beyond a daily injection, the authors obtained one thousands units per cubic centimetre. The reactions were slight and the local infiltrations of no consequence. They conclude, therefore, that the conservative method of immunization gives better results than the old radical method, and that the richness of the antitoxine in antibodies that does depend upon the violence of the reactions that take

place in the animal during the process of immunization.

5. Lacrymal Glands.—Voronoff has studied the structure and functions of the lacrymal glands in man and in a series of lower animals, a subject which has been comparatively neglected during the past twenty-five years. He did not find any marked differences in the structure of the human glands and of those of lower animals. The lacrymal gland belongs to the acinous type. The acini are round or oval in shape, and are connected by means of strands of fibrous tissue forming a capsule and containing a number of vessels. They are united into lobes and are lined by cylindrical or cuboid epithelium on a thin membrana propria. The nuclei of this epithelium are round or oval and centrally disposed. When the gland is at rest the acini have small lumina, but when it is active the acini dilate, the epithelium flattens, the lumen contains secretion, and the protoplasm of the acinal epithelium becomes cloudy and granular, instead of being clear as in the state of rest. Some of the acini in the same gland may be found at rest, others at work, for the whole gland does not work simultaneously. The ducts are lined with single, or in the case of the larger ones, double, epithelium of larger size.

6. Phototherapy in Gynæcology.—Makaveyeff has invented an appliance which is a combination of a vaginal tubular speculum with an electric incandescent lamp that can be used for transmitting the effect of light upon the internal genitals in women. Phototherapy, according to the author, has given very good results, especially in the chronic diseases of the uterus and appendages accompanied by neuralgic pains. Light may be applied to the internal female genitals through the abdomen by means of the ordinary incandescent lamp with a suitable reflector, as electric light does not affect the surface of the body alone, but penetrates into the deeper tissues. The author has devised two types of apparatus in which small lamps can be introduced directly into the vagina. They are of such size that they do not give off too much heat. The first apparatus consists of the ordinary glass tubular speculum, into the distal end of which is inserted a stopper fitting into its lumen, which bears the stem of a small lamp through which the two wires supplying the current are passed. The second appliance consists of two glass tubes shaped like test tubes, one within the other and provided with a metallic collar uniting their open ends. through the centre of this collar pass the electrodes leading to the lamp within the inner tube. The space between the glass tubes is connected with inflow and outflow tubes, so that a continuous current of water may be maintained around the lamp. The applications of light last from five to twenty minutes, and the flow of water is maintained at body temperature. The first apparatus has a lamp of ten volts; the second, one of fifty volts; and a water rheostat enables the operator to use a street current of from 100 to 110 volts.

THE PRACTITIONER.

May, 1903.

1. On Cancer of the Lips. By SIR THORNLEY STOKER.
2. Excision of the Tongue for Cancer. By WALTER WHITEHEAD.
3. On Cases in which I have Experienced Great Difficulty in the Diagnosis of Cancer of the Tongue. By HENRY T. BUTLIN.
4. Fifth Cases of Carcinoma of the Tongue. By W. H. A. JACOBSON.
5. A Series of Cases of Cancer of the Tongue. By STANLEY BOYD and W. H. UNWIN.

1. Cancer of the Lip.—Stoker says that the lip is one of the most frequent sites of cancer, and operation in this locality offers comparatively the most favorable results. He has found no evidence that cancer of the lip is due to an inherited disposition. Most of the cases under his observation can be attributed to smoking, especially pipe smoking.

When the disease occurs at or after middle age it is often preceded or accompanied by a general papillomatous condition of the skin, especially on the face, neck, and front of the chest. It may also be caused by the irritation of broken, decayed, or irregular teeth. Syphilis is seldom a predisposing cause. Most cases occur in persons over fifty years of age, and almost always in males. It is commonest among the lower classes, and is almost invariably on the lower lip. The extension of the disease is to the lymphatic glands below the jaw and down the neck; then the submaxillary glands; finally the lower jaw and the floor of the mouth. The tongue and the remote organs are seldom involved. Death results from exhaustion, septic disease of the lungs, or hæmorrhage. The diagnosis is not usually difficult, and it is to be differentiated from sarcoma and syphilis. The treatment should be removal with the knife and at the earliest possible moment; the earlier and more radical the operation the less the probability of recurrence.

2, 3, 4, and 5. Cancer of the Tongue.—Whitehead (2) says that operations upon the tongue for cancer should not be compared with those in which other tissues are involved. Operations for this condition cannot be performed too early, and the associated glandular area of the tongue should be explored, whether there is evidence of glandular enlargement or not. Division of the jaw is unjustifiable in excising the tongue or even in removing the glands beneath it. The same is true of removal of the tongue by the *écraseur*. Opinion is divided as to the necessity of a preliminary tracheotomy or laryngotomy; Whitehead does not approve of such methods. He disapproves of preliminary ligation of the lingual arteries, and secures the vessels in the mouth rather than in the neck.

The position of the patient's head is important; it must be so placed that an assistant can easily elevate it, to admit light into the mouth, or depress it, to allow the blood to escape. An ordinary rocking chair is more suitable for the operation than an operating table. The patient is securely fixed in the chair with a large towel properly adjusted, and

the chair is raised or lowered as required. A gag is placed on the side of the mouth opposite to the proposed operation, or a gag on each side, if the entire tongue is to be removed. The tip of the tongue is seized and drawn forward, and a strong ligature passed through it for convenience in traction. The tongue is drawn forward and upward and the frænum excised. The lower blade of the scissors is then slipped under the mucous membrane to the anterior pillar of the fauces. Closing the scissors divides the attachment of the mucous membrane to the jaw. This is done on both sides if the entire tongue is to be removed. The anterior pillar of the fauces is then divided on one or both sides. The tongue can then be pulled out of the mouth, the arteries and nerves exposed with the finger or a dissector, the arteries clamped, cut, and the proximal end twisted. A ligature may then be passed through the stump, the tongue having been cut away, and the stump drawn forward and inspected to determine that the arteries are secure. A varnish or collodion may be applied to the stump to lessen the possibility of infection or hæmorrhage. The neighboring glands and fatty tissue should also be removed as thoroughly as possible. As causes of the disease the author mentions syphilis, smoking, and the irritation of teeth.

Butlin (3) says that hard ulcers due to the irritation of bad teeth often resemble cancer, but they frequently heal quickly when the cause of the irritation is removed. A solution of chromic or boric acid applied several times daily will frequently result in healing within two or three weeks. Should the ulcer fail to heal or the disease extend, the tongue should be promptly removed. Syphilitic sores of the tongue may mislead one in making a diagnosis. Potassium iodide in large doses should be given in such uncertain cases, and if the sore does not heal it should be excised. If this is not followed by prompt recovery the question of removal of the tongue should be at once considered. Tuberculous ulcers of the tongue are sometimes mistaken for cancer. The ulcers should be excised and an examination of the specimens by the microscope will usually determine whether the disease is tuberculous or cancerous. If the latter, the rational course will consist in the removal of the tongue.

Jacobson (4) considers the results thus far obtained by the operative treatment far from satisfactory. Neglect in the early stages of the disease is partly accountable for this, the leucoplakia, the ulcers, and fissures being often allowed to continue for long periods before any radical treatment is undertaken. It is during this precancerous condition that operation should be performed, in order to obtain the most satisfactory results. It is proper in some cases to use caustics and other local applications for a time, but if healing does not occur promptly and permanently the radical operation should not be delayed.

In regard to the diagnosis, it may be difficult to decide whether an ulcer is cancerous or precancerous, as also in case of a leucoma which becomes warty or lumpy. In cases of ulcers which are clearly syphilitic the mixed treatment is, of course, indicated. Such ulcers heal repeatedly and break down again and again, which is not true of cancerous

ulcers. If an ulcer remains unhealed three or four weeks, and creeps down to the floor of the mouth, the patient being older than forty years of age, an operation should be performed. The ordinary diagnostic signs, indolence as to pain, shooting pain, bleeding, and loss of suppleness of the tongue are not regarded by the author as determining signs, notwithstanding high authority in their favor. A microscopical examination of the diseased tissue, while desirable, may not be convincing, as it may not prove enough in a given case. The fear which many have that the power of speech will be lost if the tongue is removed has often proved groundless, even when no trace of the organ remains. The enunciation of some of the consonants may be indistinct, but even these may not be unintelligible. If only half of the tongue has been removed speech may be almost as good as before the operation. If the organ is removed early in the history of the disease, healing will take place very rapidly, while those which are removed only after prolonged illness with its accompanying sepsis and general constitutional disturbance, may be followed by a long and very trying period of convalescence.

Boyd and Unwin's (5) series comprised 33 cases, 3 women, and 30 men, the youngest forty-two years, the oldest seventy-five years; 19 of them were between fifty and 59 years of age. In 6 the disease was on the anterior part of the tongue; in 12, in front of the anterior pillar of the fauces; in 6, between the pillar and the anterior third; in 1, it extended into the posterior third; in 1, it occupied the posterior third; in 7, it occupied the frænum.

In 1 there was no recurrence after eleven years; in 1, it recurred in eight years and a quarter, was again operated on, and there was no recurrence after two years and a quarter; 2 died in six, and four years and a half respectively; 1 had no recurrence after two years and a quarter, and 1 was free from recurrence after eleven months. In 1 there was recurrence in a gland in four years and three quarters; in 1, in the frænum after three years and a quarter; 1 recurred twice in two years, in glands, and the patient died without subsequent recurrence in four years and a quarter; in 16 others recurrence took place within a year, and 8 died from the operation. Some recurrences may be fresh growths; true secondary recurrences cannot be prevented. The high mortality can only be prevented by the exclusion from operation of those cases in which the disease has made great progress.

MISCELLANEOUS.

Pathology of Chronic Peripheral Facial Paralysis.—Dr. M. Bernhardt (*Berliner klinische Wochenschrift*, May 11th) reports several cases of this nature characterized by a return of the electrical reaction in the paralyzed muscles while they cannot be voluntarily made to contract. This is the reverse of the usual condition. In the cases narrated, only the superior branches of the nerve were thus affected. The author assumes that the lesions were probably not severe enough to evoke great degenerative changes, while they were of a serious enough character to interfere with the voluntary contraction of the muscles supplied by the nerve.

Anuria Calculosa and its Treatment with the Permanent Ureteral Catheter.—T. Cimino (*Il Policlinico*, April 22nd) reports the case of a woman subject to the frequent passage of calculi, in whom the amount of urine voided gradually decreased till secretion ceased entirely. A diagnosis of occlusion of the left ureter by a calculus of unusual size, and reflex inhibition of secretion in the right kidney was made; and a catheter was introduced into the left ureter up to the point at which it met the resistance of the imprisoned calculus. After the catheter had remained *in situ* for eighteen hours, 100 cubic centimetres of urine were passed; and after an interval of eight hours, an additional 500 cubic centimetres were voided. The catheter was then withdrawn and the bladder washed out. The following night, spontaneous passage of the calculus occurred during micturition. The author attributes the reestablishment of the urinary flow, and subsequent escape of the calculus to a reflex dilatation of the ureter brought about through the presence of the catheter; and believes that the use of the permanent catheter with the view of provoking reflex dilatation of the ureter in anuria calculosa, is a valuable therapeutic measure.

Beri-Beri.—F. Destéfano (*Semana Médica*, Year X, No. 18) discusses this condition from the standpoint of his personal observation of cases in the Isolation Hospital of Buenos Aires, and presents a detailed report of four cases. He rejects the idea of the infectious character of the disease, as in the examination of his patients' blood neither germ nor parasite was found. On the other hand, a change of diet, such as from salt meat and fish to fresh meat and bread, or from rice to beans, brought about a cure without therapeutic treatment. In no infectious condition will a change of diet alone effect a cure; therefore the author believes that beri-beri is due to an intoxication, of alimentary origin. He describes three forms of the disease; the moist, the dry, and the mixed. The invasive stage is long, and may be characterized by chills and fever, vomiting, headache, anorexia, and thirst. The most striking feature of the moist form, he states, is the extensive œdema, which, commencing in the lower extremities, extends to the whole body, sometimes within twenty-four hours. This is frequently accompanied by exudates in the pleural, pericardial and peritoneal cavities. The skin is pale as are the mucous membranes, and erythematous or hæmorrhagic eruptions may appear. Pains in the limbs and difficulty in movement add to the patient's discomfort. A characteristic symptom is seen in the continuous pain at the level of the epigastrium, with a sense of constriction about the lower part of the thorax. This condition, known as the beri-beri girdle, renders respiration more superficial and rapid, and to this is frequently attributable the dyspnœa seen. Such patients are easily fatigued, and have a characteristic gait. The thigh is slowly raised and flexed upon the abdomen, the leg follows and with it the foot is raised from the ground. When the foot is lowered, the great toe and internal border first touch the ground; the sole being next lowered. Paralysis, not so marked in the moist form, commences in the toes

and ascends to the leg, thigh, and remainder of the body. The patella reflex is abolished and the other reflexes are diminished. Decreased sensibility, anæsthesia, hyperæsthesia or paræsthesiæ are sometimes present. Aside from the dyspnœa due to the beri-beri girdle, this symptom may occur from changes in the pneumogastric, œdema of the glottis, pleural effusion, or uræmia. Cardiac palpitation is present and the pulse, at the height of the disease, is from 90 to 120, small, and easily depressed. During the absorption of a pericardial effusion the pulse falls and may be as low as 40. The temperature is normal in the majority of cases. Notwithstanding the anæmic appearance, the red cells may be above the normal in number; though a diminution of the red corpuscles is more common. The urine is much decreased, as is urea also. Chlorides and phosphates are increased. Hæmetemesis may occur, and constipation is the rule. The liver and spleen are of normal size. The general nutrition is much lowered. In the dry or paralytic form of the disease, the prodromal symptoms are the same as in the moist, but anæsthesia is the first symptom, and begins in the fingers and toes, gradually extending to the entire body. The patient complains of intense pains in the joints and muscles, but the beri-beri girdle is less pronounced than in the moist form. Paralysis, commencing in the extensor muscles of the leg and forearm extends to the muscles of the abdomen, thorax, thigh, larynx, and pharynx. The anal and vesical sphincters are spared. Involvement of the phrenic and pneumogastric nerves may give rise to respiratory and cardiac disturbances. Pain accompanies the paralysis, and cutaneous eruptions may be present in this as in the moist form. Mortality is greater in this form than in the moist, though a chronic condition is the rule. The mixed form presents the features of both the dry and the moist, commencing as the moist and taking on the paralytic form later.

Treatment of Chronic Catarrh of the Large Intestine with Irrigations.—Dr. L. von Aldor (*Berliner klinische Wochenschrift*, May 11th) has employed in catarrh of the large intestine irrigations with Carlsbad Sprudel salts, administered through a tube and warmed to from 80° to 85° F. This is preceded by an ordinary cleansing enema. From two to three quarts are then administered. After the fluid has passed away, usually without pain, a thermophore is placed upon the abdomen for several hours. The lavage is practised daily for from twenty to twenty-five times in all. The author's reports show a marked improvement in all chronic cases. Children can be treated in the same way. The author compares the good results to those obtained by gastric lavage.

Cylindruria and Albuminuria in Erysipelas.—Dr. Robert Pollatschek (*Zentralblatt für Innere Medizin*, May 16th) finds that the kidneys are affected in about 38 per cent. of all cases of erysipelas. This is evidenced in the kidneys by the presence of casts with or without albumin, of albumin with or without casts, or of both. The presence of even large quantities of albumin with renal elements in the sediment may be only transitory, and does not necessarily imply an unfavorable prognosis.

Book Notices.

Studies from the Institute for Medical Research.

An Inquiry into the Ætiology and Pathology of Beri-beri. By HAMILTON WRIGHT, M. D., McGill, Director of the Institute for Medical Research, Federated Malay States. Volume 2. No. 1. Singapore: Kelly & Walsh, 1902.

The author of this study upon the ætiology and pathology of beri-beri had the exceptional advantage of pursuing his investigations in the Malay peninsula upon the Tamils, Telegues, Bengalis, Sikhs, Singhalese, Javanese, Boyanese, Filipinos, Chinese, and the native Malays. Most of his observations were made upon prisoners in the various jails, and the results and facts are set down in 547 paragraphs, together with numberless tables, plans, and statistics. The geography, geology, mineralogy, meteorology, and climatology are all considered as well as the hygienic status and the diet. And after all this laborious and careful study the results of his undertaking are hardly convincing. The author proposes the classification into acute pernicious beri-beri, acute beri-beri, and beri-beri residual paralysis. Arsenic is wholly excluded as a causative factor. A certain amount of routine bacteriological examinations were made, and several autopsies were performed and the organs carefully studied.

The author gives a theory that "fits" the facts observed, in which he states that beri-beri is due to a specific organism which gains entrance to the body *via* the mouth, that it develops and produces a toxine chiefly in the pyloric end of the stomach and duodenum, and that the toxine, being absorbed, has an atrophying effect on the peripheral terminations of the afferent and efferent neurones. He goes on to say that the organism escapes in the fæces, and is transmitted by contamination of food to others. The main lesions found in the acute cases are "congestion or inflammation and hæmorrhagic injection of the pyloric end of the stomach and the duodenum; chromatolysis and eccentricity of the nuclei of cells in the spinal cord and bulb, with more or less complete parenchymatous degeneration in the distal portions of both afferent and efferent fibres to which they act as trophic centres." The author has in preparation a paper on his study of cases of residual paralysis in beri-beri, and we shall look forward to its publication with much interest. Theory and hypothesis play far too important a rôle in the present study to place it on a firm scientific basis.

Les obsessions de la psychasthénie. Par le Dr. F. RAYMOND, Professeur de cliniques des maladies du système nerveux, etc., et le Dr. PIERRE JANET, Professeur de psychologie au Collège de France, etc. Avec 22 figures dans le texte. Paris: Félix Alcan, 1903. Pp. xxiv-542.

The present work, which issues from the laboratory of psychology of the clinic at the Salpêtrière, is based upon clinical lectures given before the students. It is written on the same plan as the second volume of *The Neurones and Fixed Ideas*, which was published in 1898. The first part of this

treatise, which has already appeared, dealt with the subject of obsessions and psychasthenia very largely from a psychological point of view, and correlated the mass of observations in such a way as to demonstrate the psychopathological processes and laws. The present volume makes use of the same material, but has for its object the presentation of clearly cut clinical pictures and types which may be of service to the practitioner. In other words, the end aimed at is medical, not psychological. The cases are designated by the same letters as were employed in the earlier work, so that comparison between the two is possible.

Raymond and Janet regard the neurasthenic state as the starting point in the development of psychasthenia and other abnormal psychical conditions. The underlying cause of neurasthenia, next to heredity, they find in a sort of exhaustion, a faulty metabolism, and also very largely in many cases in self-intoxication of various parts. They regard the neuroses of puberty as due most probably to some form of intoxication produced by genital changes.

Out of the simple neurasthenic state are developed more complex forms which are characterized by such features as a state of indecision (aboulia), by lack of initiative; by feelings of anxiety, emotional agitation, by states in which pains are complained of, which, in their severity, are out of all proportion to their cause. Lastly, there are those peculiar functional nervous states called the "phobias," of which agoraphobia and claustrophobia are the best known types.

Next to be considered are the tics. Tics of the neck, the foot, the back (one interesting case simulating vertebral disease), and the face. When hysteria can be excluded as a cause of these latter, Janet regards them as being of a psychasthenic nature. Lastly, the work contains the clinical histories of patients suffering from obsessions or fixed ideas of all kinds.

The cases are very fully presented in all their clinical aspects, and there is enough attention paid to their psychological bearings to demonstrate the relationships existing between the different kinds. Not the least interesting feature of the volume is the space devoted to the prognosis and treatment of the various cases. One is surprised at the amount of benefit which can come to psychasthenic patients from judicious and painstaking treatment.

Of course the very names of Raymond and Janet are sufficient recommendation to anyone interested in the abnormal psychical life to ensure an appreciative reception for this truly valuable treatise.

Transactions of the American Surgical Association. Volume the Twentieth.

This volume, by virtue of the wide range of the surgical topics considered, is the best proof of the assertion made by the presiding officer that the end of surgical proficiency has not yet been reached. It is not only in the array of the subjects presented, but in the thoroughness and painstaking handling of the matter as well, that the higher planes along which the surgeon is at work at present are indi-

cated. That a new generation of surgeons may in the natural course of events succeed the "surgeons of the hour," properly equipped, finds expression in the very practical essays bearing on the teaching of surgery, the discussion of which was liberally indulged in by the members. The ideas advanced, although far in advance of former views, do not take sufficient cognizance of out-patient departments not affiliated with the colleges as very important and fertile factors in imparting instruction. This gap might be filled, with advantage to the student, by some concessions on the part of the colleges.

Abdominal surgery, as heretofore, comes in for a preponderance of consideration, and the themes are far too numerous and of too equal merit to warrant any one of these to be singled out. The most significant article of advanced surgery is that of Matas, on the Radical Cure of Aneurysms.

Chronic Headache and its Treatment by Massage.

By GUSTAF NORSTROM, M. D., of the Faculty of Stockholm. New York and London: G. E. Stecher, 1903. Pp. 59.

The first work published by Norstrom claimed to be on the treatment of migraine. In the present treatise he discards the term migraine because of the criticism it invoked, and speaks instead of chronic headache. He contends that many cases with this ailment are due to chronic inflammatory deposits in the muscles of the neck. They are, in fact, of the nature of secondary neuralgias, the primary lesion being the myositis. He gives an account of fourteen cases, all of which were successfully treated by massage of the inflamed muscles. Some cases were accompanied by rheumatic affections elsewhere in the body, thus giving a clue as to the nature of disease. The duration of the headaches does not appear to render the prognosis unfavorable, one patient, a woman of fifty-five years, having been relieved of headaches from which she had suffered since she was eight years old.

The treatment varies as to the length of time required, depending largely upon the size and age of the deposit in the muscle. The massage has to be a fairly forcible and severe manipulation by means of the thumb. Norstrom does not allege that all forms of chronic headache can be cured by massage, but that certain cases are due to myositis in the neck muscles is a recognized fact, and their relief by massage is a method recommended by him and one certainly worthy of trial.

Diseases of Women A Clinical Guide to their Diagnosis and Treatment. By GEORGE ERNEST HERMAN, M. B., Lond., F. R. C. P., Obstetric Physician to and Lecturer on Midwifery at the London Hospital, Consulting Physician Accoucheur to the Tower Hamlets Dispensary, etc. With upwards of 250 Illustrations. Revised Edition. New York: William Wood & Company, 1903.

This new edition of Herman's widely known work is an excellent manual for the student and the practitioner. It is based on pathological and physiological principles, and is consequently scientific, while its broad clinical character gives it added value. While the illustrations in general cannot

be compared in point of beauty with those of many other textbooks of the present day, they are for the most part very clear and of a decided didactic value, proving, what we have often contended, that mere art in illustration does not necessarily embody clearness and teaching capacity.

As is well known, Herman's book is written about symptoms; that is, he takes certain symptoms complained of by the patient, and weaves about them their ætiology, their pathology, and their treatment. Thus, the chapter on pelvic pain is a veritable mine of information, while that on hæmorrhage is equally known for its completeness and scope. This division has its decided advantage for the student, since he correlates by necessity the semeiology of gynecological disease with its evoking factors. For the practitioner, too, this scheme is valuable, for it leads him in the direction of correct diagnosis.

Throughout the work there are abundant evidences of its scientific character, although there are many points in ætiology and in medical and surgical treatment in which the author differs with his American colleagues. These it is scarcely necessary to point out at this time, as the work was thoroughly reviewed upon its first appearance. Nevertheless, it stands as an excellent, an original, and in many respects, a unique exposition of gynecology.

BOOKS, ETC., RECEIVED.

Post-Mortem Pathology. A Manual of Post-mortem Examinations and the Interpretations to be Drawn Therefrom. A Practical Treatise for Students and Practitioners. By Henry W. Cattell, A. M., M. D., Pathologist to the Philadelphia Hospital and the West Philadelphia Hospital for Women, Etc. With 162 Illustrations. Philadelphia and London: J. B. Lippincott Company. 1903. Pp. v-372. (Price, \$3.00.)

L'Administration intestinale des Médicaments. (Étude expérimentale et clinique.) Par M. le Dr. Samuel Bernheim, Président de L'Oeuvre de la Tuberculose humaine; Rédacteur en chef de la "Revue Internationale de la Tuberculose." Paris: Maloine. Editeur 1903. Pp. 5-96. (Price, 2 francs.)

Le dispensaire Antituberculeux. (Avec 16 figures, intercalées dans le texte.) Par le Docteur Samuel Bernheim, Président de L'Oeuvre de la tuberculose humaine; Rédacteur en chef de la "Revue Internationale de la Tuberculose." Paris: Roussel, Editeur. Pp. 5-102.

Die Gallensteinkrankheit, ihre Entstehung, Verhütung und Heilung. Von Dr. Walther Nic. Clemm, Spezialarzt für Magen-, Darm- und Stoffwechsel-Krankheiten, Darmstadt. Berlin: Georg Klemm. 1903. Pp. 7-90.

Erneute Versuche über den Einfluss des Schilddrüsenverlustes und der Schilddrüsenfütterung auf die Heilung von Knochenbrüchen. Mit 3 Tafeln. Von Dr. G. P. Bayon, z.Z. Assistent an der Psychiatrischen Klinik. Von der hohen med. Fakultät zu Würzburg preisgekronete Arbeit. Würzburg: A. Stuber's Verlag (C. Kabitsch). 1903. Pp. 249-311.

La Pédiatrie Pratique. Journal de Clinique et de Thérapeutique Infantiles. Rédacteur en Chef: Dr. E. Ausset, Professeur Agrégé à la Faculté de Médecine de Lille. Lille, 1903.

A Text Book of Chemistry. For Students of Medicine, Pharmacy and Dentistry. By Edward Curtis Hill, M. S., M. D. Medical Analyst and Microscopist; Professor of Chemistry and Metallurgy in the Colorado College of Dental Surgery; Professor of Chemistry and Toxicology in the Denver and Gross College of Medicine, University of Denver. With 78 Illustrations, including nine full-page half-tone and colored plates. Philadelphia: F. A. Davis Company, 1903. Pp. v-523. (Price, \$3.00.)

Studies in the Psychology of Sex. By Havelock Ellis, L. S. A. (England); Fellow of the Medico-legal Society

of New York and Anthropological Society of Berlin, etc. Sold only to physicians, lawyers, clergymen, advanced teachers and scientists. Philadelphia: F. A. Davis Company. Pp. v-266. (Price, \$2.00.)

Surgical Asepsis. Especially adapted to Operations in the Home of the Patient. By Henry B. Palmer, M. D., Consulting Surgeon to the Central Maine General Hospital. With 90 Illustrations. Philadelphia: F. A. Davis Company, 1903 Pp. iii-231. (Price, \$1.25.)

Miscellany.

An Improvement on an Old Idea of an American Playwright.—In the third act of *Maitre Nitouche*, a farce now being played at the Nouveautés, Paris, there is a transformation which possesses humor, if it lacks verisimilitude. The scene is a gambling house, which the owner has arranged to present the appearance of a private sanitarium, in case of a raid. Accordingly when the "look-out" announces the arrival of a suspicious looking customer, the table is suddenly reversed and becomes magically covered with prescription bottles and ointment pots, while from the walls appear hospital cots. The punters, promptly undressed, jump into the beds and don nightcaps; they have become inmates of the sanitarium. The joke is that the visitor does not come from the police, but from the bureau of medical inspection!

Childbirth Per Rectum.—Dr. Milton J. Marsh (*Medical Council*, February) records a case in which he found, on answering the summons of a patient that the child had already been born, but that the placenta had not yet come away. Examination showed the cord projecting from the rectum. Further examination showed a longitudinal tear through the entire length of the posterior vaginal wall. The anus was immensely dilated and had two or three small tears of minor importance not extending along the rectum. The vulva showed no signs of having taken any part in the labor. The perinæum was uninjured. The cord extended from the open os uteri, through the tear into the rectum. The placenta was delivered by this route. The child weighed six or seven pounds. The rent in the rectovaginal septum was repaired with an uninterrupted silk suture. Recovery was rapid and continuous. This occurrence might, perhaps, not inaptly be termed childbirth "de profundis."

"Ourselves as Others See Us."—The *West London Medical Journal* for April says: "As producers of novelties, the Americans without doubt can 'lick creation,' as they themselves express it. Having exhausted all the ordinary pretexts for holding public dinners, they have been recently turning their attention to producing some novelties in this direction. For example, a Hay Fever Association has been organized with a view to having an annual banquet. Then not long ago it occurred to a wealthy lady who had been successfully operated upon for appendicitis, to give a large dinner party to those who had safely passed through the same ordeal. When her guests assembled for this appendicitis dinner they found, somewhat grimly, the table decorated with a miniature operating table on which lay a large wax doll

surrounded by miniature replicas of surgical instruments required at the operation, while another doll standing by the table was dressed as a hospital surgeon. Then, adding to the realism of the scene, miniature bandages, hot water bottle, and other appliances were also displayed." We hope that the hostess in question completed her realistic scene by an ample supply of "hospital comforts" for her guests.

Danish Hospitals.—Nurse Olga Müller, in the *Hospital* for April 25th, describes the Danish hospitals. She was trained at the Royal Frederick Hospital in Dr. Schous's Nurses' Home, Copenhagen. There the medical and surgical departments are in separate buildings, quite isolated from each other. There are about 100 patients in each department, with one head doctor, four candidates, a matron, six charge nurses, and eighteen probationers. Other women are employed to do the cleaning. Every ward contains twelve or fourteen patients. The walls are all painted, the floor brown (varnished), and it is washed, morning and evening, to make the air as fresh as possible. The shut-up stoves diffuse a regular heat night and day. Plants and flowers are not allowed in Danish wards, because it is said that they make the air heavy and gather bacilli. At 8 o'clock the wards are ready for the doctor's rounds, which always occur between 8 and 10 in the morning, and between 7 and 8 in the evening.

The patients' beds are drawn out into the wards away from the walls, so that the nurse is able to go all round the bed without difficulty. Most of the beds are about twenty inches high and are of iron. The bottoms of the beds are woven of wire, and spring a little, but not enough to make the patient nervous. The pillows are filled with wool, and the mattresses are stuffed with hair. These, however, instead of being in one piece are divided into three, so that the different parts of the mattress can be changed frequently. The nurse must be careful that the centre part is not hollow. It is very difficult to make beds for people who are crippled or hump backed. The nurse usually arranges the pillow with a depression in the middle, then with the hands shapes out a ring in order that the affected part may rest properly and without pressure. By the patient's bed a little table is placed, on the left hand side, to allow freedom of action to the nurse. Beside each bed is a towel, sponge and tooth-brush. All phthisis patients are isolated from the medical patients in a building by themselves, and all are given the open-air treatment. In the Earsuns Hospital at Copenhagen a great many of the phthisis cases are cured. The patients have a tepid sponge bath morning and evening; they live most of the day in the fresh air and sleep in rooms with open windows; if very mild at night they sleep out in the garden in tents. These people live on the best of food and take four or five meals a day.

There are only six patients in each surgical ward. The first week after an important operation the patient occupies a small ward alone. The operation room stands on one of the landings, isolated from all the wards. It is a very large room with electric

lights and the temperature about 65° to 70° F. The description of the operating room describes nothing with which we are not familiar. The anæsthetization is effected in an ante room. The doctor, matron, and nurses present always bathe before an operation. The doctor's jacket and matron's and nurses' dresses are sterilized before being worn. A Danish nurse wears a white dress and short sleeves. If possible the patient comes into the hospital a week before the operation and bathes every day by the doctor's orders. In Denmark, if a patient dies in one of the large wards, the rules are for the beds to be screened round and the body not to be moved to the mortuary until after the lapse of six hours. The nurse must keep a window open beside the bed.

Official News.

Infectious Diseases in New York:

We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending June 27, 1903:

DISEASES.	Week end'g June 20.		Week end'g June 27.	
	Cases.	Deaths.	Cases.	Deaths.
Measles	331	13	403	14
Diphtheria and Croup.....	433	57	399	49
Scarlet fever.....	228	19	210	16
Small-pox.....	0	0	0	0
Chicken-pox.....	00	0	54	1
Tuberculosis.....	283	112	263	142
Typhoid fever.....	50	7	56	7

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army, for the Week Ending June 27, 1903:

ARTHUR, WILLIAM H., Major and Surgeon. Relieved from duty in New York City, and ordered to duty in the Soldiers' Home, Washington, D. C.

BRECHEMIN, LOUIS, Major and Surgeon. Relieved from duty in the Philippines, and ordered to the United States for further orders.

CROSBY, WILLIAM D., Major and Surgeon. Relieved from duty at Camp George H. Thomas, Georgia, and ordered to Manila, Philippine Islands, for duty.

LYSTER, THEODORE C., First Lieutenant and Assistant Surgeon. Relieved from duty at West Point, N. Y., and ordered to New York City for duty as Attending Surgeon and Examiner of Recruits.

SHAW, HENRY A., Captain and Assistant Surgeon. Granted two months' leave of absence from July 1, 1903.

WHITCOMB, C. C., First Lieutenant and Assistant Surgeon. Ordered to report to the Commanding Officer, Fort Preble, Me., for assignment to duty.

Naval Intelligence:

Official List of Changes in the Medical Corps of the United States Navy, for the Week Ending June 27, 1903:

AMES, H. E., Medical Inspector. Commissioned Medical inspector from January 20, 1903.

ODELL, H. E., Passed Assistant Surgeon. Commissioned passed assistant surgeon from November 8, 1903.

PICKRELL, G., Surgeon. Detached from the Iowa and ordered home to wait orders.

STOKES, C. F., Surgeon. Detached from the Navy Yard, League Island, and ordered to the Bureau of Medicine and Surgery, Navy Department.

SNYDER, J. J., Assistant Surgeon. Detached from the Naval Hospital, Philadelphia, Pa., and granted sick leave.

VERNER, W. W., Assistant Surgeon. Ordered to the Naval Hospital, Philadelphia, Pa.

The following surgeons have been commissioned surgeons from March 3, 1903: C. D. BROWNELL, S. G. EVANS, C. E. RIGGS, M. K. JOHNSON, W. B. GROVE, E. O. HUNTINGTON, W. M. WHEELER, L. MORRIS, F. T. FLEADWELL, C. P. KINDELEBERGER and F. C. COOK.

Public Health and Marine-Hospital Service:

Official List of the Changes of Station and Duties of Commissioned and Non-commissioned Officers of the Public Health and Marine Hospital Service, for the Seven Days Ending June 25, 1903:

BREADY, J. E., Acting Assistant Surgeon. Leave of absence for three days granted Acting Assistant Surgeon Bready by Bureau letter of June 6th revoked.

BROOKS, S. D., Surgeon. Granted leave of absence for one day, June 22nd.

CARRINGTON, P. M., Surgeon. Six days' leave of absence, under paragraph 189 of the regulations, from June 20, 1903. Granted extension of leave of absence for seven days.

EARLE, B. H., Assistant Surgeon. Granted leave of absence for seven days, from June 25th.

GASSAWAY, J. M., Surgeon. Granted leave of absence for two days, from June 7th.

GRUBBS, S. B., Passed Assistant Surgeon. Granted extension of leave of absence for seven days, from June 23d.

GWYN, M. K., Assistant Surgeon. To report to Assistant Surgeon V. G. Heiser, recorder of board of examiners, Manila, P. I., on August 8, 1903, for examination to determine his fitness for promotion to the grade of passed assistant surgeon.

HARRIS, B. Y., Acting Assistant Surgeon. Granted leave of absence for thirty days, from July 22d.

HOBDY, W. C., Assistant Surgeon. To report to Passed Assistant Surgeon L. E. Cofer, recorder of board of examiners, Honolulu, H. I., on August 15, 1903, for examination to determine his fitness for promotion to the grade of passed assistant surgeon.

ILTIS, G. W., Pharmacist. To report to Passed Assistant Surgeon W. G. Stimpson, chairman of board of examiners, San Francisco, Cal., on June 29, 1903, for examination to determine his fitness for promotion to the grade of pharmacist of the second class.

SPRAGUE, E. K., Passed Assistant Surgeon. Leave of absence for seven days, from June 4, 1903, granted Passed Assistant Surgeon Sprague under paragraph 191 of the regulations, amended so as to be for four days only. Relieved from duty at Fort Stanton, N. M., and directed to proceed to Calcutta, India, for duty in the office of the U. S. Consul-General.

SWEETING, C. B., Acting Assistant Surgeon. Granted leave of absence, on account of sickness, for thirty days, from June 10th.

WASDIN, EUGENE, Surgeon. Granted leave of absence for three days, from June 20th.

WHITE, J. H., Surgeon. Granted leave of absence for one month, from July 2nd.

YOUNG, G. B., Passed Assistant Surgeon. Granted leave of absence for two months, from July 7th.

Boards Convened.

Board convened to meet at Washington, D. C., June 25, 1903, for the preparation of sketch plans and memoranda relative to a hospital building at Ellis Island, N. Y. Detail for the board: Assistant Surgeon-General L. L. WILLIAMS, chairman; Assistant Surgeon-General W. J. PETTUS, Surgeon G. W. STONER. Passed Assistant Surgeon J. C. PERRY, recorder.

Board convened to meet at San Francisco, Cal., June 29, 1903, for the examination of Pharmacist G. W. ILTIS to determine his fitness for promotion to the grade of pharmacist of the second class. Detail for the board: Passed Assistant Surgeon W. G. STIMPSON, chairman. Assistant Surgeon C. W. VOGEL, recorder.

Public Health and Marine-Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera and plague, have been reported to the surgeon-general, Public Health and Marine-Hospital Service, during the week ending June 27, 1903:

Smallpox—United States.

Places.	Date.	Cases.	Deaths.
Alabama—Mobile	June 13-20	3	
California—San Francisco	June 7-14	1	
Colorado—Denver	May 23-June 6	24	
Georgia—Atlanta	June 3-17	3	
Illinois—Belleville	June 13-20	3	
Illinois—Chicago	June 6-20	6	
Illinois—Danville	June 6-13	1	1
Indiana—Indianapolis	June 6-20	3	
Indiana—Kokomo	June 13-20	1	
Iowa—Des Moines	June 13-20	1	
Louisiana—New Orleans	June 13-20	2	
Maine—Ft. Kent and vicinity	June 13	9	
Maryland—Cumberland	May 1-31	24	4
Massachusetts—Fall River	June 6-20	7	
Michigan—Detroit	June 15-22	7	
Michigan—Flint	June 13-20	1	
Michigan—Grand Rapids	June 13-20	2	
Michigan—Port Huron	June 13-20	10	
Minnesota—Winona	June 13-20	1	
Missouri—St. Louis	June 7-21	18	
New Hampshire—Manchester	June 13-20	2	
New Hampshire—Nashua	June 13-20	1	
New York—Elmira	June 13-20	3	
Ohio—Cincinnati	June 12-19	7	
Ohio—Cleveland	June 6-13	1	
Ohio—Dayton	June 13-20	2	
Ohio—Hamilton	June 13-20	3	
Ohio—Toledo	May 30-June 13	8	1
Ohio—Warren	June 13-20	1	
Pennsylvania—Carlisle	June 7-21	4	
Pennsylvania—McKeesport	June 6-20	1	
Pennsylvania—Pittsburgh	June 6-20	49	4
		one case imported.	
Pennsylvania—Philadelphia	June 13-20	35	4
Tennessee—Memphis	June 13-20	1	
Tennessee—Nashville	June 13-20	1	
Utah—Salt Lake City	June 6-20	18	
Washington—Tacoma	June 15-22	1	
Washington—Whatcom	Jan. 1-June 1	14	2
Wisconsin—Milwaukee	June 13-20	10	

Smallpox—Foreign.

Argentina—Buenos Aires	Mar. 1-31		8
Austria—Prague	May 30-June 6	4	
Belgium—Antwerp	May 30-June 6	3	1
Belgium—Ghent	May 16-June 6	1	
Belgium—Liege	May 23-30	3	4
Brazil—Bahia	May 23-30	2	1
Brazil—Rio de Janeiro	May 10-27		
British Guiana—Demerara	Feb. 10-May 16	344	2
Canada—Hamilton	June 6-13	1	
Canada—Ontario	Apr. 1-30	122	2
Canada—Vancouver	May 1-31	1	
Canary Islands—Las Palmas	May 18-June 6	37	
Colombia—Bocas del Toro	June 2-9		4
Germany—Strasbourg	April 1-30	13	
Great Britain—Birmingham	May 30-June 13	9	
Great Britain—Bristol	May 30-June 6	1	
Great Britain—Dublin	May 30-June 6	15	3
Great Britain—Dundee	May 30-June 6	1	
Great Britain—Leeds	May 30-June 6	40	
Great Britain—Liverpool	May 30-June 13	81	5
Great Britain—London	May 30-June 6	24	
Great Britain—Manchester	May 23-June 6	20	4
Great Britain—Nottingham	May 23-30	2	
Great Britain—Newcastle on Tyne	May 30-June 6	2	
Great Britain—Sunderland	May 30-June 6	2	
India—Bombay	May 19-26	45	
Japan—Kobe	May 6-16	2	
Japan—Yokohama	May 16-23	1	
Mexico—City of Mexico	May 31-June 7	24	14
Russia—Moscow	May 23-30	8	1
Russia—Warsaw	May 16-23		1
Spain—Cadiz	May 1-31	1	
Straits Settlements—Singapore	Apr. 11-18	4	
Turkey—Smyrna	Apr. 19-26		1
Uruguay—Montevideo	Mar. 1-Apr. 5	22	

Yellow Fever.

Brazil—Rio de Janeiro	May 16-24		12
Colombia—Panama	June 8-15	3	1
Costa Rica—Limon	June 4-11		4
Mexico—Coatzacoalcas	May 30-June 6	1	
Mexico—Tampico	June 6-13	11	8
Mexico—Veracruz	June 6-13	30	10
Mexico—Vera Cruz	June 13-20	27	7

Cholera.

India—Bombay	May 19-26		1
India—Calcutta	May 16-23		71
Straits Settlements—Singapore	Apr. 11-18		1
Straits Settlements—Singapore	May 8-16		29

Plague.

Australia—Brisbane	Apr. 11-May 9	5	
Brazil—Rio de Janeiro	May 10-24		2
India—Bombay	May 10-26		255
India—Calcutta	May 16-23		47
India—Karachi	May 17-24	136	127
Mauritius	May 14-21	2	

Marriages and Deaths

Married.

BRENNAND—REYNOLDS.—In New Bedford, Massachusetts, on Monday, June 22d, Dr. E. C. Brennand and Miss Mabel Otis Reynolds.

BEYEA—WESTON.—In New York, N. Y., on Monday, June 22d, Dr. James Louis Beyea and Mrs. Frances Amelia Weston.

CHEWNING—MEETZE.—In Washington, D. C., on Wednesday, June 17th, Dr. William Jeffries Chewning and Miss Anne Page Meetze.

DUFFIELD—MANSFIELD.—In Suffern, N. Y., on Tuesday, June 23d, Dr. Warren L. Duffield and Miss Mary Mansfield.

FOREMAN—FORD.—In Olean, N. Y., on Wednesday, June 17th, Dr. Thomas F. Foreman and Miss Bessie V. Ford.

JOHNSTONE—SIGLER.—In New York, N. Y., Dr. George E. Johnstone and Miss Isabelle Sigler.

KREIDLER—SCHAUFERT.—In Cincinnati, Ohio, on Wednesday, June 24th, Dr. A. G. Kreidler and Miss Anna M. Schaufert.

LIPPINCOTT—LANGENDORF.—In Camden, N. J., on Tuesday, June 23d, Dr. A. Haines Lippincott and Miss Ellen Alberta Langendorf.

MORGAN—BLAKE.—In Philadelphia, Pa., on Wednesday, June 24th, Dr. Arthur C. Morgan and Miss Laura Blake.

NICHOLLS—MAGUIRE.—In Baltimore, Maryland, on Thursday, June 25th, Dr. Walter Lee Nicholls and Miss Mary Clare Maguire.

VEDDER—NORTON.—In Philadelphia, Pa., on Monday, June 22d, Dr. Edward B. Vedder, U. S. A., and Miss Lily Sheldrake Norton.

WAGLEY—SPARKS.—In Belmont, Louisiana, on Wednesday, June 17th, Dr. William Wagley and Miss Louise Sparks.

Died.

CARRICK.—In Cincinnati, on Monday, June 22d, Dr. A. L. Carrick, in the seventy-ninth year of his age.

CROCKER.—In Gardiner, Maine, on Friday, June 12th, Dr. Frank H. Crocker, in the fifty-first year of his age.

CROUCH.—In Shaftsbury, Michigan, on Saturday, June 20th, Dr. George W. Crouch, in the fifty-ninth year of his age.

EVERTS.—In Cincinnati, Ohio, on Friday, June 19th, Dr. O. Everets, in the seventy-seventh year of his age.

FONDA.—In Chicago, Illinois, on Saturday, June 20th, Dr. David B. Fonda, in the sixty-eighth year of his age.

FOSTER.—In Buffalo, N. Y., on Tuesday, June 16th, Dr. Hubbard A. Foster, in the fifty-sixth year of his age.

FRANCIS.—In Mansfield, Ohio, on Thursday, June 11th, Dr. David R. Francis, in the sixtieth year of his age.

HENDERSON.—In Chicago, Illinois, on Tuesday, June 23d, Dr. Nelson H. Henderson, in the forty-fifth year of his age.

MILLER.—In New York, N. Y., on Tuesday, June 16th, Dr. John C. Miller, in the fifty-seventh year of his age.

MILLER.—In New York, N. Y., on Tuesday, June 16th, Dr. F. C. Miller, in the forty-sixth year of his age.

MOORE.—In Butler, Pennsylvania, on Sunday, June 14th, Dr. J. W. F. Moore, in the thirty-seventh year of his age.

ORCHARD.—In Elizabeth, N. J., on Saturday, June 27th, Dr. William B. Orchard.

PARKER.—In Gallipolis, Ohio, on Friday, June 12th, Dr. E. W. Parker, in the fifty-fourth year of his age.

New York Medical Journal AND Philadelphia Medical Journal.

CONSOLIDATED.

A Weekly Review of Medicine

VOL. LXXVIII, No. 2.

SATURDAY, JULY 11, 1903.

WHOLE No. 1284.

Original Communications.

REPORT OF A CASE OF PERNICIOUS ANÆMIA WITH MARKED PTOSIS OF THE ABDOMINAL VISCERA.

By C. BERTRAM GAY, M. D.,

PROVIDENCE, R. I.,

SECOND ASSISTANT PHYSICIAN TO THE BUTLER HOSPITAL.

Up to 1885, Musser (1) was able to collect only thirty-nine cases of pernicious anæmia reported in this country. Concomitant with the advancement in technique of blood analysis, which has rendered its diagnosis more frequent and positive, there has been an increase in the cases recorded, until it can no longer be considered properly a rare disease. Nevertheless, it is still so relatively rare as to cause these reports to be of more than passing interest to the general practitioner. Furthermore, many of these reports may possibly add some facts of scientific value supplemental to the work of the ever zealous pathologist searching along these lines.

Ptosia of abdominal viscera is always of interest to the surgeon, the pathologist, and likewise to the anatomist. Therefore, because of this relative rarity of pernicious anæmia and because of the unusual malposition of the abdominal viscera, with corresponding unusual clinical features, this case is deemed worthy of being placed on record.

Clinical History.—Abstract from hospital notes. Patient, Mrs. L. P., aged twenty-six years, was admitted on the evening of November 22, 1902. She was sufficiently ill to require removal from her home in an ambulance.

Family History.—Negative.

Previous History.—Patient for several years had had a complexion peculiarly devoid of color. Anæmia as such was not recognized. About eight months previous to admission she sought medical relief from an annoying bladder trouble. Cystitis was diagnosed, the cause of which was, however, questionable. Anæmia was also recognized in a general way and treated expectantly. She improved and continued her work as a church soloist. Four weeks before admission, the bladder trouble returned and with it symptoms referable to the

right kidney; the anæmia became more noticeable. She was put to bed again and treated with special reference to the urinary tract. Pus, "in large amounts," was passed intermittently, but at times the urine was almost clear. Later the patient suddenly showed grave signs of exhaustion, both nervously and physically, and two weeks before admission her mind became somewhat clouded, and she talked more than was her wont. Mental symptoms increased to active confusional delirium, while the urinary symptoms improved somewhat. Commitment to the Butler Hospital was advised by her physician. From early reports of the patient we expected a case of great activity mentally, but on admission she was recognized as an extremely ill woman with a mind clouded to the point of mild confusional delirium, due doubtless to some toxic cause, but not as technically insane.

Physical Examination.—The patient has a face showing a drawn and pinched appearance. Complexion, extremely pale, and of a decided yellow tinge; no jaundice; sclera pale; the mucous membranes almost colorless; general development good; no emaciation.

Lungs.—Negative.

Heart.—Pulse 120, feeble but regular; apex in normal position; a marked breezy, systolic murmur is heard over the apex, not transmitted into the axilla; there is a loud, blowing, double murmur over the aortic area, transmitted both ways; a marked venous hum in the vessels of the neck on both sides is present, more marked over the right side; no atheroma of the arterial system is discoverable.

Abdomen.—There is considerably more rigidity of the right rectus muscle than of the left; below the right border of the ribs an indistinct mass can be palpated, and on percussion this can be sharply outlined; it extends downward to a level with the umbilicus, the lower border being convex downward; it is found quite movable and slips through the palpating fingers; the percussion note is flat all over the ilio-costal space and posteriorly in the lumbar region; furthermore, it extends below the xiphoid, and flatness is even found to the left of the median line; it is tender to palpation, and the patient lies constantly with the right thigh flexed upon the abdomen; it does not change in position to any extent with changes in position of the body; the colon is not definable in this vicinity.

Lymphatic System.—Negative.

Urinary System.—Urine voided on day following admission showed specific gravity, 1012; acid

reaction; trace of albumin; numerous pus and blood cells; granular casts and several peculiar refractive bodies, in shape much resembling spermatozooids.

Hæmatopoietic System.—Blood examination on morning of 24th, showed red cells, 1,536,000, white cells 12,800, and only 30 per cent. hæmoglobin. The cells were of the character of poikilocytes, megalocytes, and microcytes, with a few nucleated reds.

Treatment.—Arsenic, peptomangan and red bone marrow, with urotropin for the urinary condition.

November 25th.—Irritability of bladder to-day shown by very frequent urination of small amounts, and at times there has been annoying pain with the voiding; once or twice she was incontinent, due to discomfort and great desire. Preserved specimens of urine were light colored and contained only a few scattered pus corpuscles. Once during the day she manifested all the symptoms of collapse, with feeble pulse, also air and water hunger very marked; she rallied under active stimulation. The clouded mental state persists in a variable degree. Blood examination showed red cells 1,456,000, leucocytes 33,400, and hæmoglobin 25 per cent. Characteristics of individual cells the same as yesterday, though marked increase in leucocytes. Temperature no factor—100.6° F. the highest.

November 26th.—Urine contains quite a bulky pus sediment, urination less frequent. Blood examination shows continued decrease in red cells (1,117,000) and disproportionate drop in leucocytes from yesterday (15,776), hæmoglobin, 20 per cent. Temperature, 101.4° F. General condition unchanged.

November 27th.—Submammary infusion of saline added to the treatment. Infusion at 4 p. m., and heart reaction was good. During the evening she suffered a chill of mild severity without rigor or sweats, but soon fell into a quiet sleep. Late evening temperature was found to be 103.6° F. No blood count made, but urine was quite free from pus all day. Constipation continued pronounced; stomach irritable.

November 28th.—Main features of case unchanged during the early part of the day. Saline again given, submammary, and she bore the infusion well. Some two hours later, signs of marked exhaustion appeared, and in two hours more she developed a marked chill with vomiting. Urine unusually free from pus and less in quantity. Blood examination, 1,460,000 reds, 12,000 leucocytes, and 20 per cent. hæmoglobin. Temperature rapidly rose to 106° F. by midnight, and this, with the chills and sweats, and with a persistent mass in the right lumbar region, and two days of lessened and clearer urine, made an exploratory operation seem advisable. The consulting surgeon, Dr. J. C. Pegram, was summoned. He diagnosed the mass as previously mapped out, and thought pyonephrosis possible and an operation justifiable to learn state of kidney, and thus possibly to furnish a temporary check to the progressive anæmia.

Operation.—Performed by Dr. Pegram with the assistance of the hospital staff. The operation was a nephrotomy. The usual linear incision was made, though a little lower down. The fatty capsule was bound by old adhesions to the fibrous capsule; the kidney was prolapsed, somewhat larger than nor-

mal, and several hæmorrhagic spots were plainly visible under the fibrous capsule. No pus was found by aspirating several vantage points; no abscess sac found. The right liver lobe was found to be elongated, and this, with the enlarged and dislocated kidney, furnished the mass previously outlined. The fibrous capsule was split a short distance after the manner of Edebohls, the wound closed with interrupted silkworm sutures, and a gauze drain left at the most dependent point. The patient stood the ether and operation very well in spite of our fears to the contrary.

November 29th.—Patient has to-day showed no ill effects from exploratory operation; pain absent; highest temperature, 103.4° F. No blood count; urine voided naturally, free from any trace of blood and contains but little pus.

December 1st.—General and rapid decline with gradual drop in temperature for thirty-six hours. Mind stuporous; the waxy color is rapidly changing to a general deep lemon-yellow. Blood count a

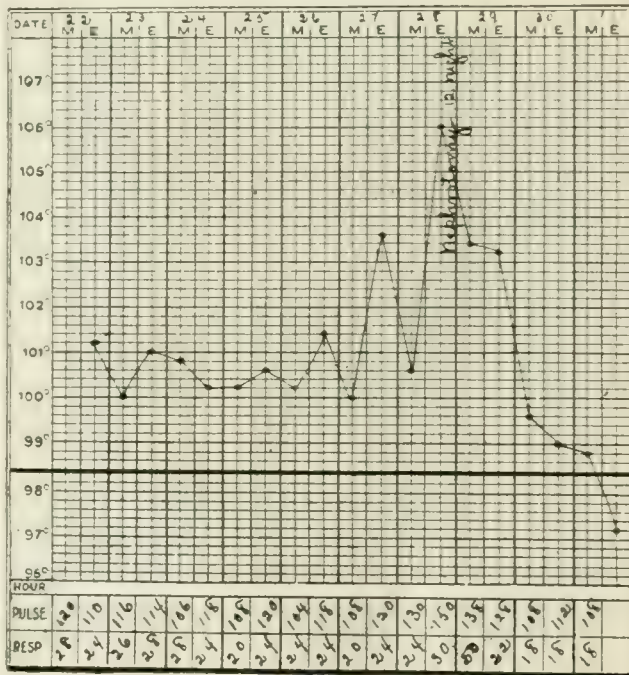


Chart in Dr. Gay's Case of Pernicious Anæmia.

few hours before death showed the red cells reduced to 696,000, leucocytes 8,000, and only 10 per cent. of hæmoglobin. Poikilocytes were much increased and nucleated reds were present. She died at 4.50 p. m.

The hæmolysis and leucocytosis are concisely shown, according to the different dates, by the following table:

Date.	Red Corpuscles.	White Corpuscles.	Hæmoglobin.	Color Index Corrected.
Nov. 24	1,536,000	12,800	30 per cent.	0.99
Nov. 25	1,456,000	33,400	30 " "	0.99
Nov. 26	1,117,000	15,776	25 " "	1.0
Nov. 28	1,460,000	12,000	20 " "	0.66
Dec. 1	696,000	8,000	15 " "	0.96

Clinical Diagnosis.—Pernicious anæmia associated with cystitis and an ascending pyelitis.

AUTOPSY.

Post mortem made by Dr. Gay in the presence of the consulting surgeon, Dr. Pegram, and several members of the hospital staff.

Autopsy 7 to 10 p. m., December 1st.

External Examination:

I. General inspection of body.

- a. Sex, female.
- b. Age, twenty-six years.
- c. Body length, 5 feet, 6 inches.
- d. Skeleton development, slender, but proportionate. No deformities.
- e. General nutrition, body well developed and well nourished. *No emaciation.*
- f. General characteristics of skin, elastic, soft, of a yellow, waxy color; no œdema; also no petechial hæmorrhages.
- g. Post mortem lividity absent, likewise all other post mortem discolorations.
- h. Post mortem rigidity absent except in fingers.

II. Special inspection of body parts.



FIG.—The Liver in Dr. Gay's Case of Pernicious Anæmia.

1. Head: Rather small; forehead medium; jaw and chin strong; ears, roof of mouth, etc., show no stigmata. Hair: Dark brown, abundant as to thickness and length; fine; moist. Scalp clean, very white, free from scales. Eyes: Blue; not sunken; pupils dilated; sclera jaundiced; no strabismus; lids closed; lashes long. Nose: Small, well formed and in proportion to face; orifices equal; sæptum not deflected. Mouth: Small; Cupid's bow of upper lip; lips parted; mucous membranes dry and very pale; teeth even.
2. Thorax: Rather long and narrow. Fossæ, supraclavicular and infraclavicular not prominent. Mammæ moderately well developed, no pigmentation of nipples.

3. Abdomen: Very slightly retracted; no prominences at any point. Incision linear, some 10 centimetres in length, seen in right lumbar region, the seat of previous operation. Silkworm interrupted sutures in position, also small gauze grain. Wound surgically clean.

4. Extremities: Both upper and lower well developed and symmetrical. Palms and tips of fingers pure white. Not the faintest movable color on pressing the nailbed.

Internal Examination.—The primary incision, anteriorly, extended from the upper border of the manubrium sterni to the symphysis pubis. Sternum removed by severing the costal cartilages in the usual manner.

I. Inspection of Abdominal and Thoracic Cavities.—Viscera in situ. Relations at once were seen to be disturbed. The liver was enlarged and showed increased outlines of the left lobe, both as to breadth and thickness; also downward enlargement of the right lobe, so that the margin reached to a point opposite the umbilicus in front and nearly to the anterior superior spine of the iliac crest of the same side. The various lobes were not plainly differentiated. Indeed, the whole organ much resembled a mass of liver tissue, somewhat wedge shaped, base above, and normal as to height, while the broadened apex hung downward and to the right as far as points named (see Fig.). The lower border of the right kidney could be seen at least 1 centimetre below the margin of this elongated right liver lobe as it hung down into the anterior lumbar region. On reflection of this lobe, four-fifths of the right kidney was seen to be in the anterior lumbar region, while the other one-fifth was up under the costal margin in the right hypochondrium. The outlines of this kidney showed hypertrophy.

The stomach was changed as to shape and relations. It much resembled the foetal stomach, for it seemed no more than an elongated and pouched œsophagus. It lay nearly parallel to the long axis of the body; the pyloric end was down to and a little to the right of the umbilicus. The pancreas was thus exposed to view for a width of some 10 centimetres, as it was not even covered by omental folds or mesocolon. The relation of the coils of small intestine to the stomach and colon was entirely abnormal. In fact only an occasional centimetre of colon could be seen on general inspection. The spleen and left kidney were not visible. Nothing abnormal presented on surface inspection of the thoracic contents.

II. Removal of Viscera from Abdomen:

1. Liver: Removal was effected without difficulty as there were no diaphragmatic or other adhesions. Ligaments normal. Shape now more triangular than wedge shaped. Right lobe elongated, margin sharp and thin. Left lobe hard to differentiate from main body of right lobe. In fact, all fissures not deep or characteristic. The tip of the gall bladder was visible as it projected from under the margin of the right lobe. Color of liver was very pale. Occasional dark areas under the capsule were found suggestive of hæmorrhage, and two posi-

tive hæmorrhages, one old, on the posterior surface of the margin of the right lobe, the other anteriorly on the liver dome and recent. The gall bladder was long and narrow and contained but little bile; it had adjusted its shape to the elongated right lobe, to the under side of which it was attached. The liver capsule stripped very easily. On section the liver cells were found to be pale, and the general consistency was suggestive of fatty change. The measurements of the entire liver through its greatest diameters were $26 \times 23 \times 7.5$ centimetres. The dimensions of that part of the right lobe which projected below the costal margin were $9.5 \times 10 \times 2.5$ centimetres. Though the organ gave the impression of being hypertrophied, it was under normal average weight. Weight, 1,380 grammes.

2. Spleen: Easily removed. Normal in position, no adhesions. Color pale in areas, which gave it a fine mottled appearance; the under side was a little irregular and suggested a tendency to lobulation. Capsule was wrinkled, stripped very easily; on section, splenic pulp dark cherry red and soft. The deep color of the pulp was apparently due to hypostatic congestion. Dimensions, $14 \times 9 \times 3$ centimetres through greatest diameters; weight 225 grammes. Slight splenic hypertrophy thus apparent.

3. Kidneys and adrenals: *a.* Left kidney, normal as to position; easily removed from its fatty investment. Color of capsule pale; capsule stripped easily. Section showed extreme anæmia of cortex and medulla. Consistency was a little firmer than normal. Relations of cortex and medulla, which should be as one to three, were disturbed so that in places cortex was wanting, in others it was wider than normal. The kidney measured $11 \times 5.5 \times 3.5$ centimetres, and weighed 140 grammes.

b. Right kidney was originally a floating kidney, and four-fifths of it was found in the lumbar region anteriorly, the other one-fifth being low down in the right hypochondrium. It was bound by adhesions on all sides and removed with great difficulty. The color of the capsule was mottled; several areas showed hæmorrhage into the tissue, while several showed the line of puncture by the aspirating needle, used *ante mortem*. The capsule was split for about 5 centimetres on the outer surface opposite the hilum, and this linear incision was also the seat of dry blood clots. Incision into the capsule was made *ante mortem* at time of exploratory operation. Capsule stripped easily; section showed an anæmic condition of cortex and medulla; consistency, as in the left kidney, firmer than normal. Here, too, were the relations of cortex and medulla changed as described in the left kidney. The hilum was carefully opened and in it and many of the

calices pus was found. This kidney showed hypertrophy and apparent fatty change. The kidney measured $12 \times 7 \times 4$ centimetres, and weighed 160 grammes.

c. Adrenals:

1. Left suprarenal found normal as to place and dimensions. Color pale.

2. Right suprarenal not found due to adhesions and changed relations on that side.

4. Ureters: Normal as to position and dimensions. No change in mucous lining throughout their course.

5. Bladder: This viscus was partially distended with clear amber colored urine. The wall was somewhat indurated, and the mucous lining showed a macerated epithelium in places, with pale hæmorrhages into the muscular coat beneath.

6. The urethra was not examined.

7. Pancreas: Shape and position good; color a deep reddish pink; consistency softer than normal. Exposed before being dislodged to the inspection of the anterior surface for about 10 centimetres, as previously explained. Measurements $18 \times 5 \times 2$ centimetres; weight, 90 grammes.

8. Gastrointestinal tract:

a. Stomach: Malposition that of gastrop-tosis with pyloric dilatation, as noted under general inspection. Partially distended with fluid. No pathological characteristics presented in wall or mucous lining, macroscopically. Length of pouch about 20 centimetres; width not more than 4 centimetres at any point.

b. Intestines: Duodenum opened and search made for duodenal ulcer. Entrance of common duct and pancreatic duct in normal position. Mucous lining corrugated and bathed in bile; no ulcer or hæmorrhage into mucous membrane found. Rest of the small intestine non-pathological macroscopically. Colon disturbed as to relations; a few adhesions found on the right, welding it to the kidney. Appendix, 7 centimetres long, found lying downward and inward. It had a considerable mesentery of its own; was normal throughout.

9. Mesentery and lymph glands: The mesentery was pale and contained very little fat. Scattered here and there throughout its course were various sized lymph nodules, some white, others pink or dark red with hæmorrhage. These hæmorrhagic glands were especially noticeable on the left, over the bifurcation of the abdominal aorta near the brim of the pelvis, and many dipped down into the pelvis on this side. The nodules varied in measurements from 10×12 millimetres to $15 \times 9 \times 5$ centimetres. Consistency of all was moderately hard on section.

10. Peritonæum negative; no fluid in cavity.

III. Removal of Thoracic Contents:

1. Heart: Mediastinal fat scanty; no enlarged glands here. Pericardium normal. Pericardial fluid clear and white; 10 cubic centimetres by measurement. Walls of the heart suggested fatty change; muscle pale, of a yellowish brown color. All sets of valves normal. Weight 210 grammes. No atheroma or other abnormalities of great vessels. Coronary vessels filled with thin, watery blood.
2. Lungs and bronchi: Normal, with the exception of a few old pleuritic adhesions of the right side. These were attached to the pleura over the middle lobe. Only slight anthracosis present.

IV. *Pelvic Viscera*.—Uterus and ovaries removed; both found to be a little under developed; position normal; a corpus luteum found in right ovary. Nothing else revealed on section.

V. *Brain and spinal cord* not examined; also long bones not examined. (No permission.)

The autopsy ended at this point.

VI. Microscopical Examination:

1. *Liver*.—Localized areas of increased connective tissue throughout; disintegrated blood corpuscles; deposits of brown pigment noted, both intercellular and intracellular. Beginning fatty change towards the centre. *Hemosiderosis*.
2. *Spleen*. Capsule thickened; connective tissue increased in scattered areas; increase of stroma about Malpighian bodies, some entirely obliterated. Abnormal invasion of leucocytes. Large deposits of pigment. Marked *hemosiderosis*.
3. *Kidneys*: Chronic parenchymatous nephritis with beginning interstitial change. Ascending pyelitis. Many convoluted tubules show broken tube casts and granular and fatty debris; hyaline degeneration of a few glomeruli. *Hemosiderosis*.
4. *Bladder*: Degenerated epithelium with increase of blood elements; thickening of mucosa and muscularis in places.
5. *Pancreas*: Hyperplasia of stroma with widening of blood spaces; lobulation hard to define; congestion.
6. *Stomach and Intestines*: Mucous membrane somewhat atrophied; otherwise negative.
7. *Lymph Glands*: Increase in stroma; hæmorrhagic extravasation with leucocytes predominating and disintegration of many corpuscles. *Hemosiderosis*. The retroperitoneal glands show all the characteristics of true hæmolymph glands.
Hæmosiderin proved in the liver, spleen, kidneys, and lymph glands by the potassium ferrocyanide test.
8. *Heart*: Some scattered areas show beginning fatty change.
9. *Lungs*: Simply show slight congestion of alveolar capillaries.
10. *Uterus and Ovaries*: Negative.

VII. Pathological Diagnosis:

1. Hepatic malformation with cirrhotic and fatty change.
2. Splenic hypertrophy and congestion.
3. Kidney malposition. Chronic parenchymatous nephritis with ascending pyelitis and beginning interstitial change.
4. Chronic cystitis.
5. Pancreatic congestion.
6. Gastropnoxis and enteropnoxis with mucous atrophy.
7. Hæmorrhagic mesentery lymph glands and retroperitoneal glands.
8. Beginning fatty degeneration of heart.
9. Partial right adhesive pleuritis with hypostatic congestion of lungs.
10. Pernicious anæmia.

It will be seen on careful study of this report that we have dealt with a complicated case of pernicious anæmia. Even so good an authority as Tyson (2) makes the statement that pernicious anæmia is still the least understood of all the anæmias, and as this case is one of pernicious anæmia and a complicated case, we will briefly call attention to the salient points of ætiology, clinical symptoms, and the morbid anatomy peculiar to it.

Ætiology.—Addison, who first so ably grouped the clinical symptoms and affixed the name of pernicious anæmia, believed such symptoms to be idiopathic and idiopathic alone. More recent investigators, however, believe that the term idiopathic, as applied to any disease, is only an admission of ignorance concerning the cause, and, after all has been said and done, a cause still exists, though undiscovered. In many cases of progressive anæmia several positive causes have been fixed upon, and it has become customary to designate such cases as secondary in origin in contradistinction to those of undiscoverable cause, though clinically they are found to be absolutely indistinguishable.

Granting this more modern explanation, to what are we to point for our ætiology? We have a liver showing marked malformation, also a stomach partaking in shape of all the characteristics of the infant's stomach, accompanied by ptosis of most of the other abdominal viscera. Added to this is a cystitis and an ascending pyelitis. Quincke (3) and Hunter (4) both advance the theory (the one now generally accepted) that hæmolytic poison is caused by faulty gastrointestinal digestion; that this toxine is then carried by the portal system to the liver, where the active hæmolysis is carried on. Warthin (5), by late investigations, adds to this the theory that the poison is not confined to the portal areas alone, but is present in the general circulation and acts on the hæmolymph glands especially, and likewise on the spleen and bone marrow. We here find a stomach incapable of anything but faulty gastrointestinal digestion as proved both clinically and pathologically,

and, according to these authorities, toxins thus produced could easily be a cause of the hæmolytic in the liver and elsewhere. Osler (6) emphatically states that atrophy of the stomach may cause a progressive pernicious anæmia. If we apply these accepted facts to this stomach we need search no further for an ætiology, since, in the faulty assimilation of this malformed and atrophied stomach, we have a sufficient cause. When malformed and prolapsed liver is also considered as a factor, hampering an already weak gastric function, we again materially add to our accepted ætiology. The cystitis and pyelitis over a long period of months were thought from the study of the clinical symptoms alone to be an ætiological feature, but further study eliminates this as a cause and places it as a secondary and complicating symptom.

Clinical Features.—The points of chief clinical interest after the diagnosis of pernicious anæmia was established, were the urinary symptoms and the peculiar temperature of the last few days. The alternating shedding of pus and clear urine with the diagnosed mass in the right ilio-lumbar region, caused us to be positive of a pyonephrosis. This opinion was strengthened by the apparent change in outline of the lower boundary of the mass as differentiated by percussion. The change seemed to be synchronous with the change in the amount of pus, and the main mass was so constant that we were satisfied with the explanation of a pyonephrosis which occasionally had an overflow of a small quantity of pus, the bulk remaining. This condition had evidently become chronic, according to our history; hence a temperature of 100° to 101° F. seemed not inconsistent with a renal condition where pyuria had long been established, and there was an occasional opening of the occluded hilum or ureter. Later when the temperature rapidly rose to 103.6° F. at night, with a mild chill, accompanied with a clear urinary output for several days, and this condition was repeated on the following day with the rather unusual temperature of 106° F., we reasoned that there was a pyonephrosis, that it had become more active, and that this manifestation was a septic condition appearing in a patient of constantly decreasing resistance.

Operation seemed eminently justifiable to all consulted and was performed with results previously named. Though the patient was believed to have pernicious anæmia, we considered that if a surgical kidney was present it should at least be drained for temporary relief. The mass was the displaced liver and prolapsed kidney. No abscess sac was found, but small amounts of pus were present in the pelvis only, as was later shown. There was apparently not sufficient pus to cause such a sudden elevation

of temperature. To what then can we ascribe the interesting temperature chart (p. 58)? All authorities agree that in pernicious anæmia the temperature is a symptom of little importance. If high temperature is present, it is irregular and may be either remittent or intermitent. Bramwell (7) notes that the febrile paroxysms in pernicious anæmia seem to occur in association with paroxysmal exacerbations of blood destruction. In Bramwell's (7) abstract of forty-eight case histories there are found but eight in which there is any mention of temperature, and in three of these the highest temperature, above 102° F., was due to recognized complications of a febrile nature. Osler (8) says that fever is not a considered symptom, though present in three-fourths of the cases of pernicious anæmia. Stengel (9) adds that if fever is present the temperature rarely exceeds 101° or 102° F. In Warthin's eight cases recently reported with special reference to the hæmolymphnodes, no temperature is referred to except in the eighth case, when it was specially recorded as 102° F. Then, we may safely assume that the high temperature was due to no trick of the profound anæmic condition, and we can eliminate this cause, together with the idea of a large collection of pus in the kidney. The chief factor now believed to be responsible for the elevation was lost sight of at the consultation before the operation. The temperature reaction that may follow blood transfusion or saline infusion was not considered carefully enough. Even so recognized an authority as Cohen (10) states that a rise of temperature invariably follows intravenous and subcutaneous infusion of saline and such rise can be regarded favorably. Bramwell (7) mentions one case where chills and fever (103° F.) followed blood transfusion. Kemp (11), in a series of experiments with hypodermoclysis and enteroclysis, found that invariably the body and blood temperature began to rise in ten minutes after the beginning of the operation. In our case hypodermoclysis was practised on each afternoon preceding the sudden change in temperature, and on each day the nurse reported, some three or four hours later, chills, sweating, and the slowly rising temperature. All these symptoms were much more marked on the second day. In the light of these statements by various authors, we now believe that the apparently septic nature of the temperature was due chiefly to the reaction from hypodermoclysis in a much exhausted patient. George Blumer, of Albany, who saw this patient with us, suggests the possibility that this reactionary temperature was somewhat supplemented by a mild terminal septicæmia from the long standing condition of pyuria, which cultures might have proved.

One other case is found reported by Peters (12),

of New York, where a displaced liver was operated on as a case of hydronephrosis. The autopsy disclosed ptosis of the liver and a vertical stomach with a normal kidney. On scrutiny of the blood analysis, condensed as in the accompanying table for quick comparison, another clinical feature presents which is not seen in an uncomplicated case of pernicious anæmia. A marked leucocytosis prevailed for several days. The only plausible explanation of this clinical feature is referable to the cystitis and pyelitis.

Morbid Anatomy.—The morbid anatomy of the liver of pernicious anæmia is little considered by those writing on this subject. Osler (13) states that the liver is normal in size, pale and generally fatty. He also adds that in none of the eighty-four cases collected by Eichorst was the liver a marked feature. Liver abnormalities are also not mentioned by Bramwell (7) in his abstract of forty-eight case histories. Warthin (5), however, describes the case of a patient in whom the liver was three fingers' breadth below the ensiform, and a hand's breadth below the edge of the ribs. In both these patients the abdominal organs were otherwise negative. There is no mention made in all these cases of accompanying gastropotosis or enteropotosis.

Francine (14), in a recent exhaustive and critical study of gastropotosis with reference to one hundred cases, does not mention finding these conditions accompanied by pernicious anæmia. The only blood disease thus associated is chlorosis, described by Meinert in 1894. He considered chlorosis as an ætiological factor in gastropotosis, but this has not been generally accepted. We present a case, then, of pernicious anæmia, not only with ptosis and malformation of the liver, but also associated with gastropotosis and enteropotosis.

The ætiology of the anæmia has been discussed, and it only remains to explain the condition of the liver and stomach. We are pleased to term these conditions congenital in this particular case, because with the liver ptosis is a shape consisting in a persistence of the foetal type. Though Francine (14) asserts that such ptosis may be acquired in the sense of a retrograde movement in adult life to the foetal position of the viscera, still we prefer to attribute this condition to one of faulty development. We reach this conclusion only after exclusion of trauma, tight lacing, pregnancy, parasites, and malignant growths, all of which are imputed as acquired causes. We possess a positive history from an intelligent source that the patient never wore corsets, and for years she had supported all her clothing from the shoulders as much as possible, so as to aid her in her vocal calling. Reliable history also excludes trauma in this region. She never was preg-

nant, though married some ten years. A movable right kidney is an almost constant accompaniment of hepatic ptosis and gastropotosis, as asserted by all, whether the latter condition is congenital or acquired. Thus far, few authors have referred to the lymph glands as holding any important place in the morbid anatomy of pernicious anæmia. Warthin (6), in his able article, already alluded to, on Lymph Nodes in Pernicious Anæmia, discusses this disputed point at length. He ironically remarks that the reason for attributing no pathological significance to these glands is that they have not been looked for and carefully studied at post mortem, since he found them in all eight of his cases.

This report furnishes one more case in which the lymph glands enter importantly into the morbid anatomy, thus substantiating Warthin's theory. The cherry red retroperitoneal glands, some speckled and spotted, others solid in their color characteristics, are doubtless the true hæmolymph glands to which he refers. The microscopical changes, with the hæmosiderin deposits, compare in detail with those described by him. The other general microscopical features of all viscera are identical with those described in uncomplicated cases of pernicious anæmia. The blood table (p. 58) presents all the features of a progressive hæmolysis. Nucleated red cells were present in several counts, and these, with the presence of iron deposits in the liver, have long been considered pathognomonic. The hæmoglobin per cent. depicts one of the pernicious anæmia cases in which the color index is proportionately low. Treatment, as previously cited, availed nothing.

In closing, the author desires to acknowledge his indebtedness to Dr. J. D. Kramer, of the hospital staff, for valuable assistance in the urinary and blood analysis, and also in microscopical technique.

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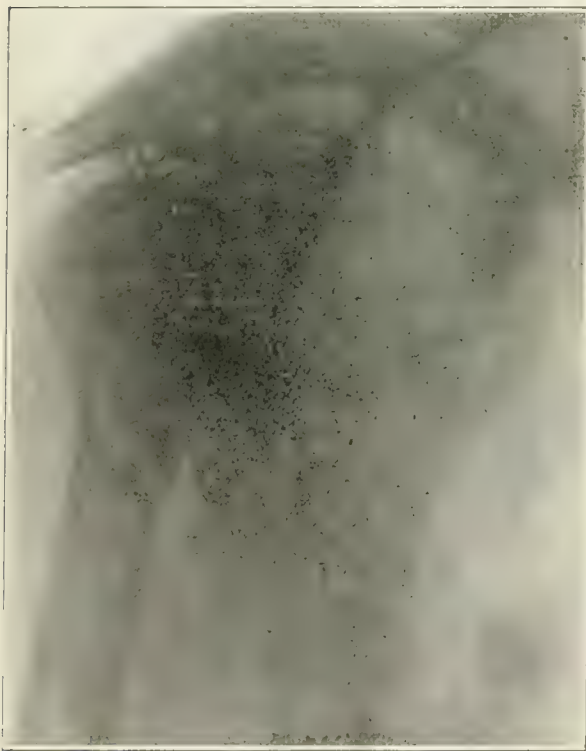
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HUMEROACROMIAL SUTURE FOR HABITUAL DISLOCATION OF SHOULDER.*

By CARL BECK, M. D.,
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AND HOSPITAL; VISITING SURGEON TO THE ST. MARK'S
HOSPITAL AND TO THE GERMAN POLIKLINIK.

The patient, who is twenty-two years old, dislocated his shoulder at various times. The first dislocation occurred about two years ago, when the patient fell from a car. He was accompanied by an audacious friend who succeeded, by simply pulling, in reducing the dislocation. The second time it occurred when he lifted a bundle and tried to shift it aside. Reposition was then done in a



Dr. Carl Beck's Case of Humeroacromial Suture.

hospital. The third time it occurred two weeks ago after a slight manipulation. Reduction was effected by himself this time. He became so much afraid of trying to lift anything that he was advised by his family physician to undergo the operation of contracting the capsule.

When I first saw the patient, no visible signs of any abnormality were found around the joint. An incision, made between the deltoid and pectoralis major muscles, exposed the acromion as well as the anterior surface of the capsule. The latter was found to be so much relaxed that a fold could be taken up and contracted by carrying a purse string suture through it. At the same time, a hole was drilled into the head of the humerus, as well as in the acromion, and a medium sized silver wire was carried through it (see skiagraphic illustration). By this procedure retention of the head by adhesion formation was expected. No evidence of rupture of the supraspinatus and infraspinatus muscles, causing rupture of the capsule, was found; nor does the skiagraph indicate any abnormality of the joint. No reaction followed the operation. The wire was removed five weeks after the operation. The final result, as it presents itself six months after the operation, proves to be perfect.

A DEVICE TO PROTECT AGAINST INFECTION IN OPERATIONS ON AND AROUND THE RECTUM.

By J. M. LYNCH, M. D.,
NEW YORK.

Dr. J. P. Tuttle, in his recent work on *Disease of the Rectum*, says: "The operation of removing the rectum is now almost two centuries old. Faget performed it, in 1739, and Lisfranc first successfully extirpated the rectum for cancer, in 1826. The results of the operation in nine cases were embodied in a thesis by one of his students. The results in these cases were not calculated to create any great enthusiasm, for the mortality was high, owing to the lack of aseptic technique. In fact, until the introduction of aseptic surgery, many surgeons claimed the operation was never justifiable. More recently, this mortality has been much reduced, and many of those who properly condemned the operation now favor it in properly selected cases."

"A study of the causes of death shows that there is reason to hope the high mortality from the operation will some day be reduced. Hupp finds, in a collection of 881 cases with 171 fatalities, that 26.8 per cent. occur from sepsis. Finet gives 17 per cent. from septicæmia.

* Presented to the Surgical Section of the Academy of Medicine, December 8th, 1902.

"Quénu and Hartmann say that if the cases of peritonitis, septicæmia, gangrene and pyæmia were all united under the one head, sepsis, we should



FIG. 1. The Outer Jointed, and Inner Perfect Rings.

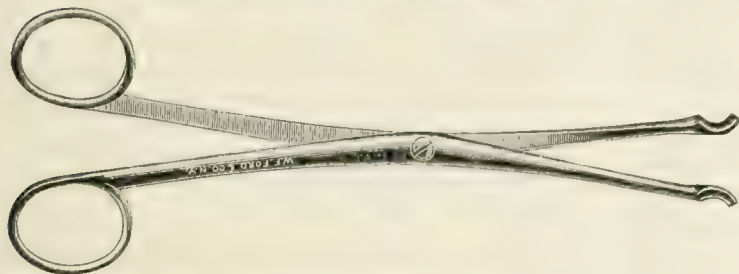


FIG. 2. The Forceps Carrier.

have a mortality from this cause, of over 60 per cent., and even this is below the reality. . . . The author is entirely in accord with the views of these eminent surgeons. . . .

"The high mortality from this operation, therefore, is due, not to the magnitude or difficulty of the procedure, but to infection. We have not arrived at that stage of perfection in aseptic technique in this variety of operations that we have in many others. Carelessness in detail is the cause of much of this. The author has seen various operators do extirpation of the rectum, and time after time, during the procedure, introduce a finger into the gut, and back into the wound. It is absolutely impossible to sterilize the intestinal canal, however much care is taken."

Infection in extirpation of the rectum may come from discharge from the bowels into the wound, or from the introduction of the finger into the rectum and then into the wound. To obviate this, Quénu, after separating the mucous membrane from the skin, and then dissecting up about half an inch inside the sphincter, ties off the portion dissected and cauterizes the ends with the blade of a Paquelin cautery, as a precaution against infecting the wound.

But while Quénu's method went a long way in the right direction, it precluded the use of the finger as a guide, and any surgeon who has performed this operation readily appreciates the disadvantage of this. To overcome this difficulty, and complete what Quénu had in mind, I present this device:

Two concavoconvex metal rings, a carrier, and condom. The inner ring is perforated with four holes, corresponding to the hours of 6, 9, 12, and 3, on the dial of a clock, to enable it to be sutured to the skin in operations on the prostate.

The ring is introduced by a carrier (Fig. 2), which is nothing more than two retractors fastened together like a dilator; this fits into the convex surface of the inner ring, then a condom is fitted on the concave groove of the same ring and an elastic band is placed around this to keep it in position.

The outer ring (Fig. 1) has a hinge corresponding to the 9 o'clock perforation; and a clasp corresponding to the 3 o'clock perforation is so arranged that it fits exactly the different thicknesses of gut. With the carrier in position and the condom on, the inner ring is now introduced into the cylinder of mucous membrane which has previously been dissected up inside the sphincter, the outer ring is clasped over it, and, with the finger in the ring, the gut can be dissected up above a tumor with the finger in the rectum as a guide, and with no possible fear of infection from the bowel.

49 WEST THIRTY-THIRD STREET.

INTRAVASCULAR ANTISEPSIS.*

BY CHARLES CLIFFORD BARROWS, M. D.,
NEW YORK.

(Concluded from p. 5.)

Cases V and VI are reported by Dr. Reginald H. Jackson, of Madison, Wis., and were treated in conjunction with his son, Dr. R. H. Jackson, Jr., recently of the staff of the Presbyterian Hospital of New York.

CASE V.—Mrs. S., aged twenty-three, was first seen by Dr. Jackson, on February 10, 1903. On January 8th the patient had been delivered of a normal child. The lochia were dark and scanty, and on the tenth day the patient had a severe chill. Since then chills have been repeated at irregular intervals of a day or two, the temperature ranging between 102° and 104° F. There has been rapid loss of flesh and strength, especially during the past week, through inability to retain nourishment, the stomach rejecting everything. There is no abdominal pain or tenderness.

On February 10th, the patient, when first seen by Dr. Jackson, presented the following condition: Poorly nourished; emaciated; slight icteric hue of skin and conjunctiva; facial expression characteristic of sepsis; tongue dry and brown; superficial glands not enlarged. Heart, apex beat fifth space, three inches to left of median line; action rapid, regular, of poor force; soft systolic murmur at base. Pulse 120, poor quality. Lungs normal. Respiration 24. Temperature 104°. Abdomen soft,

* Read before the Academy of Medicine, Section in Gynecology, May 21, 1903.

not distended; no tenderness, no masses. Liver and spleen normal. No evidences on examination of any pelvic inflammation. No uterine discharge; uterus empty.

The patient presented a picture of sepsis in which the constitutional symptoms predominated. There was a slight temporary improvement in response to general stimulating treatment, but this was followed on January 18th, 19th, and 20th, by severe chills, the temperature being practically at all times above 104°. On January 21st, 22nd, and 23rd, 10 cubic centimetres of antistreptococcic serum were given subcutaneously. No change was noted except that the patient was rapidly failing; stomach rejected everything except champagne which was given *ad libitum*.

January 24th, temperature 105°; severe chill; pulse 124. It was apparent that the patient could not last much longer. As a *dernier ressort* it was suggested that the formalin injection be tried. This was accepted. January 26th, 3 p. m., 600 cubic centimetres normal saline formalin solution 1 to 5000, temperature 120° F., in reservoir, was given intravenously. No bad symptoms were noted, the patient reacting to the stimulus. At 6 o'clock, two hours after the completion of the infusion, the temperature had fallen to 100°, and the pulse to 104.

January 27th, temperature 99.4°, pulse 100.

January 28th, temperature 99.8°, pulse 104.

January 29th, temperature 102.6°, pulse 114.

January 30th, temperature 102.8°, pulse 104.

The fact that the patient was still alive seemed indicative of beneficial effect.

On January 31st, at 2 p. m., 900 cubic centimetres normal saline formalin solution 1 to 2500, were given intravenously. No bad effects whatsoever were noted.

January 31st, p. m., temperature 100°.

February 1st, p. m., temperature 99°.

From this time on, the temperature was never above 99°, and the convalescence was uneventful.

In reference to this case, Dr. Jackson says, "One of those hopeless cases so often seen in the wards of a city hospital in which a glance at the patient and the temperature chart is enough to show that a fatal termination is inevitable. It may be objected that no bacteriological examination was made to confirm the diagnosis. Only those who have made these examinations know how often they are unsatisfactory, and that in many negative cases the fatal termination leaves no doubt about the correct diagnosis. The patient presented a perfect clinical picture of advanced general puerperal infection, in which, in spite of all other methods of treatment, dissolution seemed imminent, and was surely an excellent test case for the employment of intravenous antiseptics."

CASE VI.—Reported by Dr. Jackson, who was so much impressed by the former case that he did not hesitate to resort to the method again.

Mrs. J., aged twenty. Patient was first seen by

Dr. Jackson on February 21, 1903. Six days prior to this, on February 15th, the patient had aborted at the fourth month. A chill with high fever was reported on the second day. The patient rapidly passed into a septic condition, her temperature ranging from 104° to 106° F., with frequent chills. Examination showed the uterine cavity empty, with odorless mucopurulent discharge. The uterus was enlarged, tender, and boggy, with a slight tender infiltration of the left broad ligament. For three days prior to the time patient was seen by Dr. Jackson there was heat, swelling, and redness, with pain and tenderness in the right elbow. These conditions seemed to indicate a general pyæmia. Temperature 105°, pulse 120. Guided by his experience in the case already reported, Dr. Jackson believed that a stronger solution of formalin might be used to good effect in this case for the primary injection. Accordingly 800 cubic centimetres of a normal saline formalin solution, 1 to 3000, at a temperature of 120° F. in reservoir, were injected intravenously. No bad symptoms whatsoever were noted. The uterus was gently curetted with an irrigating curette, using a weak solution of formalin. Practically no debris was removed and the odor was not offensive. Dr. Jackson did not see the patient again, but the reports to him showed that the temperature gradually fell, and the patient made an excellent recovery. The local condition in the elbow subsided, and involution of the uterus was satisfactorily established. There were no evidences of any blood changes such as would be indicated by great anæmia or tardiness of convalescence.

CASE VII.—Dr. William Francis Honan, of New York, has reported to me the following case.

The patient had miscarried ten days prior to the time she was seen by Dr. Honan. For four days she had had high temperature and pulse rate, tympanites and delirium. When seen about two hours after admission, her temperature was 104.3° F., pulse 132, respiration 34, abdomen tympanitic, enormously distended and exquisitely tender to the touch, particularly on the right side. Both recti muscles were tense; this was especially marked on the right side; face pale, drawn, and anxious. General appearance decidedly septic. Vaginal examination showed uterus fixed, the right broad ligament infiltrated, left slightly so, and the uterine arteries pulsating violently. The pelvic structures were situated high, and with the great distention of the abdomen bimanual examination was difficult. It was decided to try the solution of formalin according to the formula of Dr. Barrows, and under chloroform and oxygen anæsthesia the right median basilic vein was exposed, and 700 cubic centimetres of a 1 to 5000 solution of formalin in sterile water were allowed to flow from a transfusion apparatus into the general circulation. Examination of the pelvic contents did not add much to the result of the previous investigations.

Shortly after this operation the patient was seized with a chill which lasted some minutes, after which the temperature rapidly reached 105° and the pulse 148. Six hours later, much to our surprise and gratification, the temperature was 98.6°, pulse 104. Patient was passing gas freely, abdomen had re-

laxed, urine was copious, and she declared she was very comfortable. On the third day all signs continued favorable, except a disposition to a slight rise in temperature and accelerated pulse. Afternoon temperature 101° , pulse 112. It was decided to do posterior colpotomy, as we now felt almost certain that there must be a focus of pus in the right broad ligament.

This operation was undertaken three days after the first injection of formalin, and about one ounce of foetid pus was evacuated from the right side of the pelvis in connection with the tube and ovary. At the same time 300 cubic centimetres of the formalin solution was injected into the left median basilic vein. The beneficent effect noted after the first injection was not so pronounced after the second, though the patient gradually improved and is now practically convalescent. Examination of the blood showed leucocytosis and the presence of streptococci. The effect resultant from this treatment which was particularly marked, was the general improvement in the *morale* of the patient. She brightened up, her organs performed their functions well, she was entirely free from pain, the complexion cleared, and a condition of depression gave way to one of decided cheeriness.

Experiences of this kind are at this writing extremely limited, and though little may be learned from one instance, some deductions may be made to guide us in future cases. I am convinced, with Dr. Barrows, that the formalin solution accomplished more than does a simple saline, and that it has as well a decided action on the streptococci. The introduction of so much fluid into the circulation is of great assistance to the emunctories of the body, particularly to the skin and kidneys.

One very surprising feature was the effect upon the greatly distended abdomen and the rapidity with which intestinal peristalsis was reestablished.

CASE VIII.—Reported to me by Dr. Honan:

Mrs. W., aged twenty, married, one child, one miscarriage, supposed to be about four months' pregnant; began to flow slightly on January 17th, miscarried February 3rd, about five months' foetus. She developed a rise of temperature and pulse—temperature 105° F., pulse 150, and her uterus was curetted on February 10th; that is to say, one week after the miscarriage. The physician who curetted her stated that he removed some clots and membranes, using a sharp curette for that purpose.

The temperature fell somewhat, but at the end of twenty-four hours, it was again 105° . She was admitted to the Hahnemann Hospital, on February 15th. Examination at the time showed no evidence of peritonitis, general or local, no fixation of the uterus or annexa; temperature was 104.2° , pulse 118, respirations 36. She was evidently suffering from a general sepsis, and this was conclusively proved by examinations of the discharges and blood, since streptococci were found in all of these. On February 15th, 10.30 a. m., she was given an intravenous infusion of 750 cubic centimetres, 1 to 3000 formalin. This was followed by a chill, with a rise of temperature to 105.2° , although her pulse receded to 108. At 7 o'clock on the following

morning her temperature was 99° , her pulse 102, and her respiration was 24. Her temperature then rose, by 4 o'clock in the afternoon, to 106.5° , but her pulse was only 100, while her respirations were 38. The next morning, her temperature was 101.6° , her pulse 106, and her respirations 36. From this time on there was a gradual defervescence until, on April 23rd, her temperature was 99° , and her pulse 98. The patient then made a rapid and satisfactory convalescence, and on March 23rd was discharged well. No evidence of any morphological change was found in the blood cells at any time after the infusion, although an infusion of 1 to 3000 was given instead of 1 to 5000.

In these two cases reported by Dr. Honan the treatment differed somewhat. In the first case, sterile water was used as a menstruum; in the second case, a normal salt solution, the strength of the formalin being 1 to 5000 in the first case, and 1 to 3000 in the second. The high temperature which occurred in the second case seemed to be reactionary, and gave the patient no discomfort whatever, not even a headache.

Both cases showed the presence of streptococci in the uterine discharges and in the blood examinations; no changes were noted in the corpuscular elements of the blood after the infusions had been given in either case, although frequent examinations were made by competent pathologists. No material was found in the uteri of either woman, both being carefully examined at the time of the infusion.

CASE IX.—The following case, reported to me by Dr. Niles, through the courtesy of Dr. Kennedy, of St. Catherine's Hospital, in Brooklyn, was evidently one of general streptococcic infection following a full term delivery in which a hysterectomy had been done. The patient had been in the hospital some weeks prior to the operation, suffering from apparently severe sepsis, in which her temperature ranged from 101° to 105° F. and her pulse as high as 130. On January 2nd, an abdominal hysterectomy was performed; the uterus was found soft, full of pus, and was removed *in toto*. Her temperature, which had been 105° on the night before, then dropped to 99° ; but on the following night it rose to 106° and then fell to 100° in the morning, continuing with this range for seven days. An infusion of formalin was then made, 750 cubic centimetres, 1 to 5000, in sterile water. The temperature at the time was 105° . Immediately after the infusion, it was 103° . The patient then suffered from a severe chill and the temperature rose to 105° gradually subsiding, until twenty-four hours afterward, when it reached 100° . In forty-eight hours it had again risen to 104° . A second infusion of 1000 cubic centimetres, 1 to 5000 formalin, in normal saline solution, was given. Her temperature promptly dropped to 101° , and has since then never risen above 99.6° . Her general condition continued to improve, and the patient has been discharged from the hospital, well.

I regret very much that there is no record of the pulse in this case, but in a verbal report, the doctor has stated that the pulse rate was very high, and the woman was regarded as practically *in extremis* when the first infusion was given.

CASES X AND XI.—In addition to the cases above cited two successful cases have been reported to me by Dr. Henry Chandlee, of Baltimore, in which he tells me that streptococci were found in the uterine discharges and also in the blood. These cases were both of them profoundly septic, with high temperature and pulse above 140. In one of these cases, pyæmic abscesses had already developed. Two infusions of 750 cubic centimetres of formalin, 1 to 5000, in normal salt solution, were given in each case, at intervals of forty-eight hours. Both cases have made excellent recoveries.

Perhaps it may not be out of place to mention here two cases of profound sepsis, following operations for appendicitis—one reported to me by Dr. J. H. Carmichael, of Springfield, Mass., and the other by Dr. S. L. Lloyd, of Williamstown, Mass. Each of the patients was the subject of a septic peritonitis of a profound type, and recovered promptly and satisfactorily after two infusions of formaldehyde. In Dr. Lloyd's case a normal saline solution was employed as a menstruum, and in Dr. Carmichael's sterile water. No evidences of any morphological changes in the blood were found in either case.

These cases represent all that have been treated with my cooperation, with the exception of a single fatal case treated by myself, in which the woman was practically moribund from pyæmia, with multiple abscesses in her lungs. The same marked improvement of pulse, respiration, temperature, and general condition occurred in this woman within a few hours after the infusion, but she died, as was expected, within forty-eight hours after the infusion was given. At this hour, her temperature was 105°, her pulse could not be counted, and her respirations were 70. So that little hope could be had for even a temporary benefit in her case.

In the study of these cases, all of them being in subjects of the profoundest type of general puerperal sepsis, in which after other forms of treatment had failed, very positive and very satisfactory results followed the intravenous infusion of a solution of formaldehyde, many things are to be considered.

Would these patients have recovered without treatment of any kind? I believe that a study of the reports will satisfy any intelligent clinician that all of these patients were rapidly approaching dissolution.

Were they in any way injured by the infusions?

The very satisfactory convalescences in each case, and the additional evidence of the microscope in most of the cases, that the cellular elements of the blood had undergone no morphological changes, force us to the conclusion that the intravascular infusions have, at least, so far as we have gone, surely resulted in no harm to the patient.

Has the beneficial result in the cases cited been due to the formaldehyde or the medium which has been used for its introduction? In four cases the solution of formaldehyde was made in simple sterile water, and in the others in normal salt solution—there was practically no difference in the behavior of the cases. So that the benefit could not have been due to a salt solution as has been suggested. The question then arises—Was it simply due to the introduction of a quantity of fluid into the general circulation? I had hoped to be able to present to you cases treated by the infusion of simple saline, in order that a comparison might be instituted, but my unfortunate accident put an end to all my work some months ago. In a single case of general puerperal sepsis in which 1,000 cubic centimetres of normal salt solution was injected into the median basilic vein by my associate, Dr. George D. Hamlen, no change was noted in the patient's condition, or the progress of the disease to a speedy fatal termination. No further opportunity has been, however, afforded for experiments in this direction.

Many explanations have been offered as to the action of the solution of formaldehyde, other than the idea which prompted its use by the writer, *i. e.*, the inhibition of the development of the bacteria and the neutralizing of the toxins they are supposed to produce. It has been suggested that a simple dilution of the toxic stream might account for the results, or an increase in the phagocytes, and various other explanations more or less ingenious.

There is, however, in the *Monthly Cyclopædia of Practical Medicine* for February, 1903, a leading article by C. E. de M. Sajous, which may throw much light on the subject. Commenting on Dr. Barrows's article as published in the *New York Medical Journal*, January 31, 1903, Sajous suggests that the beneficial effect of the treatment depends upon the stimulation of the adrenal system by the formaldehyde.

"In the light of prevailing views, the foregoing method of treatment does not seem capable of standing scrutiny with experimental evidence as the standard, as shown by the adverse criticism already published. Interpreted from the standpoint of our views, however, with the functions of the ductless glands as factors of the process involved, the results obtained by the author are not only accounted

for, but they represent a valuable contribution to our knowledge of scientific therapeutics.

"The only logical inference to be derived from this interpretation now seems to us to be the following: *While Dr. Barrows saved his case of septicæmia by stimulating the adrenal system of his patient by means of a weak solution of formaldehyde, Dr. Fortescue Brickdale killed his rabbits by using excessive doses: i. e., doses which overwhelmed their adrenal system.*

"In the light of this interpretation, similar results should be obtained in other cases provided the strength of the solution recommended by Dr. Barrows be not exceeded, and particularly if his recommendation that normal salt solution be used for the formalin solution be carried out, since he continues: 'It has been found that no change takes place in the formaldehyde in this solution.'"

That these predictions of the distinguished writer quoted have been realized would seem to be proved beyond question by the cases here reported.

The writer does not intend to convey the idea that his suggestions as to this line of treatment simply mean the introduction into the circulation of a chemical agent which may neutralize morbid conditions existing there, as might be done in a test tube in the laboratory. Nor does he wish to stand as a champion for the single chemical agent which has given such satisfaction in his own hands. His hope is that a study of these cases, as illustrative of a plan of treatment which he has suggested, may stimulate others to work along lines and in a field until now practically wholly unexplored.

8 WEST THIRTY-SIXTH STREET.

MENTAL ABERRATION CONSEQUENT UPON PELVIC DISEASE—CASES.

By L. G. HANLEY, M. D., A. M., PH. D.,
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It is generally conceded that pelvic disease in the female excites to a very marked degree any neuropathic condition that may exist. We all know that persons of lowered mental tone are susceptible to psychical disturbances, and pelvic disease evidently aggravates this condition. While the literature on this subject has not been very exhaustive, yet sufficient has been written to demonstrate fully that much benefit can be derived by the correction of any existing pathological condition. No woman of to-day should be committed to an insane asylum

without first receiving a thorough examination of her pelvic organs, and should any disease be found she should be treated before having the stigma of *non compos mentis* branded upon her. The insane woman is as deserving of operative treatment as one of sound mind, and statistics show most gratifying results. The physician should ever be on his guard in cases in which the ancestry has shown any mental aberration, for pelvic disease is more apt to produce psychosis in these cases than where this predisposing cause does not exist.

Chapin states that 90 per cent. of the admissions to the hospitals present the condition and appearance of some form of bodily ill health, and among the female patients the greater number are affected with pelvic disease. Melancholia is the most common form that has existed in cases operated on by me. This form of insanity has existed from various degrees of depression or despondency to "the dejection of those who believed themselves lost among the damned." One of the above type was a great sufferer from dysmenorrhœa—family history not known—a melancholic of the severest type, bordering upon mania just preceding the menstrual flow, followed by an acute dementia in which the reasoning power seemed to be lost. This would last about a week when she would fall back into her melancholic state. Both ovaries were removed, as the uterus was normal. This was three years ago. The patient is cured.

Elliott Gorton says that "where the ancestral epoch acts as the exciting cause of insanity, the ovaries should be removed, even if there is no evidence of local disease. This surgical procedure seems to be well advised, for the offspring of such individuals would be of lowered tone mentally, and it is better to have them exist as sterile women than to have them married and beget children with the same neuroses. We should not wait too long in our operative treatment, as the mental calibre will be so reduced that it cannot be restored."

A. T. Hobbs (*Journal of Mental Science*, January, 1898) says: "A systematic examination of all insane patients, aided in nearly every case by anæsthesia, gave the startling result that 93 out of 100 insane women had pelvic disease; 89 were operated upon, with the result that [*sic*] 37.5 per cent. mental recoveries, 22.5 improved, 35 per cent. unchanged, 5 per cent. deaths."

Rohe (*Journal of Mental Science*, 1898) says: "Sixty per cent. of the insane women examined had some abnormal condition of the pelvic organs distinctly pathological and easily recognized. The primary question is the relief of local disease. A summary of 34 cases shows 11 complete recoveries, 9 improved, 11 unimproved in men-

tal condition, and 3 deaths. These statistics of themselves would seem to show that the most scrupulous consideration should be given the pelvic organs when examining insane people. If the physical basis of melancholia is supposed anæmia of the brain, pelvic disease is sufficient cause for such anæmia."

Gill Wiley (*Medical Record*, August 4, 1894) reports 3 cases of well marked melancholia, apparently dependent upon local pelvic disease. These recovered physically and mentally after appropriate local treatment, and one of the patients had been insane four years and had been nine months in an insane asylum. A sound mind in a sound body, when analyzed, would show that one is dependent upon the other, and either when diseased, will affect the other to a greater or less degree.

CASE I.—July 8, 1900, Mrs. R., aged twenty-five years, melancholic; married nine years; children, 2; family history, negative. Dysmenorrhœa; complained of pain in head, back, and abdomen; never sick until six years ago, when last child was born. Since then she had been unable to attend to the children or household duties; extremely nervous, depressed, anæmic, easily excited; afraid, as she says, "that she will do some harm to herself or her children." Flows profusely during menstrual period. She is suffering from bilateral laceration of cervix, retroversion and prolapse, hæmatoma, and cystic degeneration of both ovaries. Operation, one year after, when she gained forty pounds. Cured.

CASE II.—October 8, 1901, Miss L., aged thirty years, orphan; family history, negative; melancholic; physical condition, poor; suffers from dysmenorrhœa; committed as insane; ovaritis. Operation; cured. Has held a position of trust since January 1, 1902.

CASE III.—December 8, 1900, Miss R., aged twenty-four years, domestic. Family history shows no insanity. During menstrual period becomes despondent; melancholic; wanders away from home; convulsions. There is an endometritis and constriction of the os. Operation; cured.

CASE IV.—September 4, 1900, Miss C., aged twenty years; orphan. Committed to insane asylum. Family history negative. Endometritis, convulsions and mania during menstrual period. Operation; cured.

CASE V.—April 10, 1901, S. M., aged thirty-two years. Oophoritis; dysmenorrhœa. Family history good; has been an invalid for several years; melancholic; anæmic. Committed to an institution for the insane. Prays to be left alone. Requires the presence of an attendant. Oophorectomy; cured.

CASE VI.—Mrs. B., aged thirty years, married. Committed to retreat for the insane, October 31, 1900. Nativity of parent not known. Melancholic;

complains of pain in abdomen; does not attend to her household duties. Has received local treatments, which, as she said, made her worse. Sits for hours staring into space. Examination reveals bilateral laceration of cervix. Complete retroversion and prolapse. Cystic condition of both ovaries. Operation; cured. See *Buffalo Medical Journal*, June, 1901.

CASE VII.—May 27, 1901, Miss G., aged twenty-three years. Family history, negative; menstrual function normal until two years ago, when, on riding a wheel, she ran into a wagon and struck abdomen against the wheel. Dysmenorrhœa, melancholia, convulsions during menstrual period, also mania. Oophorectomy; cured. See *Buffalo Medical Journal*, January, 1902.

CASE VIII.—October 8, 1900, Miss L., aged thirty years, melancholic. Sister is a nymphomaniac. Family history further not known. Suffers from dysmenorrhœa, ovaritis. Two years ago had a miscarriage. Worries over the sins she has committed. Wanders away from home. Remains away the greater part of day and night. Cries and sobs continually. Thinks she is injured physically and morally. Operation. Much improved.

CASE IX.—January 20, 1900, Mrs. M., aged twenty-five years; endometritis, dysmenorrhœa; two years ago produced an abortion upon herself. Thinks that the sin she has committed will never be forgiven. Is now desirous of becoming pregnant. Cured. January, 1902, two months pregnant; feels well.

CASE X.—February 3, 1899, Miss M., aged seventeen years; melancholia; dysmenorrhœa, convulsions during menstrual period; loss of memory for four days. Obligated to be taken from school during that time. Dilatation of cervix and curetting. Cured.

428 PORTER AVENUE.

THE SOURCE OF TYPHOID FEVER.

By CHARLES F. DAVIDSON, M. D.,
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On account of so much being written about the source of the germs of typhoid fever, some condemning drinking water, some milk, and some fruit and vegetables, I have endeavored to find the source of infection of the last thirty cases I have had; and, owing to my patients being scattered in different sections of Talbot County, some of them twenty miles apart, some among the very highest, and some among the lowest classes of society, I have been able to trace the infection with a great deal of accuracy.

Easton gets its drinking water from a well 1,072 feet deep, and not one of these thirty cases has oc-

curred in a person who drank, exclusively, water from this well, except one. I will begin with this case.

CASE I.—The wife of a leading lawyer of the Easton bar was taken sick October 1, 1901; the case ran a typical and severe course, and I discharged the patient November 10, 1901. Her family consisted of herself, husband, and three children, twelve, nine, and four years of age respectively. She had not been out of Easton for over a year, and during that time had drunk only Easton water. She was the only member of her family who ate butter, except the child four years old, and for this reason I suspected the butter. The butter she used came from a farm three miles from Easton. I visited this place and found two colored men sick with typhoid fever; there had been three cases there in the summer of 1900, and in the summer of 1902, the year following my case, the proprietor of the place had typhoid fever and died of it.

CASE II.—On November 6, 1901, thirty-six days after the patient in Case I was stricken, I was called ten miles from Easton to see a splendidly developed girl, aged thirteen years, who lived with her father, mother, three grown sisters, and a brother nine years old.

The patient had visited her cousin (the patient in the case just cited) in the month of September, and was there when the latter was taken sick. I found this patient with typhoid fever. I discharged her December 8, 1901, after a struggle requiring 137 tub baths.

Here were two cases, I think, directly attributable to that butter which had become infected by being packed in pans washed in water from an infected well that was responsible for six cases on the farm, and the death of the proprietor.

CASE III.—On September 3, 1901, I saw a girl, eleven years old, two miles and a half from Easton, and diagnosed typhoid fever. The patient was discharged on October 17, 1901, after a typical, although not severe, run of the fever, requiring no tubbing, as I was able to keep the temperature down to 102° F. with sponges. I examined the premises and found everything in perfect order; the well was bricked three feet above ground and cemented inside. The family consisted of father, mother, and two daughters, eleven and fourteen years old respectively.

On inquiry I found that, ten days before I was called, the father, while out driving with his family, had stopped at a house by the roadside and the girl had drunk a glass of water; she was the only one who did drink any water. I visited this house and found two colored youths sick in bed, and their doctor said they had typhoid fever.

CASE IV.—On October 21, 1902, I was called two miles from Easton to see a girl (colored), fifteen years old. I diagnosed typhoid fever; found that during the months of August and September, and to October 10th, she had been a nurse

girl in the family of Mr. M——, a resident in the suburbs of Easton. I interviewed Mr. M——, whose family consisted of himself, his wife, four children, varying in age from thirteen years to four months, with his mother and sister. He said that in the late summer of 1900 his sister had had a continued fever for five weeks, and in the early summer of 1901, one of his children had had fever for five weeks; in the latter part of 1901 another child had been sick with fever. He had had his well examined and had found a leak in the pipe going to the cesspool, which pipe ran close to the well. He further said that he had sent the water from the well to an expert to be examined, and that he had received a report that the water "was suspicious." Now this colored girl was one of a family of eight, living two miles from Easton, and had lived with other members of her family at the home for years, having no trouble until she went to nurse and to drink water from the well that was responsible for the sickness of Mr. M——'s children.

CASE V.—On June 22, 1902, Mr. H—— came to my office. His temperature was 103° F. I sent him home and to bed. The next morning when I visited him his temperature was 101° F. I diagnosed typhoid fever. The case ran a typical course, and I discharged the patient July 16th. His family consisted of father, mother, and two grown sisters, all except the patient having been at home for four months. Three weeks before being sick, he had visited a small town twenty miles from Easton, and had stayed with a family where two cases of typhoid fever had recently occurred.

CASE VI.—On September 19, 1902, I was called to see a twelve year old son of a laborer, whose family consisted of his wife and six children; four of these children lived at home, and two on the adjoining farm. From this date, September 19th, to January 6th, the four children and himself had typhoid fever; the two other children, who drank water from another well, escaped.

All the others of the thirty cases I have looked into were equally traceable to the drinking water, but I have mentioned, in detail, enough.

Take Case I: All the patient's family ate the same fruit and vegetables. She alone ate the butter, and she alone had typhoid fever. Then, her cousin, in Case II, goes there to visit. She left seven of her family at home. All of them had been eating fruit and vegetables from the same garden all the summer. If what they ate had been infected, why was she the only one that received the germ? No, she ate the butter that the first patient was eating, which was kept in pans that had been washed in the water that the two colored men on the farm were drinking, which water in the following summer was responsible also for the death of the owner of the farm.

In Case III, the patient lived with her father, mother and sister. They all drank from the same well, and ate from the same table; but she and she

alone, drank a cup of water from the well on the road side, and she alone of the family had typhoid fever, while at the house where she drank the water two others at that time were suffering from the same cause. I could go on through the whole thirty cases. I do not pretend to say that fruit and vegetables are not sometimes responsible for typhoid fever, for I see no reason why strawberries, tomatoes, and such things that lie on the ground and are in contact with water that might come from an infected source should not cause it; but, so far as my observations go, I have not been able to trace a single case to anything except an infected well.

THE PECULIAR CASE OF LAM AH CHAN.

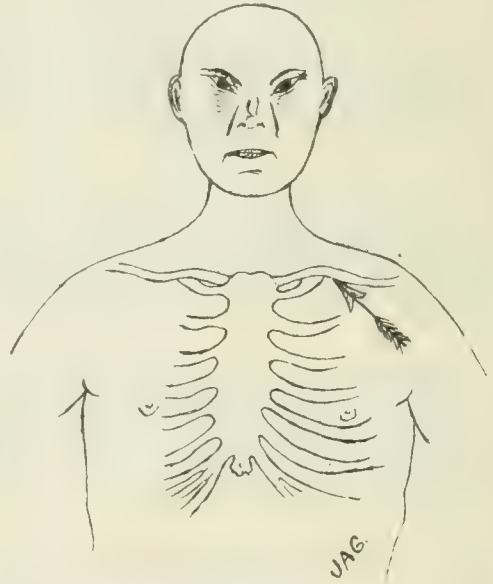
By J. A. GUTHRIE, M. D.,

SURGEON U. S. N.

While serving as medical officer in charge of the garrison at the naval station, and I may add, of the native inhabitants in the Island of Basilan, who are American subjects, this case came under my care. I may say, in prelude, that Basilan is an island, the most southerly of the Philippines proper, and has about eight thousand inhabitants, mostly Yacan and Mollussa Moros. I may also state that the building assigned to me as a hospital was a ramshackle, tumble-down, barn-like affair, constructed upon piling over the water; and that with the exception of my apothecary, an excellent man, my help was the poorest and most inefficient. Occasionally a young graduate in medicine, who was then in the lumber business at Port Isabela, came over to offer his advice; but beyond this meagre assistance, I was dependent entirely upon my own supervision of the case, day and night.

CASE.—Lam Ah Chan was employed as a cook by the naval and marine officers stationed in Basilan—*a* civilian employee, not a regular enlisted man of Uncle Sam's service. On the morning of May 29, 1902, while coming from the galley house, he was shot through the chest by a Filipino "mess attendant." I was holding sick call at the time, and saw the man in less than two minutes afterward, the incident occurring very near my office, where I found him prone upon the floor in an unconscious state. I took note of the lead bullet imbedded in the wall behind where he apparently stood when he fell, and drew some conclusions therefrom. I picked the bullet out, after carefully measuring its distance from the floor, taking notice of its course after it had penetrated the planking. The ball entered his body immediately below the left clavicle, grazing that bone, which deflected it downward and inward, passing in this direction to the median line of the dorsum, at about the upper portion of the body of the fifth dorsal vertebra. There was, from the first, complete paraplegia and loss of sensation below the point of

exit, and at once it was suspected that the spinal column had been seriously injured, or at least, that the cord had received some laceration. After the primary shock and unconsciousness had subsided, and about an hour after receiving the wound, he vomited the contents of his stomach mixed with nearly an ounce and a half of dark coagulated blood. Perforation of the stomach and immediate operative procedure was considered; but I decided against it, as I did not consider it warrantable, unless the bullet had zigzagged in its downward course, which would have been more than unusual considering the point of penetration, its velocity and the general circumstances attending the case; perforation of the œsophagus seemed more plausible to my mind. No blood or bloody mucus was expectorated, hence injury to the lungs or bronchi was eliminated, the bullet having passed by these in its course somewhere through the mediastinum. After it impinged against the body of the dorsal vertebra it was again deflected, this time upwards, as was proved by its



direction in penetrating the wood above the man's head. Prompt examination of his spinal column revealed no crushing of the bones, as all normal movements of the back were produced by manipulation, thus demonstrating no material injury to the bony structure. His quick recovery of consciousness and the minor degree of surgical shock, suggested one of two things—either an extraordinary amount of vitality, or that no harm had been done outside of considerable congestion of the cord. His temperature, taken at intervals throughout this day, remained below 100° F. At about eight o'clock p. m., he again vomited, this time a watery fluid containing a slight increase of coagulated blood over the amount of the forenoon; the pulse became weaker, remaining so for several hours.

May 30th.—Tympanites was beginning. He passed up during the day a small quantity of coagulated blood, presumably from the œsophagus. Catheterization; the bowels were emptied artificially. Nutrient enemata. Complained of great pain all over chest; morphine sulphate a quarter of a grain

with atropine. Highest temperature 100° F.

May 31st.—Highest temperature, 99° F. Symptomatic treatment.

June 1st.—A. m. temperature, 100° F.; p. m., 102° F. Tympanites disappeared. To continue rectal feeding, catheterization and symptomatic treatment. Expecterated some coagulated blood. Did not complain of pain in any part of his body.

June 2nd.—A. m., temperature, 100° F.; p. m., 102° F. In addition to frequent nutrient enemata of predigested food given this day, egg-nog in small quantity by the mouth was retained without causing distress of any sort. He continued to expectorate small quantities of dark coagulated blood.

June 3rd.—Pus formation in bladder was noticed discharging through urethra; no history whatever of venereal disease. Irrigated the bladder with warm boric solution. Bed sores appeared over the sacrum and on the left heel. Had his position in bed changed as much as practicable, avoiding possibility of internal hæmorrhage and gastric distress.

June 4th.—A. m., temperature, 100° F.; p. m., 102° F. Pulse fuller and stronger; had never lost its marked regularity.

June 5th.—A. m., temperature, 100.4° F.; p. m., 102.3° F. Small doses of salol 0.3 gramme t. i. d. Retained with ease and enjoyment egg-nog by the mouth, in larger quantity than heretofore. Chicken broth administered by mouth with good results.

June 6th.—Paraplegia slowly ascending, no sensation to touch or pain below sternum and below the point of exit of the bullet in his back. As much nutriment as possible given at frequent intervals by mouth. He craved and enjoyed semisolid food.

Up to June 15th, when his afternoon temperature ran up to 104.1° F., there developed no new symptoms. His temperature during this interval ranged from 100° F. to 103° F.; bladder symptoms remained, although discharge of pus was very slight. Given small doses of potassium iodide, in the hope of causing absorption of spinal congestion. The three following days there was a fall in his body temperature, and a general improvement. June 19th, he had a very restless night, throwing his arms about and complaining of his condition. A constant watch had been kept over him to prevent his Chinese friends from supplying their own means of treatment, as well as to be ever ready to attend to his wants. There was no more pus formation in bladder. Decubitus increased in severity, notwithstanding every precaution to relieve undue pressure. He displayed obstinacy to treatment, more than likely stimulated by the conversation of his Chinese friends.

June 20th.—Heart's action slightly depressed. Tincture of digitalis, five minims by the mouth every four hours. Next day condition remained about the same. Had a mild chill. Temperature, 100.2° F., a. m.; 101.6° F. p. m. Hot water bottles applied under blankets. Hot drinks *ad libitum*. No particular change in his condition for the next five days, save that the decubitus increased in spite of all effort to avoid pressure. His temperature ranged about 100° F. The night of June 27th he had a severe chill with cardiac depression. All drugs except cardiac stimulants were discontinued from June 29th on; the patient became weaker, a gradual

decline set in, and his mind, which up to now had been clear, began to show symptoms of a delusionary character. He refused his food, and expressed a desire to make away with his life. Digitalis, strychnine, and brandy administered, and as much concentrated food as could be retained.

July 3rd.—A large slough was removed from the bed sore over the sacrum, exposing that bone in part, and most of the coccyx. Pulse and respiration became weaker, and the patient did not respond to stimulation readily. Temperature, a. m., 98.6° F.; p. m. 102° F. Thorough cleansing of bed sores with hydrogen dioxide and antiseptic protection. Patient gradually grew worse, lost consciousness on the morning of July 6th, and at 6.40 o'clock p. m. he died. The following morning a post mortem examination was held. The governor-general of Basilan called in a civilian physician to take notes for the legal proceedings against the Filipino "mess attendant."

The substance of these notes is as follows:

Emaciation general, small unhealed abrasions on the lower right side of abdomen and right thigh. Bed sores on both heels, right and left ankles, and over sacrum, the latter about six inches in diameter. Appearance of wound of entrance: small raised scar, one inch to left and half an inch below internal end of left clavicle. Pleura beneath wound of entrance adherent to apex of left lung. Left lung generally congested. Right lung normal. Some pus formation in lower end of œsophagus which could not be absolutely or definitely located, owing to maceration and adhesion of tissues in that region. Appearance of wound of exit: small round scar, half an inch to left of spinous process and between fourth and fifth dorsal vertebræ. Membranes of spinal cord congested to a marked degree. The cord itself congested to a less degree. There is no evidence of any injury to the bony structure of the vertebral column. Other than the facts recorded: upon examination of remaining viscera, there was no evidence of any tearing, or inflammatory process caused by the passage of the ball in its course.

RADIOTHERAPY IN ENTERITIS AND COLITIS.

By SINCLAIR TOUSEY, A. M., M. D.,

NEW YORK,

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This paragraph must be considered more as a suggestion than as a report. I have begun this line of treatment in cases in which there is a chronic condition of pain, or discomfort with frequent discharges of mucus, and occasional discharges of blood or of false membrane, and which have failed to yield to the use of intestinal antiseptics, such as naphthalin given by the mouth, and to the use of other antiseptics given by enteroclysis.

The mucus from these cases is often stringy and

looks like some new and strange kind of worm, and on microscopical examination is found to consist of mucin, many desquamated epithelial cells, and many of the *Bacilli coli communes*. In the two or three cases in which expert examination has been made for me, tubercle bacilli were found to be absent.

The way in which I have made the applications has been by having the patient lying flat upon an examining table, with the surface of the abdomen exposed, and with an x ray tube supported about eight inches from the surface and the light directed principally toward the region where the pain is felt. At this distance the exposure may last from three to five minutes for the first treatment, and may be gradually increased in duration. This is with a large tube, 40 centimetres, and taking care not to allow the platinum disk from which the rays are reflected to become red hot. To prevent this, it will be necessary to turn off the current several times during a long exposure; and the reason for regulating it in this way is because of the danger of an x ray burn from a tube that is too hot. The absence of any undesirable effect in about three hundred applications of the x ray for therapeutic purposes and in fluoroscopic and skiagraphic examinations, has been attributable to attention to the different considerations in each case. The size of the tube had to be taken into account; those at the clinic being of twenty-five centimetres, *i. e.*, intended to be used with a strength of current which will not give a spark over a greater distance than twenty-five centimetres; while those at the office are of forty centimetres. We must consider the character of the parts exposed to the light, and especially the degree of vacuum in the tube—the greater the rarefaction the greater is the penetrating power and the greater is the effect on deep structures. The duration and frequency of the application must be most carefully considered. The parts which it is not desired to influence should always be protected by sheet-lead or something similarly opaque to the x ray.

In addition to exposure to the x ray proper, another application has been made by means of a glass vacuum tube connected by a thoroughly insulated wire with one pole of the great Ruhmkorff coil which forms part of the x ray outfit. When the current is turned on, such a tube becomes filled with waves of light passing from the rheophore toward the bulbous extremity, which is in contact with the skin, and the patient receives, with hardly any sensation, a wave like the discharge of very high voltage and considerable ampèrage. The connection is with only one pole of the coil and the tube is provided with an insulated handle for the use of the

operator. If separated from the surface, a shower of sparks passes from the vacuum-tube to the skin. This does not appear to produce as good results as the direct contact and is more or less disagreeable, depending upon the sensitiveness of the surface. The direct application is almost devoid of sensation, but the patient can give other persons quite a spark by touching them while the application is being made. I have the patient more or less completely insulated, but do not know whether this is of any special importance or not.

The few cases already under treatment show the improvement which may naturally be expected from a novelty. My expectation of lasting benefit is not so much on account of the well-known germicidal action of the x ray, as on account of the stimulative and alterative effect of the combined applications of the x ray and the high tension discharge from the vacuum tube.

103 WEST SEVENTY-SIXTH STREET.

SOME OBSERVATIONS ON STACKE'S OPERATION.*

By THOMAS R. POOLEY, M. D.,
NEW YORK.

The operation of tympanomastoid exenteration, which is now generally known as Stacke's, or the radical operation, is an evisceration of the interior of the bone by making the mastoid, tympanum, epitympanum, and meatus one large cavity with perfectly smooth healthy walls, by removing the external cortex of the mastoid, its entire cancellated structure, the posterior osseous meatus wall, the tympanic membrane, the malleus, incus, and outer wall of the epitympanum.

It is not the intention of this paper to describe the technique of operation by which this is accomplished, since this is, no doubt, familiar to you all. I will only say that there are two methods, one advocated by Schwartze, Zaufal, and their followers; the second that of Stacke. In the first, you open from behind forward, while that of Stacke opens from in front backward. In the former, that is to say, the Schwartze, you extirpate the posterior, superior membranous linings of the osseous meatus. The latter saves them to make a flap for covering exposed bone. For this latter procedure there have been many methods suggested. It is not my purpose, however, to describe them, since all have but one end in view, *viz.*, the covering of the bare bone and the causing of epidermization of the cavity which is left by the operation.

This operation has been performed, not only in

* Read before the American Otological Society, July 15, 1902.

chronic otorrhœas, but also in the surgery of brain disease. In my remarks, however, I will confine myself particularly to its use in the first named. In my judgment the application of this operative procedure to the cure of chronic otorrhœa is becoming too universal and indiscriminate. It is for the purpose, then, of sustaining this argument that this paper has been written.

I shall first point out what I consider the dangers of the operation and the objections to its performance except in carefully selected cases. These dangers and objections are by no means few, and may be enumerated as follows:

1. The wounding of the facial nerve, dura, lateral sinus and the semicircular canals.

(a) The facial nerve may be wounded on account of its anomalous position, carelessness in chiseling too near the floor of the external canal, or the too tight packing of the wound.

(b) In using the middle ear curette it must not be forgotten that the tympanic walls are often very thin from necrosis and the internal carotid artery, as well as internal jugular vein, are imperfectly protected and liable to be penetrated.

(c) In carrying the operative procedure upward and backward the semicircular canals must be avoided.

2. In contemplating this operation it must be taken into account that a radical cure is by no means always obtained by one operation. A second operation, or even a third or fourth, may be necessary, in order to obtain a complete cure of the otorrhœa.

3. The length of time required for the healing process may vary from three to six months. And lastly,

4. The possibility of premanent impairment of hearing in patients who, before the operation, could hear fairly well.

If, then, we consider the dangers enumerated, the uncertainty of a radical cure after one operation, and the long duration of the after treatment, it seems to me that every case of chronic otorrhœa should be most carefully studied before being subjected to such a severe operative procedure. And while I do not wish to detract from the merits of the operation in well selected cases, I do desire to express the view that all cases of chronic otorrhœa should not be indiscriminately so treated.

I know that the present trend of opinion is to discountenance altogether a protracted attempt to cure otorrhœa by medication, removal of polypi, and intratympanic curetting. Nevertheless I venture to say that all these methods often meet with success, thus avoiding the more radical procedure.

Many cases of chronic suppuration of the middle ear can be healed by vigorous antiseptic treatment

by removing granulations, cholesteatoma in the cavity of the tympanum, and the attic by partially removing the attic wall, and such, I think, must have been the experience of all who have strenuously followed these methods; therefore, while I am an advocate of the radical operation in suitable cases, I agree with Politzer that it is not justifiable when performed for the mere purpose of arresting a discharge, at least, until every effort to stop it by other means has proved unavailable.

Those who are the strong partisans of the operation say that it is not necessarily dangerous in the hands of a skilled operator; nevertheless it is still a serious one, and when we reflect that all operators are not skilled, that we have all kinds, good, bad, and indifferent, it must be conceded that the dangers of operation should not be too lightly taken into account.

I may briefly summarize my view as to when the operation should be performed.

THE OBJECTIVE INDICATIONS

may be grouped under two forms: any case of re-infection or of a rapid extension of a chronic otitic process, or whenever a grave complication is threatened; the indication is then for immediate operation.

The indication is not immediate when the patient suffers little or no pain and there is no striking symptom in the mastoid, but even here the indication may be to operate if the osseous lesion is extensive.

THE SUBJECTIVE SYMPTOMS

are persistent and recurrent pain in the ear or mastoid process, with persistent and fixed pain in the parietal or occipital region, increased by percussion, which frequently points to temporal or cerebellar abscess.

Vertigo, either permanent or intermittent attacks, which may be due to erosion of the external semicircular canals.

Well marked brain symptoms, such as headache, heaviness, pressure, torpor, loss of consciousness, etc.

Leucocytosis in Perityphlitis.—Dr. H. Goetjes (*Manchester medicinische Wochenschrift*, April 28th) says that with a persistent high leucocytosis (20,000 to 30,000) a purulent perityphlitis is always to be thought of if no other complications are present which can evoke a leucocytosis. If a perityphlitis runs a very severe clinical course, with a normal or slightly increased number of leucocytes, it is a bad symptom. These statements hold true only for those cases in which a circumscribed abscess is present; in a diffuse peritonitis the leucocyte count loses its exactness with this exception that a high count offers a favorable prognosis.

Correspondence.

LETTER FROM PARIS.

A Physician Fined for an Act of Kindness.—The Goodspeed Rays.—The Topical Use of Dried Antitetanic Serum.—Lumbar Puncture for Aural Affections.—Doctors and the Newspapers.—The Paris-Madrid Automobile Race.—The Hospitals.—Seaside Sanatoria for Children.—Typhoid Fever and Infected Bedding.—Dr. Laborde's Funeral.—The Cultivation of Truffles.—The Chartreuse Industry.—Russian Feeling against Foreigners.—The French Student after Hours.

PARIS, June 20, 1903.

Dr. Gillet, of the Department of the Meuse, an estimable gentleman, who, in addition to being a physician, has been also a Deputy and is at present the Conseiller Général of his canton, ventured, not long ago, to take a train from Beuzée to Verdun. While he was *en route* a postal employee was taken suddenly ill in the mail carriage. The good doctor was called upon and, as any good doctor should do—whether in France or Timbuctoo—he immediately entered the mail carriage and gave relief to the sufferer. To enter a mail carriage under any circumstances is, however, illegal. Now, thanks to the Code Napoléon, thanks also to what Charles Laurent, in the *Matin*, calls the “intellectual incoherence” of a French tribunal, Dr. Gillet has been sentenced to pay a fine of sixteen francs for having infringed upon the laws and regulations which govern the proper conduct of railroads.

There seems to be some incredulity here in Paris as to the actual results of the investigations of Professor Arthur W. Goodspeed. I refer to the reported discovery of a hitherto unknown ray which, emanating from the human body, is strong enough to make a photograph. Dr. G. le Bon asserts that so far as his experiments went, no such results were obtained. Colonel de Rochas, his fellow worker, did for a moment believe in the “possibility” of luminous radiations emitted by the human body. A hand placed upon a sensitive plate after a pose of a certain duration seemed to have influenced the sensitive plate, and here and there shapeless marks were visible on it; but, it is necessary to add, the same results were obtained by means of a glove filled with sand and heated to the same temperature as the body. It could therefore only be inferred from these experiments that the marks on the plate were caused solely by heat.

Everyone knows that it is the soiling of wounds by earth or dirt that engenders tetanus. Hitherto antitetanic serum has served as the antidote. Now M. Calmette, director of the Pasteur Institute at

Lille, in a note presented to the Académie des Sciences by Dr. Roux, proposes to replace the injection procedure by another, which, he asserts, gives better results, provided it is applied within seven hours of the contamination. This procedure consists simply in dusting the wound with desiccated antitetanic serum. Such an innovation would certainly prove of value in the colonies—notably in Indo-China—where one fifth of the new-born die from tetanus contracted through the umbilicus, by reason of the primitive surroundings amid which accouchements are conducted in that country.

Dr. Babinski has received some attention in the newspapers of late by reason of his resort to lumbar puncture, with the abstraction of a small quantity of cerebrospinal fluid, for the relief of certain affections of the ears accompanied by tinnitus and vertigo. Cases are reported in which the procedure has worked much good.

It appears to me, though I hasten to say that my view may be superficial, that the French physician is less unwilling to be advertised than his American brother, and certain doings of particular individuals which have come to my ears have astonished me very much. The fact that the offenders are prominent makes their offenses only more surprising. The French newspaper, however, is an admirable institution, and though the daily newspaper which has the biggest circulation in the world is published here in Paris, the fact is not blazoned on the walls, screamed from the housetops, or printed in scare heads on the front page. The papers lend themselves to the advertising of the enterprising French doctor simply because the doctor takes care to make himself and his doings as “newsy” as possible. The real good that the French paper does in things medical is by treating of such subjects in a sane manner and by lending the talents of their able writers to the sanitary education of the “masses.” The result of such a circumstance may be seen in the attitude of the general public to matters of public health and cleanliness, and in the admirable sanitary sense that they display in their endeavor to keep out of the “rotten” French hospitals.

The Paris-Madrid automobile race was not without its interest to the surgeon. I witnessed it, and I should not be surprised if some time in the future there should be created a new department of medicine—automobile medicine. A well known English doctor, an enthusiastic automobilist with an energy that would make a whiskey drummer famous, took his automobile, stocked it with bandages and splints and medicines, and from Versailles to Chartres acted the good Samaritan. His stock was exhausted at the end of the day.

In one ward of the Hôpital Tenon there were

upon a recent inspection forty-five patients and twenty-six beds! The exclamation mark is for the benefit of American readers, for in Paris any fact which seems to indicate that the average French hospital is a blot on civilization has ceased to be remarkable. The only thing that the hospitals have to recommend them is their picturesque exterior. The Hôpital Lannec, for instance, is covered with turrets and towers and peep holes for arquebuses; the bustle of innumerable nurses and of an omnium gatherum of unnecessary people gives it a human interest. But when a fine young chap from Cornell or the "P. and S." or Johns Hopkins visits the average hospital here, his first impulse is to gasp. It is not necessary to enter it to condemn it; one has but to look at the windows to note the absence of light, and to count the nurses and attendants who come to them—for breathing spells! In the military hospital at Rouen there are at present ninety-three cases of typhoid fever, and forty-four suspicious cases. There are in the city itself one hundred and twenty-six cases of typhoid, of which fifty are in hospitals. Imagine a sick man cursed with the necessity of receiving care in such hospitals. The first thing an Englishman or an American thinks of when taken ill in France is to implore his friends not to allow him to be taken to a French hospital.

There is an association here—l'Œuvre des Hôpitaux Marins—which endeavors to secure upon the coasts of France establishments for the treatment of scrofulous or tuberculous children of both sexes. The utility of this work has already been recognized by a decree of September 9, 1890, and from its own resources the association has already created the maritime sanatoria of Banyuls-sur-Mer, in the Pyrénées orientales, and of Saint-Trojan in the Ile d'Oléron. In each establishment there are two hundred beds, and treatment is given to children of either sex between the ages of four and fourteen. The patients are received from public institutions and private families, the charge to the latter being but forty cents a day, to the former thirty-four cents. Strange to say, however, many beds are unoccupied, despite the fact that thousands of children are encumbering the hospitals in the cities. Whether this is due to indifference, negligence, or ignorance I know not, but I do know that similar institutions in the United States do not lack for patrons.

The government is continually in trouble on account of the prevalence of typhoid among the soldiers, and among the well informed the opinion is general that the situation is much worse than the official reports reveal. The English war office is also in the throes of a typhoid scandal. Twenty

thousand blankets had been collected in Cape Town from various up-country depots and hospitals, and, being infected, should have been destroyed. They were sold, however, and a series of severe cases of typhoid from many sections, but particularly on the hospital ship *Cornwall*, were traced directly to the blankets. A list of the towns to which such blankets have been shipped includes almost every important town in England. In the London *Truth* for May 18th there is acrimonious comment on the astonishing and disgusting fact that, in Bengal, infected clothing and blankets, after being returned to the commissariat stores, have been reissued to the government native bakeries, the clothing to be worn by the bakers, the blankets to be used for covering up dough prior to baking it. This does not refer to an isolated occurrence, but to a recognized practice of at least two years' standing.

I should have mentioned in a previous letter that at the funeral of Dr. Laborde, professor of the Faculté de médecine, M. Lanceraux, president, and M. Tillaux, vice-president, of the Academy of Medicine, M. Bloch, president of the Société biologique, M. D'Ault du Mesnil, president of the École anthropologique, and M. Pephau, director of the Quinze Vingts, were the pall bearers. An equally distinguished gathering followed the remains to the cemetery of Père Lachaise, where the incineration took place.

The gastronomic world in Paris is at present in throes over truffles. It seems that these expensive luxuries, which contribute so much to the refinement of cooking, are by no means regular in their growth. A truffle bed may suddenly become quite sterile without any adequate reason, and in an equally feminine manner may again become productive. According to Dr. Chatin, there are fifty-three departments in France where truffles are found, though Périgord has by far the best reputation. M. Émile Boulanger has investigated the subject. He effects the germination of the ascospore by plunging, with aseptic precautions, small fragments of it into tubes of sterilized water. By this means a filament is obtained which is either ashy gray, or white, according to the species of truffle. This filament is analogous to mushroom spawn and becomes covered with eonides—the seed from which M. Boulanger obtains his truffles. With the seed at hand the soil must be carefully prepared, and carrots impregnated with the spawn and covered with manure are put in little holes and covered with soil. A mixture of sulphate of potassium and superphosphate of calcium is then sprinkled over the ground. The importance of these details may be judged from the fact that in the proper cooking of thirty turkeys for the table of Baron Rothschild, eighteen hundred

francs' worth of truffles were used.

The monks of Chartreuse, who have been driven out of France and who possessed a close monopoly for the manufacture of their famous liqueur, are the indirect authors of a report to the effect that the French authorities were willing, upon the receipt of 800,000 francs, to permit them to continue their industry in peace. They refused to give the bribe and—they have broken up their home. There is every probability that the story is a true one.

Travelers returning from the recent celebrations in St. Petersburg have expressed much surprise at the apathy of the lower orders to the fête, because, mainly, of their hostility to the presence of foreigners—a fact that recalls to mind that during the fatal cholera periods the peasants believed that it was the doctors who brought the illness with them, and then burnt the people alive because they ordered lime to be thrown over the bodies to prevent infection from spreading; and they killed the doctors in numbers on that supposition, their cry being "Death to the doctors."

The Rue de l'École de Médecine, upon which is the famous school, runs directly into the Rue des Écoles, upon which is the Sorbonne. But the Taverne Lorraine, opposite the Sorbonne, is the objective point for the medical student after nightfall. He goes there to dance the cake walk and to amuse himself, to patronize the American bar, which he does by making himself immensely uncomfortable on a bookkeeper's stool while he drinks. Such a thing as standing up to your drink is unknown here, and is utterly impossible to a Frenchman. The student is always a student, and while at play he is a mighty "fresh" student, with a mild inanity in his methods that is incomprehensible to the stranger. But the French medical student as a subject is inexhaustible, and should not be referred to except in a letter treating especially of the subject.

Therapeutical Notes.

For Coryza.—The *Revue médicale du Canada* for May 20th quotes the following from the *Lyon médical*: In order to disperse the headache and sensation of nasal obstruction which accompanies acute coryza, the following preparation may, according to Dr. Pognat, of Geneva, be advantageously substituted for simple cocaine solution:

R Cocaine hydrochloride.....5 grammes (75 grains);
Menthol.....5 grammes (75 grains);
Petrolatum.....100 grammes (3½ ounces).
M.

The reduction of congestion effected by atomization of this mixture into the anterior nares, which should be repeated every three hours, is said to be

more marked and durable than that of plain cocaine solutions. [The dose seems to be quite large for repeated use.]

A Dressing for Burns.—*Nouveaux remèdes* for May 24th ascribes the following to Tichy:

Apply during twenty-six hours oil compresses so as not to prevent the formation of blisters. Open these aseptically. Then apply compresses soaked in the following:

R Calcium chloride.....from 2.5 to 5 parts;
Dissolve in
Distilled water.....990 parts;
Filter and add
Camphorated alcohol.....5 parts.
M.

Moisten the compresses afresh as soon as they begin to dry. After twenty-four hours renew the dressing and remove the dead cuticle. The compresses are to be changed at longer and longer intervals, ceasing altogether when the secretion is dried up.

A Topical Application for Uterine Cancer.—*Nouveaux remèdes* for May 24th ascribes the following to Sutaud:

R Iodoform.....18 grammes (270 grains);
Belloc's carbon.....15 grammes (225 grains);
Quinine sulphate.....3 grammes (45 grains);
Essence of mint.....40 drops.
M.

For Pruriginous Dermatoses.—*Nouveaux remèdes* for May 24th attributes the following to Rizat:

R Sodium arsenate.....0.001 gramme ($\frac{1}{1000}$ grain);
Quinine valerianate.....0.01 gramme ($\frac{1}{100}$ grain);
Extract of valerian..... } of each 0.05 gramme
Extract of saponaria..... } ($\frac{3}{4}$ grain).
M. For one pill. From two to ten daily.

For the Pain of Cancer of the Stomach.—The *Revue médicale du Canada* for May 20th ascribes the following to A. Robin:

R Cocaine hydrochloride.....0.05 gramme ($\frac{3}{4}$ grain);
Codeine.....0.05 gramme ($\frac{3}{4}$ grain);
Lime water.....150 grammes (5 ounces).
M. A teaspoonful to be taken every hour until relief is obtained.

Treatment for "La Grippe."—Combemale (*Annales de la polyclinique de Paris*) gives the following internally in all his cases of "la grippe."

R Salol..... } of each 25 centigrammes
Benzonaphthol..... } ($\frac{3}{4}$ grains).
M. One capsule, four times a day.

He uses the following as a gargle and nose spray:

R Thymol.....25 centigrammes ($\frac{3}{4}$ grains);
Carbolic acid.....1 gramme (15 grains);
Boric acid.....20 grammes (5 drachms);
Water.....1 litre (1 quart).
M. Use frequently.

For Syphilitic Alopecia.—Besnil (*Journal médical de Bruxelles*) advises cutting the hair short and the use twice a week of the following:

- R Pure oil of cade.....3 grammes (45 grains);
Precipitated sulphur.....1 gramme (15 grains);
Resorcin.....30 centigrammes (4½ grains);
Salicylic acid.....15 centigrammes (2¼ grains);
Benzoinated lard.....30 grammes (1 ounce).
M. For an ointment.

The morning after using the above, the scalp should be washed with hot water and ichthyol soap.

For Intertrigo.—Lutaud (*Nord médical*) gives the following lotion as valuable in eczema of the genitals:

- R Potassium chlorate.....1½ grammes (23 grains);
Wine of opium.....3 grammes (45 minims);
Water.....250 grammes (8 ounces).
M. For a lotion.

Ambulatory Treatment of Varicose Ulcers.—X. Maury, of Havre (*Couille médical*) states that patients with large varicose ulcers can resume work in a fortnight if the affected leg is firmly swathed in starched bandages dipped in the following solution:

- R Zinc oxide.....40 grammes (10 drachms);
White gelatin.....50 grammes (12½ drachms);
Glycerin.....100 grammes (3 ounces);
Boiled water.....180 grammes (6 ounces).
M. For preparing bandages.

Before applying the above, the leg should be washed for five minutes with soap and water, and the ulcer cleansed with formol solution.

Treatment of Mild Facial Acne.—Leredde (*Médecine moderne*) recommends for the facial acne of young women the application of hot water by means of absorbent cotton, followed by the use of a lotion and a cream.

- R Mercury bichloride.1 to 2 grammes (15 to 30 grains);
Eau de cologne.....1,000 grammes (2 pints).
M. For a lotion.

- R Anhydrous lanolin.....10 grammes (150 grains);
Rose water.....5 grammes (75 grains);
Water.....20 grammes (5 drachms).
M. For a cream.

Sometimes touching the spots with an aqueous solution of ichthyol, 5 parts in 100, will prove efficacious. This should be preceded by washing with alcohol to remove grease.

For Anorexia.—Lyon and Loiseau (*Progrès médical*, June 6, 1903) advise the following mixtures for loss of appetite:

- R Sodium vanadate..... } of each 5 decigrammes
Sodium arsenate..... } (7½ grains);
Sodium glycerophosphate.10 grammes (2½ drachms);
Garus's elixir.....300 grammes (10 ounces).
M. Two dessertspoonfuls daily.
- R Sodium persulphate.....2 grammes (30 grains);
Distilled water.....300 grammes (10 ounces).
M. A tablespoonful half an hour before each meal.

For Phtheiriasis.—The *Revue médicale du Canada*, quoting *Annales de thérapeutique*, gives the following for the *Pediculus vestimentorum*:

- R Lard.....30 grammes (1 ounce);
White precipitate.....2 grammes (30 grains);
B naphthol.....2 grammes (30 grains).
M.

For *Pediculus pubis*, to replace blue ointment:

- R Petroleum..... }
Peru balsam..... }equal parts.
Laurel oil..... }
M.

For Phtheiriasis ciliarum, epilation and the following:

- R Mercuric oxide.....5 centigrammes (¾ grain);
Vaseline.....5 grammes (75 grains).
M.

The Hypodermic Administration of Mercury.—G. Lemoine (*Médications usuelles*) gives four formulæ for the hypodermic use of mercury.

- R Mercury benzoate....30 centigrammes (4½ grains);
Sodium chloride....25 centigrammes (3¾ grains);
Cocaine benzoate....20 centigrammes (3 grains);
Distilled water.....30 grammes (1 ounce).
M. Inject 2 to 4 c.c. (30 to 60 minims) daily.

- R Mercury bichloride...30 centigrammes (4½ grains);
Cocaine hydrochloride... } of each 10 centigrammes
Sodium chloride..... } (1½ grains);
Distilled water.....30 grammes (1 ounce).
M. Seven to fifteen minims daily.

- R Mercury biniodide.....5 centigrammes (¾ grain);
Neutral atropine sulphate.2 milligrammes (3/100 grain);
Distilled water.....20 grammes (5 drachms).
M. Four to seven minims daily.

- R Mercury peptonate...30 centigrammes (2¼ grains);
Distilled water.....30 grammes (1 ounce).
M. Seven to fifteen minims daily.

The Antisepsis of the Mouth.—Miller, quoted by *Revue médicale du Canada*, gives the following as an excellent buccal antiseptic:

- R Thymic acid.....25 centigrammes (3¾ grains);
Benzoic acid.....3 grammes (45 grains);
Essence of peppermint.75 centigrammes (10 minims);
Tincture of eucalyptus.15 grammes (4½ drachms);
Alcohol.....100 grammes (3 ounces).
M. Put sufficient in a glass of water to render latter milky.

Suarez de Mendoza, quoted in the same journal, advises:

- R Tannin.....12 grammes (3 drachms);
Menthol.....8 grammes (2 drachms);
Thymol.....1 gramme (15 grains);
Tincture of benzoin.....6 grammes (90 minims);
Alcohol.....100 grammes (3 ounces).
M. Ten drops in a half-glassful of tepid water.

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NEW YORK, SATURDAY, JULY 11, 1903.

NOTICE TO SUBSCRIBERS.

Every person who, at the date of the consolidation of the New York Medical Journal and the Philadelphia Medical Journal, was a subscriber to either of those journals, will receive the New York Medical Journal and Philadelphia Medical Journal, Consolidated, up to the period at which his subscription to either journal expires. Every person who, at the date of the consolidation, was a subscriber to BOTH the New York Medical Journal and the Philadelphia Medical Journal, will receive the consolidated journal to the date of expiration of his subscription for the New York Medical Journal; after which period his subscription to the consolidated journal will be extended without further charge for a period equivalent to the unexpired portion of his subscription to the Philadelphia Medical Journal.

PULMONARY EMBOLISM AND APPENDICULAR DISEASE.

There are few morbid conditions fraught with greater suffering or with greater immediate danger than pulmonary embolism. Its causes are various, but it is a not infrequent sequel of certain surgical procedures—or, to speak more strictly perhaps, of the pathological states for remedying which those procedures are resorted to. This form of embolism seems to be a rather common consequence of disease of the vermiform appendix, if we may judge by a discussion which lately took place in the Paris Society of Surgery (*Presse médicale*, May 23rd).

M. Jalaguier reported three cases observed in quick succession, within a period of a fortnight. Their occurrence *coup sur coup*, as the report has it, is, of course, only another exemplification of the curious fact that unusual occurrences in medicine and surgery have a strange disposition to manifest themselves in flocks, as we might say. Evidently it is not with the operation itself that the embolism is intimately connected, but rather with the condition calling for intervention, for in two of M. Jalaguier's cases the operation consisted only in opening purulent collections surrounding the appendix or situated beneath the liver. Two of the patients were getting along tolerably well when suddenly, after a number of days, the embolism occurred. Of these two, one died and the other recovered. In the third case the operation had been undertaken in an interval between attacks—*à froid*, as the French say. Its consequences were of the most benign until the twelfth day, when pulmonary embolism occurred. In this instance the patient recovered.

In the discussion that followed the recital of M. Jalaguier's cases M. Quénu said that he had never observed pulmonary embolism either in the course of appendicular inflammation or after an operation for that condition. To explain its occurrence, he remarked, one must assume that, since the appendicular veins were exclusively tributary to the portal vein, there was a general infection of the venous system. He had the records of two cases of thrombosis of the left femoral vein, one occurring in the course of an appendicular inflammation, and the other after removal of the appendix.

It is remarkable that several other speakers reported cases of thrombosis of the left femoral vein in connection with appendicular disease; some of them had observed pulmonary embolism, but others had not. M. Brun had had a case in which a child attacked with appendicular inflammation had died with convulsions and grave respiratory symptoms that might readily have suggested the occurrence of pulmonary embolism; nevertheless, he doubted if in that and the other cases reported that condition had really been present. He, too, admitted the frequency of femoral phlebitis in connection with appendicular disease; he personally had observed it three times, and always on the left side. He regarded removal of the appendix as an operation to

be undertaken for the cure of this phlebitis. Left femoral thrombosis may yet, we should say, come to be regarded as of diagnostic significance in obscure cases in which only the possibility of appendicular inflammation can be affirmed; the connection between the two conditions seems to be worthy of further investigation.

FEEDING WITH SUGAR IN FEVERS.

He who would have it said of him that he "fed fevers" must necessarily, if the remark is to convey a high degree of commendation, be interested in forms of feeding most likely to prove easy for the digestive and assimilative functions to deal with. Not that such precision is absolutely necessary, for we have known a feverish patient condemned to "slops" by his physician to do remarkably well on a steady diet of green turtle soup and terrapin "washed down" with Clos de Vougeot, and that, too, though the cause of his fever was inflammation due to disease of the vermiform appendix. The patient in this instance was himself a physician and took the responsibility into his own hands. Of course he had to obtain his supplies surreptitiously, with the aid of certain sympathetic members of his family, for he knew that it would never do to disobey the doctor's orders openly. We should not like to argue from this case that an epicurean diet was "good for" appendicular disease, but we do feel like affirming, as Stokes did, that a febrile patient's nutrition must be kept up.

Searching for simpler means of sustaining the patient's nutrition, M. Ragot (*Lyon médical*, December 5, 1902; January 25, 1903) has hit upon sugar, a substance already found by the German military surgeons to have a decided effect in overcoming fatigue. M. Ragot founds his conclusions both upon experiments on animals and upon observations on the human subject. Two cases only figure in his clinical reports, both in soldiers, one of whom had pleuropneumonia with typhoid fever, and the other bronchopneumonia. Minute tabulations of urinary examinations and elaborate mathematical calculations from the facts observed seem to establish, so far as these two cases go, M. Ragot's conclusions, namely, that sugar reduces the hypertoxicity of the urine and lessens the disassimilation of al-

buminoid material. Cryoscopy shows that it diminishes the proportion of extractive matter in the urine. The author found that each of the two patients had no difficulty in absorbing daily a little more than three ounces of sugar dissolved in five times its weight of distilled water. It will be seen that he alleges for the feeding with sugar, not only the more or less complete prevention of autophagy, but also a reduction of the amount of toxins formed. These surely are effects highly conducive to satisfactory recovery in cases of severe febrile diseases.

PROFESSOR LORENZ.

We may well congratulate ourselves on the benefits which will follow the visits to this country of Dr. Lorenz, although the full number of cases of the affection which may be called his specialty is comparatively small, and although the disability attending it is painless and not of a kind to interfere with hard labor throughout a long life. The wabbling gait of bilateral congenital dislocation of the hip must, however, be admitted to be a serious blemish, and in most cases entirely insusceptible of correction by any but the medical method which he has so brilliantly and successfully perfected. He evidently has appreciated at its full value the powerful blows directed by the head of the femur at every footfall on the place where the normal acetabulum should be found, and this blow, nearly equaling the weight of the body, he changes from a glancing to a point blank direction by a position of forced extreme femoral abduction. There is a fascinating military precision in his plan of attack, and that it does not succeed in every case is regrettable, but not to be wondered at, in view of the manifest inevitable difficulties attending the details.

A unilateral dislocation produces by far more real lameness than a bilateral one. In the latter there is an equal distribution of defective form and motion between the two sides of the body, resulting in a rolling gait which reminds one irresistably of Jack ashore. But where only one side is affected, the shortened leg and uneven motion produce real and seriously disfiguring lameness, which, however, may be almost entirely removed by the equine position of the foot and a laborious acquisition of sym-

metrical or normally rhythmic locomotion. These methods, applicable and effective in many other affections as well, require the outlay of a vast amount of time and skilled attention which our special institutions, limited in number and crowded with applicants for relief as they are, are quite unable to supply. Here are sufficient grounds for the general congratulation which has found not too extravagant expression in the newspapers. The spontaneous welcome which has been given to Lorenz as the bearer of good tidings, is leading to a more bountiful setting apart of means for the reinforcement of those charities which seek to better the condition of the adolescent cripple. In this connection one is reminded of the open minds and kind hearts found in England and on the Continent a few years ago by the elder Dr. Sayre, and before that by Dr. J. Marion Sims.

A. B. JUDSON.

MICHIGAN LEGISLATION FOR THE SUPPRESSION OF INDECENT ADVERTISEMENTS.

Recent legislation in the State of Michigan for the suppression of "nasty" quack advertisements in the newspapers has been powerfully aided by the medical profession, but still more powerfully, we are informed, by one of the Detroit newspapers, the *Journal*, to which, therefore, the thanks of both the profession and the community are due. It is to be hoped that the example set by Michigan will be followed in other States.

THE VOLATILE FATTY ACIDS IN GASTRIC DIAGNOSIS.

Assuredly we have reached an era of minuteness in the diagnosis of abnormalities of the stomach. Rosenfeld (*Deutsche medicinische Wochenschrift*, 1903. No. 13; *Zentralblatt für innere Medizin*, June 20th) finds that the amount of the volatile fatty acids excreted in the urine is reduced in benign pyloric stenosis and gastroparesis, but increased in ulcer of the stomach and gastrectasis, also in cancerous affections of the organ.

HEMIMELIA AND CONGENITAL AMPUTATION.

Mouchotte (*Bulletins et mémoires de la Société anatomique de Paris*, 1903, No. 8; *Zentralblatt für chirurgie*, June 20th) points out the possibility of distinguishing between these two abnormalities in the fetus in utero by means of a Röntgen ray examination. We are at a loss to see, however, what is to be gained by such a distinction.

News Items.

Society Meetings for the Coming Week:

MONDAY, July 13.—New York Academy of Medicine (Section in General Surgery); New York Academy of Sciences (Section in Chemistry and Technology); New York Medico-historical Society (private); New York Ophthalmological Society (private); Gynecological Society of Boston; Burlington, Vt., Medical and Surgical Club; Norwalk, Conn., Medical Society (private); Medical Association of the Greater City of New York; Society of Medical Jurisprudence.

TUESDAY, July 14.—New York Academy of Medicine (Section in Genitourinary Surgery); Medical Society of the County of Rensselaer, N. Y.; Newark, N. J., Medical Association (private); Trenton, N. J., Medical Association; Clinical Society of the Elizabeth, N. J., General Hospital and Dispensary; Northwestern Medical Society of Philadelphia; Practitioners' Club, Richmond, Ky.; Richmond, Va., Academy of Medicine and Surgery.

WEDNESDAY, July 15th.—Woman's Medical Association (New York Academy of Medicine); New Jersey Academy of Medicine (Newark); New York Society of Dermatology and Genitourinary Surgery (private); New York Academy of Medicine (Section in Genitourinary Diseases).

THURSDAY, July 16th.—New Bedford, Mass., Society for Medical Improvement (private); Atlanta Society of Medicine.

FRIDAY July 17th.—New York Academy of Medicine (Section in Orthopaedic Surgery); Clinical Society of the New York Post-Graduate Medical School and Hospital; Manhattan Medical and Surgical Society (private).

NEW YORK, CITY AND STATE.

Departure of Professor Lorenz.—Professor Lorenz sailed for Europe on the *Kronprinz Wilhelm*, on July 7th.

Chautauqua Sanitary Inspector Appointed.—Dr. William A. Callahan, of Buffalo, has been appointed sanitary inspector of the Chautauqua Institute, at Chautauqua, N. Y. Dr. Callahan graduated at the University of Buffalo this year.

A Gift to Seney Hospital.—On the occasion of the Wesley bicentennial, recently celebrated, two Long Island churches, the First Methodist, at Amityville, and the Methodist Church at Babylon, L. I., together contributed over a thousand dollars, the fund to go to the Seney Hospital, in Brooklyn.

Floating Hospital Work.—Owing to a lack of sufficient funds, St. John's Guild will not maintain more than one floating hospital this season. The service will alternate between the east and west sides of New York only, the Brooklyn service which has been maintained for the last four years being discontinued for the present. Should sufficient contributions be sent in, however, the full service will be resumed. Contributions should be sent addressed to Isaac N. Seligman, treasurer of St. John's Guild, 501 Fifth Avenue.

Changes in Albany Medical College.—Dr. R. M. Pearce, of Philadelphia, has been appointed adjunct professor of pathology and bacteriology in Albany Medical College, to succeed Dr. George Blumer, resigned. Dr. E. McD. Stanton, of New York, becomes lecturer on clinical microscopy, and Dr. Charles K. Winne, of Mount Wilson, Md., instructor in histology.

Land for Bellevue.—Subsequent to a meeting of the trustees of the Allied Hospitals, and acting on the representations of President Brennan, of the board of trustees, the board of estimate on July 1st authorized the condemnation of the block including the portion of Twenty-ninth and Twenty-eighth Streets bounded by First Avenue and the East River.

Higher Birth Rate for New York.—According to the vital statistics of the board of health for the first half of the current year there is a marked decrease in the death rate compared with the corresponding period of last year, and an increase in the number of births reported, which shows 46,408 as against 40,392 for the first half of 1902. The increase is partly owing, doubtless, to the more careful registration of births as well as to an increase of immigration.

St. Andrew's Convalescent Hospital.—The St. Andrew's Convalescent Hospital for Women and Girls at 213 East Seventeenth Street, has closed its city quarters and opened a summer rest at Woodcliff, Bergen Co., N. J. It is a benevolent institution incorporated within the past year and provides medical care and rest for those women and girls who have been discharged from the various city hospitals, but are as yet unfit to take up their duties. Information may be obtained and applications made by telephone No. 5912, Eighteenth Street.

A Home for Sick Nurses.—In answer to an appeal by the general superintendent of the Methodist Episcopal Hospital of Brooklyn, the nurses themselves have come forward and have pledged themselves to endow a ward for the reception of any among their number who may be ill and temporarily incapacitated from work. The Nurses' Alumnae Association took the matter in hand at a recent meeting, and although only twenty-four nurses were present, \$1,600 was at once subscribed. The ward in question will cost \$20,000, and the movement is part of a plan to complete and endow the Seney Hospital, which was left unfinished fifteen years ago, on the financial failure of its donor, George I. Seney.

A Convalescent Hospital Opened.—A new modern hospital for convalescents was opened on Blackwell's Island, on July 1st. The place is especially for those who it is hoped will, after a few weeks of rest with healthful surroundings, kind treatment and nourishing food, be restored to health sufficiently to lead a useful life. No chronic, contagious or incurable cases will be received. A patient, except in special cases approved by the resident chief of staff may not remain for a period longer than three weeks. This is the first institution of the kind in New York and is designed to receive such cases as may be discharged from the city hospitals subsequent to a surgical operation in order to make room for emergency cases. The hospital is in the building formerly occupied by the Manhattan State Hospital, now the property of the Metropolitan Hospital, on Blackwell's Island.

Doctors in Defense of their Brethren.—At the recent meeting of the third district branch of the New York State Medical Association, held in Syracuse, a new article was added to the by-laws of the association to the effect that in compliance with the conditions specified in the article the council shall hereafter assume the defense of suits for alleged malpractice brought against one of the members. Any member wishing to avail himself of the privilege must first sign a contract vesting the council with the sole authority to conduct the defense in any manner that seems to them fit and desirable. The council will, however, not assume the payment of damages should any be rendered by the court.

PHILADELPHIA AND PENNSYLVANIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

DISEASES.	Week ending July 4		Week ending June 27	
	Cases.	Deaths.	Cases.	Deaths.
Small-pox.....	30	8	26	3
Diphtheria.....	37	7	26	1
Scarlet fever.....	33	4	48	29
Typhoid fever.....	83	29	141	19
Consumption.....		58	0	0
Cerebrospinal fever.....		1		0

This table shows a decrease of twenty-nine in the total of cases of contagious disease as compared with the preceding week.

St. Joseph's Hospital.—Dr. Henry Shively has been appointed visiting physician to St. Joseph's Hospital.

The Jewish Hospital Association.—By the will of Horace A. Nathan, of 500 Centennial Avenue, among other charitable bequests the residue of a large sum of money was left to the Jewish Hospital Association.

Bequests to Hospitals.—By the will of Owen Lamb, of Philadelphia, the sum of \$500 was left to St. Joseph's Hospital, and \$15,734 to the Sisters of St. Francis of Philadelphia, to be applied by them to the support of St. Mary's Hospital.

A Hospital Roof Garden.—The formal opening of the roof garden of the Philadelphia Hospital took place this week. The garden is designed to afford the open-air treatment to tuberculous patients, and is considered superior to the old glass pavilions.

Colored Nurses Graduate.—At the commencement exercises of the Philadelphia School for Nurses, certificates were given to twenty-one young colored women, among whom were representatives from British Guiana, Virginia, Arkansas, New Jersey, Delaware, and Pennsylvania.

The Municipal Hospital.—The new building of the Municipal Hospital in the Thirty-third Ward will not be completed till 1905. Meanwhile, patients must be accommodated in the present institution at Twenty-second Street and Lehigh Avenue, which is greatly in need of repair.

New Administration Building for the Philadelphia Hospital.—A permit has been granted to allow the erection of a new administration building for the insane department of the Philadelphia Hospital. It will be situated on State Road between Pennypack and Ashburne Avenues, and is planned to be a four-story brick and stone structure, at a cost of \$100,000.

School Inspectors to be Paid.—The force of volunteer inspectors of school children, although they have rendered excellent service, has been disbanded and replaced by a paid corps. Every child will be examined daily for symptoms of contagious disease. The inspectors are now paid seventy-five dollars per month for the school year of ten months. They are not to supplant the family physician, but to notify parents of the presence of ominous symptoms.

To Provide Wholesome Milk for Infants.—The plan to provide wholesome milk for babies is meeting with universal success, and a number of contributions for large sums have been received. So far, about eighty proffers of help, in the way of branch depôts where the milk, made according to the formula to be prescribed by the department of health, can be kept on hand and sold at a reduced price to consumers, have been made. The pasteurizing of milk is to be carried on all over the city, and the physicians all over Philadelphia are warm in their praise of the innovation.

The Medico-Chirurgical Hospital.—The main building of this hospital is to be made practically fireproof. The building is to be reconstructed. The interior is to be torn out and rebuilt in substantial and up-to-date style with modern sanitary appliances. In the centre of the building will be an elevator surrounded by a fireproof marble stairway, the whole enclosed with iron and woven wire glass. In addition there is to be erected a smoke proof fire escape. The nurses' dormitory is also to be reconstructed. The contract for the work has been awarded and the work is to be completed by December 15th.

The Office of Post-office Physician.—Last week Postmaster McMichael was notified that this office had been abolished. This order displaces Dr. Sherborne W. Dougherty, who was appointed by Colonel McMichael shortly after he assumed the duties of postmaster. In commenting on the abolition of this position Postmaster McMichael said: "It is not within my knowledge why this position is abolished. The probability is that the action is based upon some construction of the laws or acts of appropriation by Congress for the expenses of the post-office department. To be deprived of such an important and practically necessary part of the machinery of good public service is a matter for extreme regret. The system of medical supervision established in the Philadelphia post-office is valuable to the government beyond any ordinary measure of recompense. In the Philadelphia post-office the records of the post-office physician are the official history of a man deserving of promotion for fidelity to his duty."

The Disposal of Sewage.—Dr. Martin, director of public health and charities, has laid out a new line of work, which will be taken up as soon as the various matters now occupying his attention are disposed of. The director says that one of the greatest reforms which can be worked in Philadelphia is the improvement and total alteration of her sewage system. He also says, "It is becoming an obsolete method, this disposing of sewage by running it into streams and rivers. Atmospheric pressure could be successfully employed for the conveyance of sewage to where the liquid portion could be filtered and the solid portion dried and converted into guano. Only a small percentage of offensive matter would then be washed into the streams. This city will have to come to such a system for the disposal of its sewage at no distant day."

New Hospitals for the Indigent and Insane.—Work on the proposed buildings of the new hospitals for the indigent and insane has been ordered to be suspended, and if councils approve Dr. Martin's plans, new and larger sites will be bought in Bucks and Montgomery counties. Dr. Martin's ideas comprise sites of from six hundred to one thousand acres each, and buildings so constructed that they may be added to from time to time. He considers out-door employment highly necessary in the treatment of the insane and states, furthermore, that the present site would soon prove inadequate. An expenditure of over \$3,000,000 is contemplated. A legal question involved is the fact that Philadelphia could not exercise police supervision of Bucks and Montgomery counties, as they are outside the city limits.

Vaccination to be more General.—It will not be the fault of the health bureau if smallpox is not stamped out of this city. The continued presence of smallpox in this city, according to Dr. A. C. Abbott, of the bureau of health, is a disgrace. Dr. Abbott has just returned from an inspection of the North Brothers Island city hospital of New York, and what he saw impressed him very favorably. Dr. Abbott believes in wholesale vaccination, and he will take a step forward in this movement for universal vaccination, by asking aid of the managers of every hospital in the city in refusing to receive any one who has not been vaccinated within five years and who refuses to be vaccinated. Large employers of labor will also be asked to see that their employees are also vaccinated. Twenty-two new cases of smallpox were reported early in the week and the disease seems to be increasing.

Board of Health Appointments.—The Rev. Dr. J. Gray Bolton and Byron E. Wrigley are succeeded as members of the board of health by the appointment of Dr. Charles B. Penrose and Dr. George Arthur Piersol. Dr. Penrose is a brother of United States Senator Penrose. He graduated at the medical department of the University of Pennsylvania, in 1884. He was long connected with the Pennsylvania Hospital, and was the surgeon to the Gynæcean Hospital, from its foundation in 1887. He became a surgeon at the German Hospital in 1890, and served as professor of gynæ-

cology in the medical department of the University of Pennsylvania from 1893 to 1899, when he resigned the chair and at the same time retired from the practice of medicine. Dr. Penrose is the author of a *Textbook of Diseases of Women*.

Dr. Piersol has been professor of anatomy in the medical department of the University of Pennsylvania since June, 1891. He graduated at the medical department of the University of Pennsylvania in 1877.

New Philadelphia Hospital.—The Frankford Hospital was opened on July 4th, at Penn and Sellers Streets. The visiting staff are R. Bruce Burns, Joseph P. Ball, Charles P. Brady, C. M. Stills, B. Frank Walters, and J. W. Wilkins. Members of the proposed Northeast Hospital, which has not yet secured a location, are discussing the advisability of consolidating with the Frankford. The opening exercises were largely attended. The accident ward is now complete. It contains eight cots. This ward was furnished by the family of Dr. R. Bruce Burns, and it is under the direction of Miss Theresa L. Miller, a graduate nurse of the Medico-Chirurgical Hospital. Councilman Albert Oat, of Frankford, has furnished the women's surgical ward, which is on the second floor. The operating table was presented by William Gaulbert. The nurses' quarters and dining room were furnished by Mrs. Jennie Overington, and the surgical sterilizing apparatus by Greenwood and Bault. Dr. R. Bruce Burns will have charge of the surgical work; Dr. Joseph P. Ball, of the medical; Dr. Charles P. Brady, of neurology; Dr. C. M. Stills, of the eye department; Dr. B. Frank Walters, of the nose and throat, and Dr. J. W. Wilkins, of the gynecological department.

A New Departure in the Drexel Institute.—A novel and an important innovation, due, we believe, to the suggestion of Dr. S. Weir Mitchell, is the establishment in the Drexel Institute of a preparatory course for trained nurses. The course will cover two terms, and besides elementary instruction in anatomy, physiology, chemistry, bacteriology, etc., will afford an opportunity to study domestic science and economics, English composition, facial expression, vocal culture and gymnastics. The public lectures on art, science, literature, etc., of the institute are free to the students, who will also have access to the library, museum, and art gallery. A certificate will be issued to students who complete the course and preference given to the holders in the Philadelphia training schools. A high school education or its equivalent is a prerequisite to admission. That the advantages of this excellent mental training may be shared by as many persons as possible, graduate nurses, and even women who do not intend to study nursing, may be admitted. The total cost of tuition for the two terms, including books, stationery, etc., will be about seventy dollars. Board and lodging may be obtained in Philadelphia for five dollars per week. Dr. S. Weir Mitchell has offered for the year 1903-4, two prizes of thirty and twenty dollars, to be awarded to the students standing first and second, respectively, in all the studies of the course. The first term begins Thursday, Septem-

ber 17th, and the second, February 1st. Further information may be obtained of Dr. Albert P. Brubaker, care of the Drexel Institute, Philadelphia, Penna.

CHICAGO AND ILLINOIS.

Refrigerator Cars for Milk.—In a recent address by State Analyst Eaton before the Illinois Dairymen's Association, he advocates the use of refrigerator cars especially built to handle the milk traffic, also coolers at every station as well as a steam sterilizing plant for empty cans, and adds that if dealers were required by law or ordinance to wash cans before returning to the train, a great improvement could be made in Chicago market milk at little, if any, additional expense to consumers.

A Suit to Remove a Hospital.—A bill has been filed in the Superior Court of Chicago by the heirs of the late Justice Daniel Scully, for the removal of the Kedzie Hospital at 350 Warren Avenue, Chicago, which adjoins the property of the said heirs. It is alleged that the residents of the adjoining property are disturbed by the cries and groans of the hospital patients; also that the first intimation they had received of the establishment of a hospital adjoining their residence was on May 1st, when ambulances drew up at the door and patients on stretchers were carried into the building.

A Movement to Bar Hospitals.—Residents of the twentieth ward, in the vicinity of the Cook County and Presbyterian hospitals, are uniting to drive private hospitals and the smaller institutions from their principal streets. The old city ordinance would have driven most of the best city hospitals out of existence and, while waiting for a new ordinance to be drafted, a number of small institutions sprang up along many of the best residence streets of the twentieth ward, without a city license or permit. The fight is at present being directed against the Chicago Lying-in Hospital, at 294 Ashland Boulevard.

Milk Regulations in Chicago.—Milk platforms at railway stations have been placarded with the following notices to milk dealers: "Shippers' cans must be returned to farmers clean and dry. All vessels used in handling milk should be scalded or sterilized daily. All milk bottles should be washed with hot soap suds, rinsed in clean water, and then sterilized in boiling water or live steam before milk is put in them. No dealer can expect to hold his bottle trade unless he does this. If possible every dealer should visit the farm where his milk is produced, so he can assure his customers that it is produced under clean and healthy conditions.

ARTHUR R. REYNOLDS, M. D.,
Commissioner of Health."

The following notice is for shippers: "Milk cans must be clean inside and out. No matter how clean a can looks, before using it should be washed with hot soap suds, rinsed with clean water and then scalded. Milk shipped in dirty cans is liable to confiscation.

ARTHUR R. REYNOLDS, M. D., etc."

Illinois Birth Rate High.—Statistics show that the birth rate for 1902 was 19.70 per 1,000; while the death rate for the same period was only 12.54.

Rush Medical College Fund.—The trustees of Rush Medical College have been successful in raising a fund of \$1,000,000, which has been handed over to the trustees of Chicago University. Now that this is done, they look forward to the fulfilment of Mr. Rockefeller's promise of \$6,000,000 for the new department of Chicago University, which would ensure the construction of one of the finest medical institutions in the world.

GENERAL.

Illness of Dr. Roswell Park.—We are pleased to note that Dr. Roswell Park, of Buffalo, has recovered from his recent severe illness and will shortly be able to resume his professional duties.

Diphtheria in Cleveland.—Alarm has been caused in Cleveland by the sudden increase in the number of diphtheria cases, there having been nineteen cases with three deaths during the past week.

The Campaign against Mosquitoes.—The results thus far of the fight against mosquitoes and malaria by the French in Algeria have been summed up in a work by Dr. Edmond Sergent, entitled *La Lutte contre les Moustiques*.

Kentucky University.—The annual commencement of the medical department of Kentucky University, was held in Louisville, July 7th. The graduating class was unusually large, showing an increase of about 400 per cent. in the last four years.

A Smallpox Hospital Destroyed.—The main structure of a group of buildings at Heywood and Mosswood Avenues, Orange, N. J., used two years ago as an isolation hospital during the outbreak of smallpox, was burned to the ground last Sunday.

Massachusetts State Vaccine.—The Massachusetts State Legislature, at its last session, passed a bill authorizing the manufacture of vaccine lymph by the State board of health. The bill was strongly opposed by druggists, but the measure meets with popular approval.

Plans to Remodel Touro.—A lengthy executive meeting was held in New Orleans on June 21st by the Touro Infirmary and Hebrew Benevolent Association to discuss the remodelling of the institution, but no definite conclusions were reached.

Medical Inspectors of Public Schools to be Examined.—The United States Civil Service Commission will hold an examination in Washington, D. C., on July 22nd and 23rd, for the appointment of medical inspectors in public schools, and of physicians to the poor in the District of Columbia. Blank applications for those desiring to take the examination can be procured at the bureau of health, in Washington.

Arizona Academy of Medicine.—The regular quarterly meeting of the Arizona Academy of Medicine, E. Payne Palmer, M. D., president, was held at Phoenix, Ariz., on June 27th. The Afee bill was adopted and resolutions passed ordering the drawing up of a dead head list.

St. Mary's Hospital, Oshkosh, Wis.—When the new addition is completed at an outlay of \$60,000, St. Mary's Hospital will be one of the largest and most modern hospitals of its kind in the State. The original building, opened in 1899, was of wood, two stories in height.

A Milk Commission Organized.—The Medical Society of the District of Columbia has organized and incorporated a milk commission for the purpose of establishing chemical standards of purity for cows' milk, and securing for the consumers of the District a pure milk supply.

University of Vermont.—The fiftieth commencement exercises of the medical department of the University of Vermont were held on June 24th and 25th, at Burlington, Vt. Thirty-one students were graduated, the same number as in 1902. An Alumni Association was formed.

The Height of Hospitals Limited in San Francisco.—By an ordinance passed at a meeting of the Board of Supervisors of Public Works, in San Francisco, on June 22nd, no hospital hereafter to be erected shall exceed sixty feet in height, or contain more than four stories. They must, moreover, be built of fireproof material.

A New Office in Canada.—Dr. Arthur Jukes Johnson has been appointed chief coroner of Toronto, Ont., Canada, filling an office recently created by the provincial legislature. The duties are to supervise the thirty other city coroners and to decide when inquests are necessary. Accidents on railroads and trolley lines are not in his jurisdiction.

The Clifton Hospital.—In spite of opposition on the part of property owners, the Sisters of Charity are resolved to build a hospital on the old Theodore Cook estate, at Resor and Clifton Avenues, outside Cincinnati, Ohio. Mother Sebastian, of the order, recently refused an offer of \$31,000 for the property, for which the sisters paid \$30,000 two months ago.

Death of Dr. G. Dalton Hays.—Dr. G. Dalton Hays, who died at his home in Tenafly, N. J., on July 3rd, took the gold medal at the College of Pharmacy, and served as instructor in the college for many years. He graduated at the College of Physicians and Surgeons, New Jersey, in 1884, became a member of the Academy of Medicine, and was secretary of one of its departments. He was also a lecturer at the Post-graduate Medical School, and Training School for Nurses. Dr. Hays was a son of David Hays, who was vice-president and treasurer of the College of Pharmacy for many years.

The Constitutionality of the Massachusetts Vaccination Law to be Tested.—The question of the constitutionality of the compulsory vaccination law will be tested in Washington, D. C., when the case of Heming Jacobson, of Cambridge, Mass., versus the Commonwealth of Massachusetts, docketed in the United States Supreme Court on June 30th, comes up for trial.

Cleveland's New Sanatorium for Consumptives.—The new sanatorium was opened to the public on June 25th. There was no formal dedication. The building is the first of its kind in the United States. About fifty patients were placed there on July 1st. Although the sanatorium, which was formerly a smallpox hospital, has been thoroughly disinfected, cleansed and renovated, there is a prejudice in the minds of many person against entering its door.

Boston Floating Hospital.—The floating hospital of Boston began its regular summer season on the seventh instant, equipped with a new atmospheric plant, which cools and dries the air in the wards. It has been selected as an observation station by the Rockefeller foundation to test cholera antitoxine. The consulting staff consists of C. P. Putnam, H. L. Burrell, Samuel Breck, Frederick Coggeshall, Robert W. Hastings, William E. Fay, Arthur W. Fairbanks, Charles G. Cumston, Alfred M. Amadou, A. Quackenboss, and C. E. Southard. Robert W. Hastings is resident physician.

Michigan State Medical Society.—At the recent annual meeting of the society, held in Detroit, on June 13th, which numbered the largest attendance known in the history of the organization, the following officers were elected: President, William F. Breakey, of Ann Arbor; first vice-president, George C. Hafford, of Albion; second vice-president, W. S. Walkley, of Grand Haven; third vice-president, C. S. Cope, of Ionia, besides other officers. The next annual meeting will be held at Grand Rapids, Mich.

The New Jersey State Board of Medical Examiners.—At the annual meeting of the State Board of Medical Examiners held at Long Branch, July 6th, the following candidates, who passed the State examination held at Trenton, June 16-17, were granted certificates of license to practise medicine in New Jersey: Leon Hamilton Bossert, of Millville; Arthur W. Belting, of Trenton; Joseph Howard Cloud, of Ardmore, Pa.; Francis R. Di Matteo, of Newark; John Edward Donley, Jr., of Orange; Harry Stokes Doriss, of Atlantic City; Joseph William Dwyer, of Passaic; Edmund Eastwood, of Burlington; Walter Roland Elliott, of Philadelphia; Mary E. Esser, of Philadelphia; James Aloysius Gormley, of Vineland; Earl Stephen Hallinger, of Camden; Pomp. Long Hawkins, of Atlantic City; Charles R. Heed, of Philadelphia; William Thomas Hilliard, Jr., of Salem; Howard Franklin Hoffmeier, of Phillipsburg; Smith Hamill Horne, of Atlantic City; Charles Albert Keating, Jr., of Paterson; Raymond Arndt Kiefer, of Midland Park; Joseph William Kenney, of Philadelphia; John William King, Jr., of Newark; Edward Isaac Leonard, of

Atlantic City; Fred Irvin Longstreet, of Manasquan; John Carmelia Loper, of Bridgeton; Harry George Macdonald, of Hackensack; Calvin Edward MacMillan, of Lakewood; Emil Mantner, of Newark; Harold Philip Martin, of Newark; Thaddeus P. Martin, of Atlantic City; Charles Holmes Mayhew, of Port Elizabeth; Dennis Ralph McElhanny, of Long Branch; Frederick W. A. Mayer, of Jersey City; John Lewis Meeker, of Newark; James Percival Morrill, of Paterson; Edward Ralph Myers, of Atlantic City; Marcus Ward Newcomb, of Newport; Jeremiah Francis O'Connor, of South Amboy; T. Richard Paganelli, of Hoboken; Edward Parry, of Camden; Thomas Heritage Platt, Jr., of Bridgeton; Jacob Wilson Reed, of Pleasantville; Siegmund Albert Reich, of Jersey City; Joseph England Roberts, Jr., of Camden; Edward Bancroft Rogers, of Mt. Holly; Horace Lewis Rose, of Camden; Israel Jay Rachlin, of Newark; William Satterer, of Newark; John Berkey Seeds, of Trenton; Frank Remington Sheppard, of Cedarville; William Rice Silverstein, of Newark; Howard Sedgwick Smith, of Newark; Katherine Louise Storm, of Philadelphia; Edmund Brewster Terry, of Atlantic City; Claude Wellington Thomas, of Medford; William Hibbs Tomlinson, of Trenton; Helen Frances Upham, of Asbury Park; John Van Ess, of Paterson; Joseph Smith Van Dyke, of Cranbury; William John Ward, of New Brunswick; Victor Egbert Watkins, U. S. Army; Absalom Steelman Westcoat, of Atlantic City; Herbert Heisler Wilson, of Bridgeton; Emanuel Yadcowsky, of Newark; J. John Lee Young, of Newark. The following candidates having attained a general average of 90 or over, were placed on the honor roll: Francis R. Di Matteo, of Newark, 92; Jeremiah Francis O'Connor, of South Amboy, 92; Howard Franklin Hoffmaier, of Phillipsburg, 91.1; Joseph England Roberts, Jr., of Camden, 91.1; Joseph Smith Van Dyke, of Cranbury, 91; James Percival Morrill, of Paterson, 90.6; John Edward Donley, Jr., of Orange, 90.1; William Satterer, of Newark, 90, and William John Ward, of New Brunswick, 90.

Post-office Physician a Necessity.—According to Postmaster Hibbard, of Boston, Mass., a post-office physician is an absolute necessity, as absent employees need to be looked up and cared for when ill, or investigated when illness is feigned. No one but a regular practising physician can discern the difference between feigning and reality, says Dr. Draper, the former post-office physician in Boston. The office was discontinued by the Washington authorities, there being no appropriation for the payment of any such official.

A Pioneer Physician Passes Away.—One of the oldest practising physicians in the West, Dr. Robert Boal, died at his home in Lacon, Ill., on June 12th, at the age of ninety-six. Dr. Boal was prominent in Illinois legislature long before the civil war and was a staunch supporter of Lincoln. He was one of the organizers of the Illinois Medical Society seventy years ago, and was an intimate friend of Lincoln, Douglas, Baker, and Hardin, and wielded a large power in shaping the affairs of the State of Illinois in the early days.

Pith of Current Literature.

LANCET.

June 20, 1903

1. Muscular Movements and their Representation in the Central Nervous System. By C. E. BEEVOR.
2. Intubation in Cases of Diphtheritic Laryngitis. By H. A. T. FAIRBANK.
3. Two Fatal Cases of Partial Thyroidectomy. By F. C. MADDEN.
4. On the Danger of Railway Trips to High Altitudes, Especially for Elderly People. By THEODORE ZANGGER.
5. On the Discovery of a Species of Trypanosoma in the Cerebrospinal Fluid of Cases of Sleeping Sickness. By ALDO CASTELLANI.
6. Case of Chorea Gravidarum Treated by Inducing Abortion. By J. B. HELLIER.
7. A Simple Expedient in the Reduction of Sugar by the Copper Reduction Method. By S. A. VASEY.
8. Preliminary Note on the Use of Chloroform in the Preparation of Vaccine. By A. B. GREEN.

2. Intubation in Diphtheria.—Fairbank's paper is based upon an experience of thirty-three cases of laryngeal diphtheria in which intubation was performed; of these nine were fatal, a mortality of 27 per cent. The operation should be performed with the child lying in bed, so as to disturb as little as possible the absolute rest which is essential in diphtheria. Its arms should be encased in thin tubes of cardboard, so as to prevent the hands reaching the mouth, and a blanket should be wrapped around the body. With practice it will be found possible to avoid opening the gag very widely and still to introduce the tube. Opening the gag often causes an increase in the dyspnoea. It should always be closed or removed between the attempts to introduce the tube. The tubular character of the violent respiration following successful intubation is unmistakable. In its absence the tube may be pulled at once from the oesophagus, into which it has certainly passed. O'Dwyer's scale is too small, and Fairbank uses tubes suitable for children from six months to two years larger than the patient operated upon. The bigger the child the bigger the tube, irrespective of age. The male larynx is slightly larger than the female. The thread attached to the tube should be retained as long as the tube is in the larynx. It affords a ready means of removal by doctor or nurse should it become suddenly blocked by membrane. After intubation a child should be fed by the mouth with food suitable to his age and general condition; in most cases this will consist principally of milk. If there is much coughing the milk should be thickened with arrowroot. Nasal feeding may have to be resorted to after removal of the tube. In a case of average severity the tube should be removed and replaced at the end of twenty-four hours, and again removed at the end of a further twelve hours and results awaited. If it has to be replaced it should again be removed at the end of twenty-four hours: if yet again it has to be replaced, it should be left in forty-eight hours. This will often enable the child finally to dispense with the tube. A slight

rise of temperature is not uncommon after the tube is first introduced. If immediate relief is not afforded by intubation, or if the child should grow worse, the tube should be removed. Severe ulceration of the larynx is uncommon: its signs are free bleeding from the larynx, rapid and repeated appearance of oedema after removal of the tube, tenderness, and fever. If such a condition grows worse, tracheotomy should be performed at once. In the great majority of cases, however, secondary tracheotomy diminishes the child's prospects of recovery. Abscess formation in front of the larynx or the trachea calls for immediate tracheotomy.

3. Fatal Thyroidectomy.—Madden reports two cases of partial thyroidectomy, both ending fatally, which illustrate well the possible complications of the operation, depending entirely upon the condition in which the thyroid gland is left after the operation. In the first case, that of a girl aged twelve years, all of a large tri-lobed goitre was removed with the exception of a piece of the isthmus the size of a walnut. This was not functionally sufficient, however, for two days after the operation the patient had an attack of laryngeal spasm due to tetany of the respiratory muscles. Tetany in the hands and feet also appeared, and although the administration of thyroid tablets was beneficial for a tube, the tetany grew more severe, the patient failed, and died twenty-four days after the operation. In the second case, that of a man aged twenty-four years, the goitre had lasted eight years, and was limited entirely to the isthmus of the gland. It was removed in the ordinary way, and as soon as the anæsthetic wore off, the patient's pulse and respiration became very rapid. The case was regarded as one of thyroid toxæmia, and the dressings were removed and the wound cavity irrigated. Later, venous transfusion with saline solution was performed, but all to no purpose, the patient dying twenty-eight hours after the operation. The cause of death was the sudden introduction of thyroid secretion into the system, absorption taking place from the cut surfaces of the isthmus, the extreme vascularity of the part accounting for the rapidity of absorption. The symptoms were exactly like those of overdoses of thyroid extract.

4. Danger of High Altitudes.—Zangger states that the dangers that menace the lives of elderly persons undertaking mountain ascents are two: apoplexy and heart failure. Such seizures do not occur exclusively while the patient is at the high altitude, but may come on two or three days after their return to low ground. A difference of 1,600 feet may act detrimentally upon persons suffering from the first symptoms of heart failure. The upper limit of indifferent or harmless altitudes may be fixed at about 3,300 feet above sea level. Accurate observations have shown that leisurely conveyance by train or carriage, without any exertion on the part of the person conveyed, up 8,300 feet during mild weather, caused an increase in the pulse rate, a decrease of the blood pressure, and a decrease of the vital capacity of the lungs. Slight exertion, such as walking on level ground, caused the pulse to jump to 160 a minute; so that it is easy to un-

derstand that mountain ascents by railway may be productive of serious injury to elderly persons affected with arteriosclerosis or degeneration of the heart. Such ascents are dangerous for all who cannot walk up a gentle slope for an hour, without dyspnoea, giddiness, etc. Among the important factors are the decrease of atmospheric pressure, the diminution in the absorption of oxygen with a consequent increase in carbonic acid content of the blood and the reduction of the atmospheric temperature which contracts the peripheral blood vessels.

5. Trypanosoma in Sleeping Sickness.—Castellani, in 1902, found a living trypanosoma in the cerebrospinal fluid taken by lumbar puncture during life from a case of sleeping sickness. Since then he has found trypanosomes in the cerebrospinal fluid in twenty out of thirty-four cases. In blood they were only found once. They did not differ materially in size and shape from the species found in the blood in trypanosoma fever, except in that the micronucleus was nearer the centre and the vacuole was apparently larger. They are not numerous, and at least 15 cubic centimetres of the cerebrospinal fluid must be drawn off and centrifugated for fifteen minutes. As the trypanosomes are at first fairly active, they are easily detected in the sediment. At the post mortem examination of 80 per cent. of the cases in which trypanosomes were found during life, Castellani isolated from the heart's blood and the liquid of the lateral ventricles, the particular streptococcus previously described by him as being possibly the cause of the disease. He now suggests that sleeping sickness is due to the trypanosoma, and that in the last stages of the disease there is a concomitant streptococcus infection. Bruce, who is carrying on Castellani's work in Uganda, announces that in thirty-eight cases of sleeping sickness, he has found trypanosoma in every case in fluid obtained by lumbar puncture, and in the blood in twelve out of thirteen cases.

6. Cure of Chorea Gravidarum by Abortion.—Hellier reports the case of a woman, aged twenty-three years, who, during her second pregnancy, developed chorea at the end of the fourth month. The choreic movements were violent, all sedative medication failed, and finally abortion was performed. No improvement took place for two days, but when it did appear its progress was very rapid. The chorea of pregnancy depends upon a toxæmia which is little amenable to drugs, and termination of the pregnancy is the most rational mode of treatment. But in chorea gravidarum, as in hyperemesis gravidarum, interference must not be too long delayed.

7. Modification of Fehling's Test for Sugar.—Vasey calls attention to the fact that one of the disadvantages of Fehling's test for sugar in the urine, when used quantitatively, is the length of time that it takes for the light cuprous oxide to settle, and so to permit of the determination whether the blue color of the solution has entirely disappeared—i. e., that all the copper has been reduced. He finds that the addition of an inert powder, such as precipitated chalk, or better, barium sulphate, entangles the precipitated oxide and carries it rapidly

to the bottom of the solution, thus leaving a clear liquid above in which the faintest trace of blue can be seen.

8. Chloroform in the Preparation of Vaccine.

—Green has found that by the use of a solution of chloroform in distilled water, the extraneous bacteria of vaccine are eliminated in from one to six hours, the specific germ remaining freely potent for vaccination. The best solution is one in distilled water, having a strength of one in two hundred. The following considerable advantages are to be gained: (a) So speedy an elimination of extraneous microorganisms is attained, that vaccine, practically free from such organisms, can be distributed for use within a few hours of its collection from the calf. During smallpox epidemics this would be of the greatest importance. (b) Vaccine, characterized by high but transient potency, can by means of this chloroform process be used at once before its activity has deteriorated. (c) In hot climates, where vaccine loses its potency rapidly, the process is of value for the same reason.

BRITISH MEDICAL JOURNAL.

June 20, 1903.

1. Muscular Movements and their Representation in the Central Nervous System. By C. E. BEEVOR.
2. The Rapid Estimation of the Quantity of Chloroform Vapor Present in Mixtures of Chloroform Vapor and Air. By A. D. WALLER and V. GEETS.
3. The Physiological Action of Ethyl Bromide and Somniform. By S. W. COLE.
4. The Influence of Ether Administration on Nitrogenous Metabolism. By H. J. PECHELL.
5. The Process of Chemical Synthesis in Living Things. By A. C. HILL.
6. Case of Tuberculous Meningitis in an Adult with Unusual Symptoms. By T. H. MORSE and A. J. CLEVELAND.
7. Some Observations on the Morphology of the Trypanosoma found in Sleeping Sickness.

By ALDO CASTELLANI.

2. Quantitative Estimation of Chloroform Vapor.—Waller and Geets's method for the rapid estimation of the quantity of chloroform vapor present in mixtures of chloroform vapor and air, consists in the direct weighing on a chemical balance of a flask of known capacity, (a) filled with air. Each cubic centimetre of chloroform vapor air; (b) filled with the mixture of chloroform and replacing one cubic centimetre of air gives an additional weight of 4 mgs. For practical purposes calculation can be avoided by a direct reading of the difference of weight of a 250 cubic centimetre flask, (a) filled with air; (b) filled with the mixture of chloroform vapor and air to be titrated. The excess of the latter, counted in centigrammes, gives the percentage of the mixture.

4. Ether and Nitrogenous Metabolism.—Pechell has investigated the urine in thirteen cases of young adults who were suffering from surgical ailments not affecting their general health, and whose kidneys were sound, with a view to the de-

termination of the influence of the anæsthetic (ether) upon nitrogenous metabolism—i. e., excretion of urea, uric acid, and the xanthin bodies.

As regards the total nitrogen excretion, there is a marked fall on the day after etherization, and a considerable rise on the two subsequent days. The urea also falls on the day after etherization, but it rises more slowly, reaching its maximum on the fourth or fifth day. In every case the anæsthesia was followed by a marked rise in the percentage excretion of uric acid; and in every case but one, the maximum was reached on the day after the operation. The xanthin bodies varied inversely as the urea in total amount and percentage.

7. The Trypanosoma of Sleeping Sickness.—Castellani gives a few details on the morphology of the trypanosoma found by him in the cerebrospinal fluid taken during life by lumbar puncture from 70 per cent. of cases of sleeping sickness. The parasite has the usual general outline of other trypanosomes. It has a wormlike shape; one end terminates with a flagellum, the other is bluntly conical; there is an undulating membrane and a vacuole. The protoplasm has rather an alveolar structure. At first the parasite moves fairly actively, with a screw-like motion, but the movements become more sluggish, until they finally stop altogether. Frequently the trypanosome is engulfed by a leucocyte. The protoplasm does not stain evenly, or very deeply. The total length of the parasite is from 18 to 26 μ , the width from 2 μ to 2.5 μ . In the blood from the finger there are frequently to be observed large roundish bodies, 14 to 16 μ in diameter, with one or more vacuoles, which the author considers as developmental stages of the trypanosome. The only species of trypanosome so far known in man is *Trypanosoma gambiense* (Dutton). The author's parasite shows certain minor differences from this, and he is inclined to think it may possibly turn out to be a new species.

BERLINER KLINISCHE WOCHENSCHRIFT.

May 18, 1903.

1. The Ætiology of Tabes Dorsalis.
By Professor E. VON LEYDEN.
2. Temperature Relations in Chronic Articular Affections and Congestion.
By M. HERZ.
3. Ætiology of Diabetes Mellitus.
By LENNÉ.
4. Morphological Processes in Infection and Immunity.
By A. WOLFF.
5. Physical Exercise and Alcoholism.
By F. HUEPPE.

2. Temperature and Chronic Articular Affections.—Herz has made some experiments with a delicate apparatus and has found that in fifteen cases of chronic diseases of the joints the cutaneous temperature was lower than in healthy joints, with the exception of four cases. In congestion of the joint, however, even in a very mild degree, the temperature of the skin rose at once, showing, as the author believes, that passive, as well as active congestion, evokes a hyperæmia. If the congestion was active, there was at first an increase, later a decrease in the temperature.

3. Ætiology of Diabetes Mellitus.—Lenné narrates a case of a man, thirty-seven years of age, who acquired a severe diabetes mellitus four weeks after he was struck on the knee by a heavy piece of iron, and who died shortly thereafter. The case is notable on account of the preceding accident.

ST. PETERSBURGER MEDICINISCHE WOCHENSCHRIFT.

May 23, 1903.

1. Value of Heart Sounds Heard in the Back.
By E. MASING.

1. Heart Sounds Heard in the Back.—Masing concludes from a study of hundreds of cardiac cases, that systolic murmurs, independent of mitral insufficiency or aortic stenosis, are heard in the back distinctly, on both sides of the thorax. Slight murmurs, as in the beginning stages of an endocarditis or those which accompany the first sound, are usually not propagated. Systolic murmurs not of organic origin, the so-called accidental murmurs, are not heard in the back, but a distinct first sound may then be heard. Diastolic murmurs are usually not propagated to the back.

ZENTRALBLATT FUER GYNAEKOLOGIE.

May 30, 1903.

1. True and Simulated Extrauterine Pregnancy.
By KARL KOBER.
2. Two Cases of Repeated Tubal Pregnancy.
By KARL RIFFERSCHEID.
- June 13, 1903.
3. Important Principles in Perineal Support.
By VON BUDBERG-BÖNNINGHAUSEN.
4. Anæsthol, a New Anæsthetic.
By WALTER FOERSTER.

1. Extrauterine Pregnancy.—Kober concludes from his studies that in general the finding of a hæmatocele establishes the diagnosis of extrauterine pregnancy. In the absence of macroscopic evidences of pregnancy, the histological examination must furnish the determining testimony, although this is sometimes very difficult and only positive findings can furnish suitable proof. If the material is examined, however, in serial section, the histological proofs of pregnancy will usually be found.

3. Support of the Perinæum.—Von Budberg-Böninghausen describes the method long employed by him. It consists primarily in offering during the birth constant contact between the accoucheur, the uterus, and the child, by having the left arm of the obstetrician lying over the uterus with the fingers at the labia, the forearm making pressure with the pains. This manœuvre assists in the progress of the child and is not noticed by the woman as painful. A second feature is the production of vibratory and slightly rotatory movements by the left arm which are impacted to the back and head of the child, and thus assist in the head in moving forward. As the head appears at the vulva, it is controlled by the fingers of the left hand, the further it advances, the more fingers being called into play. Simultaneously, the perinæum is held by the right hand in the usual manner, and too great sudden tension is avoided by bringing the skin over the peri-

næum together in the median line. Special care is directed toward the birth of the shoulders, the anterior being allowed to be born first if the posterior does not easily appear. The author condemns the side position as being productive of possible dangers and as being impractical for many other reasons, such as impossibility of hearing the foetal heart sounds, the possibility of tearing the umbilical cord, etc. The method described has been used successfully in over 2,000 cases.

WIENER KLINISCHE WOCHENSCHRIFT.

May 28, 1903.

1. Memorial Address on Professor Karl von Langer.
By C. TOLDT.
2. Physiology of Voluntary Movements.
By E. ZUCKERKANDL.
3. Operative Treatment of Hæmorrhage after Amygdalotomy.
By OTTO BURKARD.
4. Physostigmine in Grave Meteorism.
By LUDWIG MOSZKOWICZ.
5. Total Perineal Prostatectomy.
By G. NICOLICH.

3. **Hæmorrhage after Amygdalotomy.**—Burkard recommends Nicoladoni's suggestion of exposing the bleeding tonsil, extirpating it and sewing the deep edges of the wound together. Tying the common carotid is in itself a dangerous procedure, and the ascending palatine branch of the external carotid, which usually gives off the tonsillar branch, is not always regular in its course, so that tying the external carotid is not always efficacious in stopping the hæmorrhage. Burkard gives detailed directions of the steps involved in the exposure and removal of the tonsil.

4. **Physostigmine in Grave Meteorism.**—Moszkowicz reports five cases of very severe meteorism following operation, which were relieved by the hypodermic injection of physostigmine salicylate in doses of one seventieth of a grain. In one case, it had the effect of a stimulant like camphor. The drug was well borne, even in the cases of two patients who were much weakened. In two of the cases, the effects of the injection seemed to save life. In all the cases, the blood pressure was raised, and no injurious effect on other organs was noted. The use of physostigmine is especially recommended in cases of postoperative paresis of the intestines, the so-called pseudo-ileus.

MUENCHENER MEDIZINISCHE WOCHENSCHRIFT

June 9, 1903.

1. New Operation for Detached Retina.
By L. MÜLLER.
2. Proteinochrome.
By P. ERDMANN and H. WINTERNITZ.
3. Significance of Hay Fever.
By A. THOST.
4. Questionable Cause of Death in a Nursling.
By LEUBUSCHER.
5. Diabetes Insipidus.
By A. WOLFF.
6. Circumscribed Tuberculous Meningitis.
By A. SÆNGER.
7. Ankylostomiasis in Coal Mines.
By IBERER, SR. and JR.
8. Massage of the Prostate and Albuminuria.
By C. KRÜGER.
9. A Case of Pure Goitre.
By DIEHL.

10. A Chloroform Mask.
11. Venereal Diseases and Prostitution.

By C. REISSIG.
By JORDAN.

1. **New Operation for Detached Retina.**—Müller suggests the operative diminution of the bulb by the excision of a small piece of the sclera, one centimetre wide by two centimetres long. By this procedure the pathological tension and distention of the retina becomes diminished and the exudation depending upon these factors becomes lessened. He records three cases which showed decided improvement after the operation.

2. **Proteinochrome.**—Erdmann and Winternitz speak of this color reaction as having bacterial and clinical value. It consists of a red violet color on the addition of bromine or chlorine to the products of proteid decomposition. It seems to be dependent upon bacterial and fermentative decomposition of proteids in the gastrointestinal tract, and is, therefore, a convenient indicator of the presence of leucine and tyrosine. It can be used to differentiate between typhoid and colon bacilli. In cultures of the latter, indol was present on the first day but no proteinochrome, while in typhoid cultures, the color reaction was constantly found after the second day, while no indol was developed.

3. **Hay Fever.**—Thost quotes Dunbar's conclusions, that hay fever is caused in susceptible persons by the toxins of certain grasses. Thost has prepared an antitoxine which is now under trial.

5. **Diabetes Insipidus.**—Wolff concludes, after a review of his cases and of the literature, that this disease is due to functional changes in the renal epithelium. In one of his cases, a striking improvement was noted after the administration of ergot.

ZEITSCHRIFT FÜR GEBURTSHILFE UND GYNAEKOLOGIE.

May, 1903.

1. Repeated Interruption of Pregnancy of Unusual Ætiology.
By L. KLEINWÄCHTER.
2. Therapy of the Gynatresias.
By J. HALBAN.
3. Adenomatous Growth of the Serosa in an Abdominal Scar.
By R. MEYER.
4. Ætiology of Tubal Pregnancy.
By MICHOLITSCH.
5. Chorionepithelioma Malignum.
By O. VON FRANQUÉ.
6. Mechanism of Birth.
By S. GOTTSCHALK.
7. Character of the Blood During Pregnancy and Birth.
By W. ZANGEMEISTER.
8. An Unusual Twin Placenta.
By SCHNELL.

1. **Repeated Interruption of Pregnancy.**—Kleinwächter regards cervical tears as an ætiological cause of abortion, and says that after the lacerations have been repaired, pregnancy often goes to term. Another cause is the remnant of former pelvic inflammations. Parametritis usually leads to sterility, but if pregnancy occurs, abortion usually follows. The author mentions as further causes of abortion, myomata, cardiac disease, hydramnios, diabetes mellitus, and emphysema.

3. **Adenoma in an Abdominal Scar.**—Meyer reports such a case in a woman in whom the right

appendages had been removed, and a ventral fixation performed. Two years later, a mass connected with the fundus and entering the scar was noted. It was excised and was found to contain epithelial cysts and canals whose origin must have been the serosa of the uterus or the parietal peritonæum.

4. Tubal Pregnancy.—Micholitsch has examined microscopically the specimens from ten cases of tubal pregnancy and comes to the conclusion that mechanical interference is the cause of the implantation of the ovule in the tube. The tubes examined showed anomalies of congenital or acquired origin, inflammatory if the latter. A constant finding was the presence of accessory lumina in the tube or accessory cavities, in which the ovum settled. The author regards this as the most frequent cause of the origin of a tubal pregnancy.

7. The Blood During Pregnancy and Birth.—Zangemeister regards the blood of pregnant women as hydræmic, urging that the plasma and the serum be separately considered. He finds that the serum possesses a lower specific gravity and proteid contents, and that the molecular concentration is lower, while the percentage of chlorides is higher than in the non-pregnant state. As far as the red blood cells are concerned, the plasma is more concentrated than usual. There is, therefore, more of a hydroplasmia than a hydræmia. Zangemeister also found the alkalinity of the blood diminished.

PRESSE MEDICALE

June 10, 1903.

1. Diagnosis of Tuberculous Meningitis, and Lumbar Puncture. By VARIOT.
2. Permanent Results from the Treatment of Stricture of the Urethra. By E. DESNOS.

1. Tuberculous Meningitis; Lumbar Puncture.—Variot discusses two cases, one of simple, and the other of tuberculous meningitis. The first patient was brought before being weaned, suffering from bronchopneumonia, with great prostration, stiffness of the neck, and double meiosis; no vomiting or paralysis. Suspicion being aroused by the condition of the neck, lumbar puncture was made, and although no cocci were found in the cerebrospinal fluid, its thick and purulent condition rendered the diagnosis of meningitis certain. The second case, a girl of nine years of age, had an encysted pleurisy of the right base, probably tuberculous, under observation for three months and now shows the following symptoms of tuberculous meningitis; marked emaciation, typical retraction of the abdomen, marked torpor, stiffness of neck, faint evidences of Kernig's sign, irregular although not slowed pulse, and the rapid formation of the typical meningitis or cerebral macula. There had been intermittent coma. Vomiting and constipation had begun three weeks before, and lumbar puncture had been made as soon as the pulse became irregular, revealing under the microscope an abundant lymphocytosis. Periods of complete unconsciousness with inability to swallow alternated with a comparatively normal condition. There have been no

ocular symptoms. Variot speaks of this as an atypical case, and says that a purely typical case, as found in the textbooks, is a rarity. In tuberculous children, an attack of whooping cough is very likely to lead to meningitis; in case of doubt as to the nature of sudden convulsions, lumbar puncture will clear the diagnosis. Often there are no definite warning signs of an attack of tuberculous meningitis. The child will pine, vomit perhaps, but not till there is an ocular paralysis or a convulsion will suspicion be aroused. In view of the danger of attributing vomiting, etc., to dentition or indigestion, lumbar puncture should be resorted to more frequently than is customary. The author however has diagnosticated tuberculous meningitis when the cause of the symptoms was found to be worms. Other common false diagnoses are pneumonia, typhoid fever and dothien-enteritis. One of the author's cases of hysteria in a girl, aged ten years, simulated meningitis, and only the negative results of lumbar puncture led to the proper treatment by suggestion. Rheumatism in the cervical region may be deceptive, and two cases of thrombosis of the sinus excited alarm. Variot clears up the diagnosis in all such cases by lumbar puncture, which he praises highly as a genuinely scientific procedure. His method is to lay the little patient on his side, the trunk flexed on the pelvis, and after the customary aseptic precautions, the needle, in the lumen of which is a silver wire just touching its bevelled end, is pushed into the space between the fourth and fifth lumbar vertebræ. When the wire is withdrawn, the fluid may ooze out drop by drop, or be forced out in a stream. Occasionally it must be aspirated with a Pravaz syringe. It is collected in a special tube and centrifugated with Krauss's apparatus. The deposit is dried, stained with Unna's blue or otherwise, and submitted to the microscope. The process is particularly valuable in the early stages of the disease when diagnosis is especially doubtful.

2. Strictures of the Urethra.—Desnos begins by speaking of the great varieties of urethral stricture from what is hardly more than a mere fold in the mucous membrane to a huge, indurated mass which may project through the perinæum. Treatment must vary in such cases. As regards the calibre of a stricture, he would distinguish between those which modify the stream of urine and those which do not. The latter can be diagnosticated only by a ball pointed sound, and is present if any but the natural physiological resistance is opposed to the sound's entrance. Such large calibre strictures are important, and when first forming may be cured by the passage of sounds alone. In the author's experience, resection of the urethra, properly followed up, is the best all round treatment; next comes a series of urethrotomies on all sides of the urethra; forcible divulsion and dilatation are good in slight cases; Newmann's electrolysis is excellent, but slow; and of linear electrolysis, he does not approve. Dilatation should be thorough, to the diameter of one centimetre at least. In using Newmann's electrolysis, Desnos has replaced the olive-pointed bougie by a Béniqué's sound, and uses a current of about 4 milliampères. His results in cases that resisted other methods of treatment have been excel-

lent, but in a few instances, the treatments have extended over a year, and in all demanded the most exemplary patience on the part of surgeon and sufferer.

JOURNAL DE MEDECINE INTERNE.

May 15, 1903.

1. Differential Diagnosis of Paralysis of the Cranial Nerves. By M. RAYMOND.
2. Headaches. By M. LE GENDRE.
3. Two Cases of Myxœdematous Idiocy. By JULES VOISIN.
4. Rachidiagnosis in Hæmorrhage of the Cerebrum and Meninges. By F. WIDAL.

2. **Headaches.**—M. Le Gendre says that headaches in children may be caused by constipation, by hyperchlorhydric dyspepsia, and by a meat diet. The treatment in these cases is directed against the cause. Family migraine may also be met with in children. In boys, headaches, accompanied by lassitude and lack of energy, may be found to be due to masturbation. Adenoid vegetations, as well as errors of accommodation are also responsible for headaches. Sometimes too rapidly growing children develop headaches, and for them the treatment is a complete change in surroundings and activities and the instalment of a suitable hygiene.

Le Gendre next discusses migraine in adults and speaks of its manifold causation. In the treatment of this condition, he advises good nourishment, the avoidance of excesses of all kinds and abstinence from overwork. Antipyrine is recommended for the pain, or bromides, or caffeine, or a combination of these. Other sources of headache in adults are syphilis, lead poisoning and functional disturbances, especially of the liver. Intracranial growths may be the causative factor, and there are also some headaches in elderly persons, which are not classifiable, but which appear to be rebellious to all treatment. The last mentioned are best treated by a change of surroundings and by sedative drugs.

REVISTA DE MEDICINA Y CIRUGIA PRACTICAS.

June 7 and 14, 1903.

1. The Battle of the Organism Against Tuberculosis and its Immunization. E. MARAGLIANO.

1. **Immunization Against Tuberculosis.**—Maragliano discusses the natural defenses of the body against tuberculosis and the creation of artificial immunity to the disease. He holds that tuberculous poisons are not only secreted by the bacilli during the time of the biological activity, but that other toxines reside within the protoplasm of their bodies, by means of which the dead bacilli produce changes in the body tissues analogous to those produced by living bacilli. In the struggle of the body to overcome the influence of the bacilli, Maragliano considers the neutralization of these poisons of prime importance, upon the ground that if these poisons are not counteracted, they so alter the tissues as to render them more fitting soil for the development and multiplication of the bacilli. Through his laboratory work upon tuberculous poisons, he has succeeded in obtaining a substance having one hundred

toxic doses to the cubic centimetre, *i. e.*, a subcutaneous injection of one cubic centimetre of this substance invariably killed a guinea pig weighing one hundred grammes. Being thus provided with a specific poison of definite dosage, he sought by means of it to ascertain whether the healthy organism was possessed of means of defense against tuberculous toxines. To this end he experimented with the serum of healthy men and found that a dose of the tuberculous poison known to be mortal for a guinea pig, is no longer so, if first mixed with healthy human serum. He also found that such serum, added to cultures of Koch's bacilli, would retard or check their development. His work has further shown that after determination, by his methods, of the antitoxic power of an animal's blood toward tuberculous poisons, small, repeated injections with these poisons increase, to a marked degree, the antitoxic power of the blood. In his belief, injection of the dried bodies of the bacilli into animals has the power of inducing development in the organism of the greatest quantity of specific bacterial substance; though injection of the blood of immunized animals has also raised the antitoxic power against tuberculous infection in animals; and the author has also used such injections in man; the agglutinating power being tested, as an index of the immunization process, and found increased after the injections. The clinical fact that healing of a localized tuberculous focus, such as a tuberculous lesion of the skin, leaves the patient, as a rule, immune to tuberculosis, has led the author to the belief that immunization might be obtained by producing a circumscribed focus of tuberculosis upon the skin. He has succeeded in preparing a material which, having the properties of the living bacteria without the danger of infection from them, causes, when inoculated under the skin, a tuberculous phlegmon. Intravenous injections of virulent culture, fatal to check animals, fail to affect animals so treated. The author has applied this method of treatment in man and has succeeded in increasing the agglutinating power to a high degree and, at the same time, a marked leucocytosis has been seen as a result of this treatment.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

May 10, 1903.

1. The Cause of a Disease Prevalent in Hens. By G. CATTERINA.
2. Infantile Anæmia after Vaccination. By MARIO BELLOTTI.
3. The Suturing of Arteries. By A. SALOMONI.
4. On Uterine Dilatation by Bossi's Method. By LEOPOLDO MEYER.
5. On Serumtherapy in Pulmonary Tuberculosis. By FERRER PIERA.
6. On Iodipin. By G. CAMPANELLA.
7. On an Acute Case of Rheumatic Tetanus. By ARMANDO BUSSI.
8. The Value of the Ehrlich Diazo-Reaction. By LUIGI CAMURRI.

1. **A New Parasite in Hens.**—Catterina observed an epidemic in chickens, which at first was taken for the disease known as chicken cholera.

This disease was very contagious in hens. The author discovered in the blood of the affected birds a parasite which he proved to be the ætiological factor of the disease. This parasite is spherical, ovoid, or pyriform in shape, and at first the author thought that it was a protozoon, but it is very difficult to fix and to stain with the various dyes. He found on investigation that these spherical bodies were the spores of a mold that belonged to the family mucidineæ, and to the genus penicillium, and that these molds, as well as their spores, were present in the tissues and fluids of hens that had died of the disease in question. He found further that the disease could be reproduced by the injection of pure cultures of this parasite.

2. Anæmia After Vaccination.—Bellotti calls attention to the fact that vaccination with glycerinated lymph produces in some children an anæmia which lasts about a year after the inoculation of vaccinia. This anæmia is solely due to the vaccination, and has not been described heretofore.

3. Method of Suturing Arteries.—Salomoni describes the method of suturing arteries which he has devised and with which one of his pupils, Tomaselli, has experimented. The principle of this method is that the endothelial coats of the arteries should be brought together and united, so as to prevent other elements of the walls of foreign substances from coming into contact with the blood current. In the method described particular stress is laid on this point, considered of so little importance by other writers. To obtain larger endothelial contact surfaces, Tomaselli makes longitudinal incisions in both arterial stumps, reflects the coats, and sutures them as the plumber unites metallic pipes. The present author's procedure consists essentially in the following steps: (1) Exposure of the artery. (2) Isolation of the vessels as in ligating. (3) Provisional hæmostasis by serres-plates. (4) Suture of the vessel with very fine round needles (as for enterorrhaphy) and with very fine silk, transfixing the walls from without inward at one edge of the wound, and from within outward at the other edge. Permanent hæmostasis, removal of the serres-plates (clamps), compression of the site of the suture, with the finger if needed. Closure of the wound in layers, beginning with the sheath of the artery. Suture of the arteries is indicated, not only in wounds of vessels, but also in aneurysms, and has now been applied even on the aorta and the vena cava. R. Matas, in the *Annals of Surgery* for February, published a method of suturing aneurysms that was very similar to that described by Salomoni.

4. Obstetric Dilator.—Meyer describes the use of Bossi's dilator which he has used in his clinic since September, 1901. He believes that this instrument is a valuable addition to the armamentarium of obstetrics. Zangemeister, of Leipsig recently stated that the uses of this appliance were limited and advised against its employment in dilating the uterine os. Meyer agrees with Zangemeister, however, that the obstetrician is usually called when the woman has already lost much blood, and when it is not desirable so much to complete the labor as

to arrest the hæmorrhage, for which purpose the Champétier bag is sufficient. But, for a rapid delivery, when indicated, and as a safe instrument to use without fear of lacerating the cervix or injuring the foetal parts, Bossi's dilator should be given the preference. Tarnier's "stimulator" should not be used, as it causes the worst lacerations. Bossi's dilator should be preferred to Kaiser's, because, although the latter has eight blades, it is so short that the cervix cannot be palpated at the same time with the exploratory finger.

5. Serumtherapy in Tuberculosis.—Piera, summing up his experience with Maragliano's serum, says that he has obtained cures in his cases with circumscribed lesions, without cavities, with or without fever, and also in cases with diffused superficial inflammation. In the cases of diffuse infiltration, with or without fever, a long course of treatment may effect a cure. In the type with formation of cavities no cure can be expected. This Spanish observer (from Barcelona) regards Maragliano's serum as the most efficient specific method of treating tuberculosis which has been thus far devised.

7. Acute Rheumatic Tetanus.—Bussi reports the case of a boy, aged sixteen years, who was seized with a severe attack of tetanus resulting in his death, without having previously sustained any traumatism. The author classes this case as one of "rheumatic tetanus," using a term suggested by Carbone and Perrero. The bacillus of tetanus in these cases is supposed to enter the body through the respiratory organs, the tonsils, the nose, or the bronchi. Carbone and Perrero were able to demonstrate the presence of the bacillus of Nicolaier in the bronchial passages of patients who had died of this form of tetanus. This form is less grave, as a rule, than the traumatic, because the bacillus of tetanus in its aerobic state produces less virulent toxines than it does when it grows in the tissues in the exclusion of air.

8. Diazo-Reaction.—Camurri concludes from his study of the value of this reaction as follows: The diazo-reaction does not occur in normal urines. It is constant in typhoid fever, and has a diagnostic and prognostic value. It is, besides, of prognostic value in tuberculosis.

RIFORMA MEDICA.

May 20, 1903

1. The Treatment of Echinococcus Cysts of the Liver by Bacelli's Method. By D. PIRRONE.
2. Attempts at a Chemical Vaccination Against Anthrax. By A. PALADINO-BLANDINI.
3. On the Diagnosis of an Abdominal Tumor. By G. ZAGARI.

1. Bacelli's Treatment for Echinococcus.—Pirrone reports three cases of echinococcus cysts of the liver in which he employed Bacelli's method, which, according to Pirrone, is the method of election in the treatment of these cysts. It comprises the aspiration of a small amount of the cyst con-

tents, followed by the introduction of a somewhat smaller amount of solution of mercuric chloride in the strength of 1:1000. By removing only a small amount of the cystic fluid the danger of hæmorrhage into the cyst cavity is avoided, and the parasiticide which is injected afterward, causes the death of the hydatids. Then follows the gradual and complete reabsorption of the cyst contents and the consequent shrinking of its walls, together with the reduction in the size of the liver.

If a single injection does not suffice to destroy the cysts, then two or three injections should be resorted to, and each time a small amount of fluid is to be first removed. The method is contraindicated when there is a suppurative process within the cyst, as also, when there are numerous daughter-cysts developing from the mother cyst. Surgical intervention is then needed. Baccelli's treatment also fails with thick cyst walls. When the cyst is single and its contents are sterile, this method is the ideal one. In aspirating it is important to bring the anterior wall of the abdomen in close contact with the cyst wall, in order to avoid penetration between the leaves of peritonæum. In injecting the solution the needle should not be too fine lest it clog. The method is easily applied by any physician skilled in diagnostic aspiration. The results obtained in the three cases reported here and in the majority of cases reported elsewhere were highly satisfactory, and Baccelli's method may be regarded, according to the author, as the best mode of treating all cases of echinococcus cysts not demanding an operation.

2. Chemical Vaccination Against Anthrax.—

Paladino-Blandini reviews the history of anthrax immunization since Pasteur, in 1880, announced his anti-anthrax inoculations. The disadvantage of Pasteur's method was that the anthrax germs used by him for injection were deprived of their property to generate spores and had their resistance lowered, so that when the cultures were sent to a distance, the germs became so attenuated that the injections no longer proved efficient. Chauveau sought to modify this method by various methods, such as oxygen under pressure, etc., whereby the germ was rendered less virulent, but still remained capable of forming spores and was not too greatly attenuated after a reasonable length of time. But Chauveau's cultures at times proved to be two-edged swords, for the bacteria could multiply in the blood and regain their virulence after injection. This made the discovery of a chemical method of immunization desirable, and various observers, notably Haffkine, have attempted to make a chemical immunizing agent for anthrax. The present author has tried to prepare such a substance, but all his results were negative.

3. A Fœtus in the Abdomen of a Man.—

Zagari reports a case which should be classed among the curiosities of medicine. It is the history of a man who entered the hospital with an abdominal tumor, the exact nature of which was unknown. Exploratory laparotomy was decided upon, and revealed a cystic sac situated between the leaves of the mesentery and in contact with the stomach and liver as well as with the colon, its walls lined with numerous and large blood vessels. This sac contained a quantity of thick pus-like fluid and the

skeleton of a fœtus which was fairly well developed. The man was fifty-five years of age and had given a history of gradually increasing swelling of the abdomen, which gradually became so marked that it impeded respiration. The case had been thought to be one of slowly growing cyst of unknown origin, and the fluid had been aspirated on one occasion, about a year before the operation, the removal of the fluid giving the patient temporary relief. During the laparotomy there was a sudden and uncontrollable hæmorrhage from the walls of the cyst, and the patient died on the following day, the operation not having been completed. The fœtus was removed at autopsy. The fœtus consisted of hard and of soft parts, and was about 29 centimetres in length. The trunk was conical in form, with the base pointing upward, and was made up of a compact mass of bones, which contained a spongy portion and a compact portion. There was a prolongation of bones upward, corresponding to the cervical vertebræ. The femora and the legs were well developed and the feet were largely cartilaginous, with a few osseous nodules. The thoracic girdle was marked by the presence of one clavicle, and the head only by two perfectly developed incisor teeth. It is difficult to say what the origin of this peculiar monstrosity was, but in general the author regards it as a form of dermoid growth, analogous to dermoid cysts of the ovaries in women. Modern biology has found that fecundation, though necessary to the majority of organisms for reproduction, is not essential in all, and that generation by parthenogenesis is possible in a series of vertebrates. If the cells of Pflüger's tubes are endowed by some accident with a special faculty of new-growth formation and differentiation, they are capable of forming the most complex tissues and organs without fecundation. This may be the explanation of the origin of dermoids, at least of those of the ovaries. In the present case the presence of a fœtus within a man cannot, of course, be attributed to a freak of fecundation or to an unusual action of the ovarian epithelium, but it is most likely that the contents of the tumor was a fœtal inclusion, a structure which was present in germ within the fœtus of the patient. In all probability two fœtuses were in the course of development within the same ovum, and one of these became detached and was included in the abdomen of the other, and as the placental blood supply did not furnish the included "brother" with sufficient nourishment, he became a parasite. A few cases of similar nature are on record in literature in younger patients. The Röntgen rays may be useful in the diagnosis of such cases. The literature of the subject and the various embryological theories pertaining to such cases are discussed at length in this article.

The Mosquito in New Orleans.—There has been considerable opposition among the laity in New Orleans to an organized campaign for extermination of the mosquito as a conveyer of malaria and yellow fever. Fear is expressed lest the city be thought uninhabitable by travelers. Some 20 per cent. of the physicians appear to consider the mosquito theory of infection as not proved, but all agree as to the advisability of a campaign against cesspools and stagnant water.

ROUSSKY VRATCH.

Saturday, May 10, 1903.

1. On the Influence of Poisons upon Gaseous Exchange.
By N. P. KRAVKOFF.
2. Liquid Glass as an Injection Mass for Macroscopical Preparations of Blood Vessels.
By S. N. YASHTCHINSKY.
3. On So-called Surgical Scarlatina (*Concluded*).
By B. P. GERASIMOVITCH.
4. On the Pathological Anatomy of Neuropathic Spondylitis (*Continued*).
By G. J. TROSHINE.
5. Essentucki. Season of 1902 (*Continued*).

1. Action of Poisons on Gaseous Exchange.

—Kravkoff says that poisonous substances produce certain toxic effects upon all the cells of the organism, but as the action of toxic agents is more marked in some tissues and organs than in others, we commonly regard the effect of a poison chiefly from the point of view of this, its selective or specific action. On the other hand, in order to be acquainted with the actual effect of a poison upon the animal body, we must study also its general action on the protoplasm, as well as upon some processes directly affecting the life and function of protoplasm. This is the purpose of studying the effects of a poison upon gaseous exchange, for the further removed from the normal standard is the gaseous exchange of an organism which has been poisoned, the more marked is the effect of the poison upon the life of the protoplasm. The author has studied the effects of a variety of strong poisons upon the amount of oxygen used and the amount of carbon dioxide eliminated by animals. He finds that potassium cyanide causes a sharp decline in the gaseous exchange, in spite of the violent dyspnoea and convulsions which this poison produces. Strychnine, on the other hand, raises the gaseous exchange quite considerably, increasing the amount of oxygen used up almost three times as compared to the normal. In spite of the fact that the symptoms of strychnine poisoning and those of prussic acid poisoning, are so similar, strychnine produces exactly the opposite effect on gaseous exchange to that produced by HCN. It is possible that the tonic property of strychnine lies, not only in its capacity to stimulate nerves and muscles, but also in its stimulation of the gaseous exchange of the body. Atropine poisoning also markedly increases the gaseous exchange, especially the amount of oxygen taken in, raising the temperature of the body incidentally. This increase in the gaseous exchange is noticeable even in animals that are not susceptible to atropine and do not show any signs of atropine poisoning with certain toxic doses. This shows that the organism may be affected without any specific symptoms being noted: that the internal respiration of the cells may be disturbed by poisons without any external signs of the disturbance. The antagonistic action of atropine against morphine is partly explained because it counteracts the lowering of the gaseous exchange produced by morphine. Digitalin increases the amount of oxygen consumed by the tissues, but not the amount of carbon dioxide eliminated, while strychnine and atropine increase both factors of gaseous exchange. Pilocarpine, in contrast to atropine, considerably lowers the consumption of oxygen. The poisons of the fatty series and morphine and its derivatives lower the gaseous

exchange, so that morphine, codeine, heroine, diosmine, etc., decrease the amount of oxygen consumed and the amount of carbon dioxide eliminated; in other words, these substances act as antagonists to strychnine and atropine. The author calls attention to the importance of studying the action of remedies upon gaseous exchange, inasmuch as it throws light upon the effect of these substances in therapeutics.

2. Liquid Glass as Injection Mass for Vessels.

—Yashtchinsky calls attention to the advantages of liquid glass (a saturated solution of the silicate of potassium) over wax as an injection mass in macroscopical preparations. So far as he knows, no one has mentioned this application of liquid glass in literature. In order to give liquid glass the proper consistency and the capacity to solidify quickly, powdered soap and prepared chalk are added, the latter being previously colored in the desired tone, by carmine or ultramarine blue. The mass may be prepared in a few minutes, when needed, for it is easy to keep its ingredients separately. The best instrument for injecting this mass is Teichmann's syringe with the screw-piston, which regulates the rate of injection and prevents laceration of vessels. The mass is cheap and the preparations are not altered by changes of temperature.

3. Surgical Scarlatina.—Gerasimovitch studied forty-four cases of surgical scarlatina which occurred among 2,000 patients in the surgical division of a hospital during a period of five years. The period of incubation in his cases was very short, from one to three days, and the same was noted by other authors. In one case the period was one day. Surgical scarlet fever is distinguished by a mild course. Only 3.7 per cent. of the cases of true surgical scarlet fever had, for example, a gangrenous amygdalitis. In ordinary case of scarlet fever gangrenous amygdalitis occurs much more frequently, viz., in 50 per cent. Vomiting occurred in only 4 per cent. of the surgical cases of scarlatina, while in the other form of the disease it reached 53 per cent. Of 27 cases of surgical scarlatina there was not a single death from the disease itself, while but one patient died of suppuration in the mediastinum complicating tracheotomy. Medical scarlatina give 20 per cent. mortality on the average. The operations which preceded the attacks of scarlatina were of various kinds, but in the majority of cases the wounds suppurred, failed to heal, and the sutures gave way, etc. The author thinks that the mild scarlatinal rashes that occur after the injection of diphtheria antitoxine are not antitoxine rashes but cases of mild surgical scarlet fever caused by infection entering at the site of the puncture. He concludes that the wounded are specially predisposed to scarlatina, that the infection coincides with the moment of trauma, and evidently enters through the wound; that the chief characteristics of surgical scarlatina are a short period of incubation, a mild course, and a low mortality, an initial fever, a rash and a desquamation beginning at the wound, and the absence of throat complications. In children, scarlet fever must be classed as a wound infection which may occur like erysipelas and tetanus. In many cases of scarlatiniform rash due to diphtheria antitoxine, we have to deal with a surgical scarlatina.

BOSTON MEDICAL AND SURGICAL JOURNAL.

July 2, 1903.

1. Surgical Tuberculosis. By HERBERT L. BURRELL.
2. The Clinical Associations and Significance of the Cardiopulmonary Murmur. By JAMES J. PUTNAM.
3. Nasal Polypi. A Study of One Hundred and Forty-seven Cases. By J. PAYSON CLARK.

1. **Surgical Tuberculosis.**—Burrell considers the subject under the following head: (1) Prevalence; (2) diminution; (3) pathological considerations; (4) sanatoriums; (5) construction of sanatorium; (6) hospitals; (7) out-door treatment of tuberculosis; (8) tent treatment; (9) home treatment; (10) effects of sunlight and electric light; (11) defects of hospital construction. The author's paper is quite long and contains many illustrations of tents and shanties suited to the out-door care of patients suffering from tuberculosis. We can only call attention to a few of the author's beliefs and suggestions. (1) At the present time from 80 per cent. to 90 per cent. of men and women who reach the age of forty years have had some form of tuberculosis. It is, therefore, not rational to consider the disease as one of malignant character, for, if it were, the human race would long ago have been swept from the face of the earth. (2) The disease is far less prevalent than it used to be, as is clearly shown by the statistics from most civilized countries. In Prussia, for instance, if the present rate of decrease is maintained, pulmonary tuberculosis will have disappeared by the year 1937. The rapid fall in the Prussian rate has been ascribed to (a) the precautions against infectious diseases; (b) the improved conditions of the working classes, caused by the Workmen's State Insurance Laws; and (c) the establishment of sanatoriums. The effect of overcrowding is well shown in certain French statistics which show tuberculosis to be as much as four times as frequent in the large cities as it is in the villages of less than 5,000 inhabitants. (3) The author's remarks on the pathology of tuberculosis present nothing that is new. (4) The principles of sanatorium treatment of tuberculosis, or indeed of any treatment of the disease, demand the subjection of the patients to (a) continuous exposure to fresh air; (b) abundant sunlight; (c) regulated rest; (d) controlled exercise and abundant feeding; (e) obedience to hygienic requirements, and (f) strict medical supervision. Germany is the best equipped country in the world for the treatment of tuberculosis. She has 57 public sanatoriums, with a total capacity of a yearly three months' treatment for 20,000 people. In France, especially, has an effort been made to treat systematically so-called surgical tuberculosis, and the results have been very encouraging. Lalanne, who has charge of the Cape Breton sanatorium, reports that of all the patients received, 71 per cent. have been cured. They seek to cure debilitated constitutions, and only intervene surgically when it is absolutely necessary. We cannot take up all the other subheadings of the paper we abstract. The author's whole teaching enforces three things: (a) Physiological rest to the parts; (b) pure air and sunlight; (c) ample nutrition to the tissues to check the progress of the process. He does not be-

lieve that sufficient thought is given in modern hospital construction, to the all importance of sun and air. In a recently built model hospital in New England, for the exclusive use of tuberculous patients, he found most of the buildings with a southern exposure devoted to reception rooms and administrative offices, while the upper story and the roof were used for the laundry. The patients were mostly in rooms with a northern exposure.

2. **Cardiopulmonary Murmurs.**—Putnam finds that the cardiopulmonary murmur has been regarded by most physicians as of somewhat accidental occurrence, indicating, perhaps, some unusual relationship between the heart and the lungs, but of no clinical significance, except in so far as it was apt to be mistaken for a sign of valvular lesion. The murmur, it is asserted, is due to compression or aspiration of a piece of the lung by the contracting heart. The author dissents from this view and believes that the murmur should be classed with the numerous peculiarities or stigmata which are so often met in neuropathic persons, which, however, are not always present, nor, if they are, do they imply of necessity a neuropathic constitution. The true cardiopulmonary murmur is very rarely to be detected in vigorous persons of either sex, even when such persons are temporarily ill. On the other hand, it occurs with relative frequency among markedly neuropathic and asthenic males.

3. **Nasal Polypi.**—Clark believes that the best way to remove nasal polypi is by the cold wire snare. He does not believe in cauterizing the pedicles with either the galvanic current or acids. He has tried the application of 95 per cent. alcohol and found it of some benefit. He writes to emphasize the following points: "(1) The question of a previous injury to the nose is to be considered in the ætiology of polypi. (2) Probably only a small proportion of cases are caused by sinus disease (usually ethmoiditis). (3) A local vasomotor disturbance, which may be of constitutional origin, stands in a causative relation to polypi in a certain proportion of cases. (4) The removal of the whole middle turbinate will be found necessary in many cases where the growths are diffuse. (5) Many cases of nasal polypi can be cured if patients will return for treatment, as instructed."

AMERICAN MEDICINE.

July 4, 1903.

1. The Occurrence of Painful Affections of the Feet Among Trained Nurses. By ROBERT W. LOVETT.
2. Sixty-eight Reasons Why "Glasses Did Not Give Relief." By GEORGE M. GOULD.
3. Funnel Chest, with Report of Two Cases. By FLORENCE HARVEY RICHARDS.
4. The Early Diagnosis of Pregnancy. By J. J. GURNEY WILLIAMS.
5. Hæmorrhage Following Tonsillotomy, with Report of a Serious Case. By ADOLPH H. URBAN.
6. What are the X Rays? By J. RUDIS-JICINSKY.
7. The Medical Institutions of Madrid. By NICHOLAS SENN.

1. Painful Feet in Nurses.—Lovett, from the study of a series of 500 observations upon both normal and disabled feet, draws the following conclusions: (1) It has not been possible to tell with any certainty by examination whether or not the feet of an individual are likely to give trouble. A foot with a well distributed pressure area is rather less likely to give trouble than one resting on two islands. The degree of pronation, the condition of the circulation, the relative weight of the nurse, and the dorsal flexibility of the foot were all data of no value to the author in his attempt to make a prognosis. A flat foot may be perfectly serviceable, as may also a severely pronated one, while an apparently well balanced one may become painful. (2) The factors that caused the nurses' trouble with their feet had their origin more in the nurses' general condition than in the shape of their feet. (3) The trouble was caused by a rolling in of the foot and a shifting inward of its weight-bearing areas and not, in any case observed, by the breaking down or even lowering of the arch. (4) Although proof by figures is lacking, it is probable that the amount of trouble has been decidedly less than it would have been without a proper boot.

2. "Why Glasses Did Not Give Relief."—Of Gould's 68 reasons why patients suffering from certain symptoms are not relieved by glasses, we find that ten "reasons" are ignorance or lack of skill on the part of the oculist, and that fifteen more "reasons" are lack of proper equipment, or lack of skill in its use.

3. Funnel Chest.—Richards reports two cases. The patients were sisters. One of the cases was quite severe, but was benefited by breathing exercises and gymnastics. The condition is usually congenital; occasionally it may follow Pott's disease or rickets.

5. Hæmorrhage After Amygalotomy.—The case that is reported by Urban occurred in a boy only seven years of age. Six hours after amygdalotomy had been performed the child was in normal condition. The bleeding, which nearly proved fatal, started probably some twelve or eighteen hours after operation. The boy was not a "bleeder."

MEDICAL RECORD.

July 4, 1903.

1. Arterial Sclerosis as a Cause of Nervous Diseases.
By M. ALLAN STARR.
2. The Anatomy of Portal Anastomosis.
By ROLFE FLOYD.
3. Synopsis of Experiments on the Transformation of Circulating Uric Acid in the Organism of Man and Animals.
By ALFRED C. CROFTAN.
4. How may we Cure Posterior Displacement of the Uterus?
By AUGUSTINE H. GOBLET.
5. Tent Life for Consumptives. By J. EDWARD STUBBERT.

1. Arterial Sclerosis and Nervous Diseases.—Starr does not believe that sufficient stress has been placed on arterial sclerosis as an ætiological factor in various nervous diseases. He divides the con-

sideration of his subject into five parts, as follows:

1. Diseases of undoubted sclerotic origin. (a) Hemiplegias due to either hæmorrhage or thrombosis. In adults the sclerotic basis of these affections is too well understood to need comment. The author calls attention to the fact that inherited syphilis is capable of producing an obliterating endarteritis in children, and he believes that a considerable proportion of hemiplegias in children, occurring during the first and second year, are of the same nature as those occurring in adults; that is, they are due to the rupture of a sclerosed artery. From a study of two hundred cases of apoplexy which occurred consecutively in his private practice, Starr concludes that distinct prodromata may be expected in 80 per cent. of all cases that will end by an apoplectic seizure. These general symptoms are of such a nature that they form the clinical picture of neurasthenia. Arguing by inversion, he arrives at the conclusion that many, not all, cases of neurasthenia are an expression of imperfect nutrition due to arterial sclerosis. 2. Diseases of the spinal cord. It is not so well known as it should be that many of the spinal cord diseases are of sclerotic origin. A few of these diseases may be classified as follows: (a) Anterior poliomyelitis, bulbar paralysis, and ophthalmoplegia. These analogous diseases own two sources of origin. First, an undoubted number of cases are due to an infection. Secondly, rupture or thrombosis of some branch of the anterior spinal artery supplying the anterior gray horn of the spinal cord, has been proved, at times, to be the cause of the lesion. (b) What has been said of these three diseases may be said of myelitis, whether of the disseminated or transverse varieties. (c) The following diseases caused by malnutrition of the spinal cord owe their origin to either arteriosclerosis or obliterating endarteritis, spastic paralysis (Erb's syphilitic paraplegia); senile paraplegia; combined sclerosis. 3. Diseases of the peripheral nerves. Some sudden cases of brachial and sciatic neuritides have been demonstrated to be due to hæmorrhage into the nerve trunks. 4. Certain forms of spinal neurasthenia. This group of symptoms can be considered as corresponding to the prodromal symptoms of cerebral apoplexy. 5. Various forms of neuralgias. The probability of their being due to malnutrition consequent on arterial sclerosis is rendered probable by the fact that they are improved by measures directed to correct the arterial condition. Starr thinks that it is not improbable that the arterial tension is regulated by means of an internal secretion. He has found that thyroid extract has a potent influence in reducing pulse tension, and is of great benefit in any cases of malnutrition due to high tension and arteriosclerosis. He believes that it is not impossible that some cases of high tension are due to lack of activity of the thyroid gland.

2. Portal Anastomosis.—Floyd briefly describes: (1) The liver circulation in the fœtus at term; (2) the changes in the liver circulation at birth; (3) the sites of anastomosis between the portal and systemic veins in the adult.

3. The Transformation of Uric Acid in Man.—Croftan thinks that uric acid circulates as uric

acid in man. His experiments were undertaken with the view of attempting to answer the following questions: (1) Where (in what organ) is uric acid destroyed? (2) How is uric acid destroyed? (3) What becomes of uric acid? A large number of conclusions are appended to his paper. We note only: (a) That he believes that during life the liver, kidneys, blood, and spleen secrete an unorganized ferment that has the power of destroying uric acid. (b) That bulk for bulk, the kidneys have the power of destroying the most uric acid, but that the muscles, owing to their greater mass, actually exert the most influence. (c) That there is much evidence to show that the function of certain organs that destroy uric acid is also to destroy fats and sugars. From this he concludes that there is, probably, a pathogenic relationship between obesity, diabetes, and the uric acid diathesis.

MEDICAL NEWS.

July 4, 1903.

1. The Struggle of the Body Against Tuberculosis and Its Immunization. By EDOARDO MARAGLIANO.
2. Tuberculosis in the Tenements; A New Use for Fire Escapes. By ALFRED MEYER.
3. Societies for the Prevention of the Spread of Tuberculosis. The Necessity of Such Organizations and the Work to be Accomplished by Them. By F. M. POTTINGER.
4. The Sanatorium Treatment of Tuberculosis (*To be continued*). By HERBERT MAXON KING.
5. Tuberculosis of the Middle Ear, with the Report of a Case. By Z. L. LEONARD.
6. The Present Status of Some of the Problems of Tuberculosis. By JOHN L. HEFFRON.

1. **The Body Struggle against Tuberculosis.**—Maragliano's paper is devoted to the exposition of the results obtained in the study of immunity from tuberculosis, at his institute at Genoa. He asserts that he has been able to obtain, not only passive immunity, but also active immunity, in man as well as in animals. He is now at work on the problem of vaccination against tuberculosis. While his last problem has not as yet been completely solved, yet the results are more than promising. The proof or disproof that animals have been successfully immunized is easily obtained by injecting them with virulent tubercle bacilli. In the case of man the proof must be obtained indirectly, as it is not justifiable to inject living cultures into him. If all the author's claims are confirmed by other observers his discoveries will prove of the greatest importance.

3. **Anti-Tuberculosis Societies.**—Pottenger reviews the work that has been accomplished in different parts of the world in the crusade that is being carried out against tuberculosis. The success of the measures that have been adopted is shown by the statistics of the total mortality from tuberculosis per mille of living inhabitants in different countries of the world. In Moscow and St. Petersburg, for example, where little or nothing has been done, the mortality is about 45 to 10,000 inhabitants, while in England, where the fight has been carried on systematically for the longest time, the mortality is only about 17 to 10,000 inhabitants.

MISCELLANEOUS.

Cicatricial Laryngeal Stenosis.—M. Sargnon (*Lyon médical*, May 17th) reports the case of a boy of 10 years of age, who suffered with a staphylopharyngeal tuberculosis with acquired syphilis, and who had a cicatricial stenosis of the larynx. He dilated the larynx by intubation, and subsequently performed a prosthetic operation. In considering the features of this and similar cases, the author says that, in a general way, it may be stated that in cases of cicatricial stenosis of the larynx and of the superior portion of the trachea, O'Dwyer's tube should be inserted if the stenosis is not too tight. If the stricture is very small, dilatation by means of the tube must be kept up after section of the obstacle. Introduction of the tube is contraindicated in cases in which the tube is badly borne, as when pain is caused by it in nervous subjects and when the tube is frequently dislodged; also when the constriction of the pharynx and the superior opening of the larynx offer serious difficulties, or when the tracheal stenosis cannot be overcome by the tube.

Subcutaneous Injection of Gelatin for Hæmorrhage.—M. Marcel Labbé and M. G. Froin (*Presse médicale*, May 20th) have made a number of experiments to test the efficacy of gelatin subcutaneously employed to stop hæmorrhages. They find that the coagulability of the blood is not affected by the gelatin, sometimes being retarded, sometimes hastened. The gelatin is very slowly absorbed; its injection causes pain, and is not infrequently followed by tetanus. They conclude that its employment as a therapeutic measure should be abolished.

Bossi's Dilator.—Dr. Jentzer (*Zentralblatt für Gynäkologie*, May 9th) reports the use of Bossi's instrument in a severe case of eclampsia. A living child was secured, but the cervix was so badly torn that it required suture. The patient died the following day, and the autopsy discovered the presence of an acute parenchymatous nephritis.

Complications of Dermoid Cysts of the Ovary.—Dr. Ahrens (*Zentralblatt für Gynäkologie*, May 9th) reports three cases of dermoid cyst of the ovary, all of which presented unusual complications. In the first case, the cyst was suppurating, a process secondary to a mastitis from which the patient was suffering; in the second pregnancy was present; and in the third case, a torsion of the pedicle was found. Despite the gravity of the cases, the patients all recovered after operation.

Treatment of Depression of the Skull in the Newborn.—Dr. P. Baumm (*Zentralblatt für Gynäkologie*, May 9th) suggests that in cases in which the new-born infant presents a depression of the skull due to injury during birth, a small corkscrew be inserted into the depression and the depressed portion of the skull drawn up to make it symmetrical with the rest of the cranium. He reports four cases in which he has tried this method. Two of the children died from intracranial hæmorrhage which had no relation with the procedure, and two recovered.

Letters to the Editor.

APPENDICULAR INFLAMMATION AND OXYURIDES.

PERTH AMBOY, N. J., June 24, 1903.

To the Editor of the NEW YORK MEDICAL JOURNAL
and PHILADELPHIA MEDICAL JOURNAL, Consolidated:

Sir: In relation to appendicitis being caused by oxyurides, I should like to report a case which occurred in my practice.

Mary S., white, aged fifteen, was admitted to the Perth Amboy City Hospital, June 19, 1903. She had all the symptoms of an acute attack of appendicitis. I operated on her on the following day, assisted by Dr. Wilson, Dr. Lund, Dr. Levy, and Dr. Ramsay. The appendix was found free from adhesions, in the usual position, slightly swollen, hard, congested, and longer than the average. Opening the appendix after the operation, I found three living oxyurides in a small quantity of mucus. The mucous membrane was indurated. The worm lived only a few minutes after the appendix was opened.

Is it not possible that these worms are a much more common cause of appendicitis than is generally supposed? Would not the worm have been destroyed and totally obliterated if the attack had gone on to a gangrenous condition, and for this reason the original cause of the attack never have been discovered?

Would it not be well to investigate for thread worms in a case of appendicitis occurring in a child in the acute stage?

FRANK C. HENRY, M. D.

Book Notices.

Surgical Diseases of the Kidney and Ureter, including Injuries, Malformations, and Misplacement. By HENRY MORRIS, M. A., M. B. Lond., F. R. C. S., Fellow and Chairman of the Court of Examiners, of the Royal College of Surgeons, etc. With Two Colored Plates and Upward of Two Hundred Engravings. In Two Volumes. Volume I, Pp. xii-682. Volume II, Pp. vii-670. Chicago: W. T. Keener & Company, 1903. (Price, \$12.)

In a modest tone, the author declares in his preface that his work is not of a cyclopædic character. The two volumes, however, are built up on the writer's less pretentious manual which appeared two decades ago. Since that day renal and ureteral surgery has undergone an evolution and a revolution to which fact this work bears ample testimony in the array of the author's own achievements, and in the words voiced from the stupendous literature that has collected about the ailments of the renal organs.

The first volume considers the embryology and anatomy of the kidney, followed by a seriatim consideration of the methods of examining the kidney, its function and secretion, and the anomalies, injuries, diseases, and growth of the kidney. This

order is continued in the first half of Vol. II, the remainder being devoted to the surgery of the ureters.

If it has been a difficult task for the author to do justice to all that has been written in the periodicals of the world, which he systematically consulted with the aid of his collaborators for upward of twenty years, the task assumes vastly larger proportions for the reviewer to pass upon this masterful work.

Returning to the literature made use of in writing this treatise, it not merely is a citation of bibliography, but it consists in quotations *in extenso*, subjected to a lucid criticism. There results from this, coupled with the prolific writings of the author, a well balanced work, strong in diagnosis, in directions for operative intervention, in the details of treatment, and in prognosis. That the instructions concerning operations are offered with great precision arises from the activity of the author in the field of anatomy. The illustrations, numbering two hundred, are for the greater part original.

It is not necessary to dwell on the writer's estimate of antiseptis and asepsis, since every turn of the page bears a tribute to the rôle played by these measures in the development of the perfected renal surgery of to-day. Ureteral catheterism comes in for valuable and lucid consideration, but the author's estimate of it must be called conservative. He is opposed to the procedure as a routine measure of diagnosis, vigorously denounces it for treating hydronephrosis and pyonephrosis, and prefers to explore the second kidney to learn of its defect, and even in the event of a lesion he removes the worse offending organ, since disease of a kidney is not necessarily coincident with diminished function. In females ureteral catheterization by Kelly's method is condemned on sentimental grounds as well as for the unreliability of the findings.

The value of the x rays in detecting the situation of renal calculus is not rated high, but it is somewhat premature to relegate it to so decidedly inferior a place as the author does. These methods from which the author dissents are, however, as yet *sub judice*, by which admission we wish to mitigate our seeming adverse criticism, and furthermore redeem ourselves by heartily endorsing a work that is bristling with the clinical precepts and methods of a widely experienced and painstaking surgeon.

The Diagnosis and Modern Treatment of Pulmonary Consumption. With Special Reference to the Early Recognition and the Permanent Arrest of the Disease. By ARTHUR LATHAM, M. A., M. D. Oxon., M. A. Cantab., Author of the Prize Essay on the Erection of His Majesty's Sanatorium. Assistant Physician and Lecturer at St. George's Hospital; Assistant Physician at the Brompton Hospital for Consumption and Diseases of the Chest, etc. New York: William Wood & Co., MDCCCIII. (Price, \$1.50.)

In this small volume the author has given us a most concise account of the subject as it is understood at the present time. The first quarter of the book is devoted to the description of the varieties of pulmonary consumption, the diagnosis of its different forms, and the avoidance of reinfection. The

remainder of the book is given up to the modern treatment of the disease.

The use of tuberculin as a diagnostic and therapeutic agent receives careful consideration. Contraindications to its use for diagnostic purposes are physical signs pointing to advanced disease or secondary infection, and certainty of the diagnosis by other means. The sources of infection are discussed under two heads, infection from human beings, and infection from animal sources, especially from cow's milk. The author comes to the conclusion that until we have further evidence to support Koch's theory of the impossibility of infection from cow's milk, it is important for us to take every precaution.

In the discussion of treatment, the author begins by recommending sanatorium treatment in all cases, unless the patient's condition contraindicates it. In this way the patient learns, as in the majority of cases he can learn in no other way, the necessary routine, and at the same time he is removed from many temptations. The principles for treatment laid down by Bremer years ago are followed and highly recommended in this volume. In most cases mountain climbing is advised as the best form of exercise. In regard to the selection of climate, the author states that most physicians agree that, as far as possible, all patients should be treated under the same climatic conditions as those which they are likely to experience in their subsequent life. Solid food is strongly recommended as the best remedy against fever. The indiscriminate use of expectorants and opiates in cases of cough is deprecated.

The book is full of valuable suggestions and points of diagnosis, and is most carefully written in excellent English. We cannot recommend the book too highly to the profession for its accuracy and completeness.

The Pathology and Differential Diagnosis of Infectious Diseases of Animals. By VERANUS ALVA MOORE, B. S., M. D., Professor of Comparative Pathology, Bacteriology, and Meat Inspection, New York State Veterinary College, Cornell University. Illustrated. Ithaca, N. Y.: Taylor & Carpenter, 1902. Pp. xiv-380.

This is a most important contribution to the study of comparative pathology, important to the veterinary student as well as to the sanitarian. Careful perusal of the work will convince the reader that Dr. Moore has produced a most complete addition to the literature of the subject. Among the various diseases described, the following may be mentioned: Those diseases caused by streptococci, swine plague, hæmorrhagic septicæmia, fowl cholera, anthrax, infectious leucæmia in fowls, swine erysipelas, glanders, tuberculosis, tetanus, actinomycosis, Texas fever, and surra. Under those diseases in which the specific cause is not yet determined, are described, among others, rinderpest, foot and mouth disease, rabies, influenza, dog distemper, and infectious cerebrospinal meningitis. The author takes up the history, geographical distribution, ætiology, symptoms, morbid anatomy, diagnosis, and prevention in each instance, and covers all the important and recognized facts. Following the discussion of each

disease are valuable references to literature. The illustrations are plentiful and for the most part satisfactory.

Dr. D. E. Salmon has written an introduction, in which the vast importance of a thorough comprehension of the infectious diseases of animals is pointed out. Not alone are millions of dollars' worth of property destroyed in one year by an animal plague, and human lives threatened as well, but the great commercial operations of nations may be seriously endangered by such an epizootic.

It is only in recent years that sufficient attention, particularly from a bacteriological standpoint, has been given to this branch of study, and the results even to-day are widespread and effectual. We congratulate Dr. Moore on the value and excellence of his book.

The Mattison Method in Morphinism. A Modern and Humane Treatment of the Morphine Disease. By J. B. MATTISON, M. D., Medical Director, Brooklyn Home for Narcotic Inebriates. New York: E. B. Treat & Company, 1902. Pp. 7 to 40. (Price, \$1.)

The Mattison Method, as described in this treatise, can be classified among the rapid methods of opiate withdrawal. Sodium bromide, in the dose of ten grains twice a day to begin with and increased up to forty grains, is the drug whose sedative action is relied upon as a substitute for that of opium. As adjuvants, hot baths and galvanism are recommended.

BOOKS, ETC., RECEIVED.

The Practical Application of the Röntgen Rays in Therapeutics and Diagnosis. By William Allen Pusey, A. M., M. D., Professor of Dermatology in the University of Illinois; and Eugene W. Caldwell, B. S., Director of the Edward N. Gibbs X ray Memorial Laboratory of the University and Bellevue Hospital Medical College, New York. Illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1903. Pp. 7-591. (Price, \$4.50.)

A Text-Book of Modern Materia Medica and Therapeutics. By A. A. Stevens, A. M., M. D., Lecturer on Physical Diagnosis in the University of Pennsylvania; Physician to the Episcopal and St. Agnes Hospitals, Philadelphia. Third edition, greatly enlarged, rewritten and reset. Philadelphia, New York, London: W. B. Saunders & Co., 1903. Pp. 9-663. (Price, \$3.50.)

Disease of the Pancreas: Its Cause and Nature. By Eugene L. Opie, M. D., Associate in Pathology in the Johns Hopkins University; Fellow of the Rockefeller Institute of Medical Research. Philadelphia and London: J. B. Lippincott Company. 1903. Pp. 5-359. (Price, \$3.00.)

Syphilis in Dentistry. By L. Blake Baldwin, M. D., Chicago, Ill., Professor of Dermatology and Venereal Diseases, Post-Graduate Medical School; Professor of Clinical Dermatology, Medical Department, University of Illinois (College of P. and S.), etc., and Ezra Read Larned, M. D., Chicago, Ill., American Association for the Advancement of Science; Chicago Academy of Science, etc. Chicago: E. H. Colegrove. 1903. Pp. 7-120. (Price, \$1.50.)

Eye Symptoms as Aids in Diagnosis. By Edward Magennis, M. D., D. P. H., Late Clinical Assistant at the Royal London Ophthalmic Hospital; Author of *The Eyesight of School Children, Hygiene in the Schoolroom, Healthy House Sites, The Irish Poor Law System*, etc. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent & Co. 1903. Pp. 3-108. (Price, 2s.)

La Défense. Intérêts Professionnels; Médecine; Stomatologie; Art Dentaire. 9e-Annee. Mai, 1903. Rédacteur. Dr. G. Roland, Bordeaux.

Miscellany.

Aphasia in the Seventeenth Century.—We have several times quoted some of the scientific curiosities to be found in the *Athenian Mercury*, the last number of which was published in June, 1697. We now add the following to the collection:

"Q. A gentleman was not long since taken with a Palsy in his Tongue: a skilful Physician being sent for to him, found he could not speak a word, or give an answer to anything that was asked him. On which, the Doctor gave him a book to read, wherein he read as well as ever in his Life; but when the book was gone again, was as mute as before; which Experiment was often repeated with the same effect. Pray what should be the reason of this?"

"A. Some Obstruction of the ordinary Passages between the Brain and Tongue, which hindered the intercourse of the Spirits, might be the cause of his Silence; whereas they might find some other way when the Species were newly taken in by the Eye; that part of the Brain, it's likely, being not in so great disorder as the other."

The Poetry of Science.—Who says that the physical side of Nature is all prose, and that for the poetry of existence we must go to "the humanities?" To say nothing of Lucretius *De Rerum Natura*, and of that grand Hebrew pæan, *Benedicite, omnia opera*, is there no poetry in the following passage from Sir William Crookes's address, delivered at the Fifth International Congress of Applied Chemistry, at Berlin, from July 2nd to 8th, on Modern Views of Matter, the Realization of a Dream? Sir William said: "This fatal quality of atomic dissociation appears to be universal and operates whenever we brush a piece of glass with silk; it works in the sunshine and raindrops, and in the lightnings and flame; it prevails in the waterfall and the stormy sea. And although the whole range of human experience is all too short to afford a parallax whereby the date of the extinction of matter can be calculated, protyle, the 'formless mist,' once again may reign supreme, and the hour-hand of Eternity will have completed one revolution."

Jacoby's Modified Instrument for Use in the Bottini Operation.—Dr. W. B. Wolf (*Maryland Medical Journal*, June) says that the following conditions must exist during the entire Bottini operation: (1) That the knife actually makes an incision at the desired place. (2) That the knife remains in the tissues in the direction prescribed, it being very important that the smallest deviation shall be indicated on the control dial. (3) The advantages of the new method do not diminish the value of the Bottini-Freudenberg incisor or in any way displace the same. (4) This method can be adopted in all cases.

In order to attain these results the area previously cystoscoped must be indicated on the incisor, so that we know the point to begin, and for this purpose an angle, called the control angle, en-

ables the hand, with the aid of the cystoscope, to find the place where the incision should be made.

The control angle is the angle of two surfaces separated in the axis of the cystoscope. One of these surfaces is vertical, and the other usually meets in the centre of the reflected area. The control angle or scale is indicated upon a dial which is horizontally connected with the cystoscope, and from this point the scale can be easily distinguished.

At the point of separation of the cystoscope lies the division of the control angle. The one side presents the vertical, and the other combines with the line of separation the direction of the instrument employed. The dial controlling the operation is 8 centimetres in circumference, having in the centre a place for the reception of the prism, which it surrounds. The scale on the dial ranges from 0 to 180. No difficulty arises in reading the figures, as the one side presents a polished and the other a dull appearance.

The control dial is attached in such a manner that the number 180 corresponds with the direction of the knife. This direction is especially indicated by a separate point which simultaneously presents the area of the control angle. The other remaining vertical area is constantly marked by an automatic indicator of the length of the dial and fastened to its centre. On the one end of this indicator is a metallic ball which performs the automatic indication, the minutest turning of the cystoscope on its axis being recorded on the indicator.

Having with mathematical exactness found the place of incision, the knife can be allowed to enter the angle and the operation can be performed with the greatest degree of safety. In the Bottini-Freudenberg incisor the dial is situated between the handle and the movable wheel, the arrow indicating on the inverted side of the dial from which it projects. The length of the incision having been previously indicated, care must be now exercised that the dial and the automatic arrow constantly correspond.

Advantages.—The utmost precision is attainable. In order to appreciate this fact one must first view the folds of the hypertrophied lobes at the greatest distance, then the place of incision in the middle of the chosen area, and afterwards place it nearer, so that the angle of incision can be quickly read. Also the new method not only facilitates the exact place at which the incision ought to be made, but controls the direction of the instrument during the entire time. Should the smallest turning of the instrument alter the direction of the incision, the deviation is always indicated on the dial. The absolute control during this phase of the operation removes the formerly existing objection when knives, having once become bent into the tissues, the remainder of the instrument could not follow their course. Furthermore, the control dial is of great value in ascertaining spaces as well as localization, and can be used in combination with the ordinary cystoscope.

The author reports three Bottini operations which he has performed with this new modification, and every little turning of the instrument which otherwise would have escaped him was promptly indicated on the control dial.

Hookworm Disease and the Panama Canal.—In view of impending events in regard to the Panama Canal, Dr. J. A. Capps (*Wisconsin Medical Journal*, May) reports a case of this disease in a man who contracted it in Panama. In view of this fact, he says, our government cannot use too great precaution in the prevention of an epidemic among the 40,000 workmen who will soon begin operations. The best means of prevention in his opinion are: (1) The examination of every laborer for the ova before he is allowed to work. (2) The detention of every infected individual until he is cured. (3) A supply of drinking water obtained at a safe distance from the canal. (4) Drainage and drying of a strip of land on both sides of the canal. (5) Proper disposal of dejecta by burning or disinfectants. (6) Enforcement of washing the hands before eating.

A Farm Worked by Lunatics.—Among the green hills of Green County, Wis., is a farm in fact, though it is known as the Green County Insane Asylum. It is in reality a home where the inmates are taken good care of and provided with regular occupation, and given a chance to get well. Here are no straight jackets and no one who needs them, for if a maniac should be brought to the asylum, he is by intelligent and gentle methods, converted into a patient and taught to bear his share of the duties of the place, thus being made a useful and responsible member of the community. This theory of usefulness is Superintendent Whitcomb's chief method of dealing with these patients, though he is no theorist but a common sense, hard worker, with a keen sympathy for suffering humanity. The work given to the patient may be nothing more than the picking up of chips, but it makes him feel that he is helping to pay expenses, and gives him a sense of self-respect. In many cases, however, they render valuable assistance, in fact they do all the farm work, as the institution is self-supporting. No restraints of any kind are used, but Mr. Whitcomb's word is law.

Superintendent Whitcomb's last report is as follows: "Transferred to other institutions, none; number escaped and not returned, none; under restraint or seclusion all of the time, none; in restraint or seclusion one month or more at a time, none; temporarily in restraint or seclusion, none; total number of days restraint, none. Out of a population of 134 patients, seven were discharged as sane; three were paroled and not returned. Thirty inmates classified as "physically disabled otherwise aside from mental disability," but the rest all work, and forty of them work like any other "hands," absolutely without watching. The rule of the place is business, and in Green County the Asylum is known as the Farm. It comprises 230 acres, 200 of which are under cultivation.

Official News.

Naval Intelligence:

Official List of Changes in the Medical Corps of the United States Navy, for the Week Ending July 4, 1903:

BERTOLETTE, D. N., Medical Inspector. Ordered to Washington, D. C., as member of the Naval Medical Examining Board.

CHAPMAN, R. B., Acting Assistant Surgeon. Detached from recruiting duty and ordered home to wait orders.

McCLANAHAN, R. K., Assistant Surgeon. Detached from the Oregon and ordered to the Villalobos.

MILLER, J. T., Acting Assistant Surgeon. Detached from recruiting duty and ordered home to wait orders.

MURPHY, J. A., Assistant Surgeon. Detached from the Monadnock and ordered to the Celtic.

Infectious Diseases in New York:

We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending July 4, 1903:

DISEASES	Week end'g June 27.		Week end'g July 4.	
	Cases.	Deaths.	Cases.	Deaths.
Measles	463	14	360	12
Diphtheria and Croup	369	49	325	47
Scarlet fever	216	16	157	14
Small-pox	0	0	0	0
Chicken-pox	54	1	55	0
Tuberculosis	253	142	247	123
Typhoid fever	56	7	45	9

Public Health and Marine-Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera and plague, have been reported to the surgeon-general, Public Health and Marine-Hospital Service, during the week ending July 3, 1903:

Smallpox—United States.			
Places.	Dates.	Cases.	Deaths.
Alabama—Mobile	June 20-27	5	
California—San Francisco	June 14-21	2	
Illinois—Belleville	June 22-29	5	
Indiana—Indianapolis	June 20-27	1	
Louisiana—New Orleans	June 20-27	4	1
Massachusetts—Fall River	June 20-27	3	
Massachusetts—Taunton	June 20-27	1	
Michigan—Detroit	June 20-27	7	
Michigan—Flint	June 20-27	1	
Michigan—Grand Rapids	June 20-27	3	
Michigan—Port Huron	June 20-27	10	
New Hampshire—Manchester	June 20-27	2	
New Jersey—Bordentown	June 6-27	24	5
New Jersey—Trenton	June 20-27	1	
Ohio—Cincinnati	June 19-26	3	2
Ohio—Cleveland	June 20-27	1	
Ohio—Toledo	June 13-20	2	
Pennsylvania—Altoona	June 20-27	1	
Pennsylvania—Johnstown	June 20-27	1	
Pennsylvania—Philadelphia	June 20-27	26	4
South Carolina—Charleston	June 20-27	2	
Wisconsin—Milwaukee	June 20-27	2	

Smallpox—Insular.			
Philippines—Manila	May 2-9	9	

Smallpox—Foreign.			
Austria-Hungary—Prague	June 6-13	4	
Belgium—Antwerp	June 6-13	4	1
Belgium—Brussels	June 6-13	8	8
Brazil—Rio de Janeiro	May 24-31	1	
China—Hongkong	May 2-10	12	1
China—Shanghai	May 9-16	2	
Colombia—Bocas del Toro	June 9-16	2	
Great Britain—Bristol	June 6-13	1	
Great Britain—Cardiff	May 2-9	28	
Great Britain—Dublin	June 6-13	15	1
Great Britain—Dundee	June 6-13	2	
Great Britain—Leeds	June 13-20	12	
Great Britain—Manchester	June 6-13	9	1
Great Britain—Newcastle-on-Tyne	June 6-13	1	
Great Britain—Sheffield	May 30-June 6	9	
Great Britain—Sunderland	June 6-13		1
India—Bombay	May 25-June 2	44	
India—Calcutta	May 23-30	1	
India—Kharai	May 23-30	3	
India—Madras	May 23-30	5	
Japan—Kobe	May 23-June 6	18	12
Mexico—City of Mexico	June 7-14	2	
Russia—Moscow	May 30-June 6	2	
Russia—St. Petersburg	May 30-June 6	41	10
Russia—Warsaw	May 16-24	2	
Switzerland—Zurich	June 6-13	1	

Yellow Fever.

Colombia—Panama	June 15-22	3	1
Costa Rica—Limon	June 11-18	2	6
Ecuador—Guayaquil	May 2-23		6
Mexico—Merida	June 1-20		5

Cholera—Insular.

Philippines—Manila	May 2-9	44	38
Philippines—Provinces	May 2-9	343	242

Cholera—Foreign.

India—Calcutta	May 23-30		52
Straits Settlements—Singapore	May 2-9		72

Plague—Insular.

Philippines—Manila	May 2-9	6	2
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Plague—Foreign.

Brazil—Rio de Janeiro	May 24-31		1
China—Amoy	May 16	Present.	
China—Canton	May 16	Present.	
China—Hongkong	May 2-16	215	184
Egypt	May 23-30	4	4
Germany—Berlin	June 5	1	1
contracted in laboratory work.			
Germany—Berlin	June 3-18	1	
India—Bombay	May 25-June 2		186
India—Calcutta	May 23-30		52
India—Karachi	May 24-31	105	100
India—Mauritius	May 21-28		1

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department of the United States Army, for the Week Ending July 4, 1903:

ARTHUR, WILLIAM M., Major and Surgeon. Left New York City on July 3, 1903, for duty as Attending Surgeon to the Soldiers' Home, Washington, D. C.

CHAMBERLAIN, WESTON P., First Lieutenant and Assistant Surgeon. Granted leave of absence for one month.

LIPPINCOTT, HENRY, Colonel and Assistant Surgeon-General. Leave of absence extended two months and fifteen days.

PURVIANCE, WILLIAM E., Captain and Assistant Surgeon. Ordered to Washington, D. C., for examination as to his fitness for promotion.

Public Health and Marine Hospital Service:

Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the Seven Days ended July 2, 1903:

BAILHACHE, PRESTON H., Surgeon. Leave of absence for seven days, from July 1, 1903, under paragraph 189 of the regulations.

FRICKS, L. D., Assistant Surgeon. To report to chairman of board of examiners, Immigration Depot, New York, N. Y., July 6, 1903, for examination to determine his fitness for promotion to the grade of passed assistant surgeon, June 30, 1903.

GASSAWAY, J. M., Surgeon. Granted leave of absence for two days, from June 26 to June 28, 1903.

McLAUGHLIN, A. J., Assistant Surgeon. Relieved from duty at New York, N. Y., and directed to proceed to Washington, D. C., for duty in the bureau, July 1, 1903.

RICHARDSON, S. W., Pharmacist. Relieved from duty at St. Louis, Mo., and directed to proceed to Portland, Me., and report to medical officer in command for duty and assignment to quarters, relieving Pharmacist M. WALERIUS, June 30, 1903.

SAWTELLE, H. W., Surgeon. Granted leave of absence for two days, from June 30 to July 2, 1903.

SIMONSON, G. T., Acting Assistant Surgeon. Granted leave of absence for one day, July 2, 1903.

STONER, G. W., Surgeon. Leave of absence for two days, from June 29, 1903, under paragraph 189 of the regulations.

TUTTLE, JAY, Acting Assistant Surgeon. Granted leave of absence for thirty days, from July 1 to July 31st, 1903.

WALERIUS, M., Pharmacist. Upon being relieved by Pharmacist S. W. RICHARDSON, to proceed to St. Louis, Mo., and report to medical officer in command for duty and assignment to quarters, June 30, 1903.

WHITE, M. J., Assistant Surgeon. To report to chairman of board of examiners, San Francisco, Cal., July 10,

1903, for examination to determine his fitness for promotion to the grade of passed assistant surgeon, June 30, 1903.

Boards Convened.

Board convened to meet at Washington, D. C., July 3, 1903, for the physical examination of an officer of the Revenue Cutter Service. Detail for the board: Assistant Surgeon-General L. L. WILLIAMS, chairman; Assistant Surgeon-General W. J. PETTUS, recorder.

Board convened to meet at the Immigration Depot, New York, N. Y., July 6, 1903, for the examination of Assistant Surgeon L. D. FRICKS to determine his fitness for promotion to the grade of passed assistant surgeon. Detail for the board: Surgeon G. W. STONER, chairman; Surgeon C. T. PECKHAM, Passed Assistant Surgeon T. CLARK, recorder.

Board convened to meet at San Francisco, Cal., July 10, 1903, for the examination of Assistant Surgeon M. J. WHITE to determine his fitness for promotion to the grade of passed assistant surgeon. Detail for the board: Passed Assistant Surgeon W. G. STIMPSON, chairman; Passed Assistant Surgeon R. BLUE, Passed Assistant Surgeon H. S. CUMMING, recorder.

Dismissal.

Assistant Surgeon F. J. THORNBURY dismissed, by direction of the President, from the Public Health and Marine Hospital Service for conduct unbecoming a gentleman and an officer, insubordination, etc., to take effect upon receipt of letter of dismissal (effective July 1, 1903), June 16, 1903.

Marriages and Deaths.*Married.*

BAKER—LEVISON.—In Brooklyn, N. Y., on Monday, June 29th, Dr. Charles S. Baker and Miss Myriam V. Levison.

BARRON—PETTIT.—In San Francisco, California, on Thursday, June 25th, Dr. Noel I. Barron, U. S. A., and Miss Laura E. Pettit.

CLARK—EVANS.—In Philadelphia, Pennsylvania, on Monday, June 29th, Dr. John Goodrich Clark and Mrs. Anna Mohr Evans.

FRANCE—TOME.—In Elkton, Maryland, on Wednesday, June 24th, Dr. Joseph Irwin France and Mrs. Evelyn S. Tome.

GWYNN—BEALE.—In Baltimore, Maryland, on Saturday, June 27th, Dr. William Clarence Gwynn and Miss Louise Harrison Beale.

HICKS—BAILEY.—In Tyndall, South Dakota, on Wednesday, June 17th, Dr. Ernest L. Hicks, of New York, and Miss Evaline C. Bailey.

MOSELEY—WILLIAMS.—In Port Chester, N. Y., on Tuesday, June 30th, Dr. Henry P. Moseley and Miss Kate Malory Williams.

PRITCHETT—FOREMAN.—In Cincinnati, Ohio, on Monday, June 29th, Dr. John M. Pritchett and Miss Bernice Foreman.

ROWAN—GILKINSON.—In Brooklyn, N. Y., on Tuesday, June 30th, Dr. John P. Rowan and Miss Maude Neva Gilkinson.

Died.

BULLARD.—In Glens Falls, N. Y., on Wednesday, July 1st, Dr. David H. Bullard, in the ninety-first year of his age.

DAVIS.—In Shepard, Ohio, on Wednesday, June 24th, Dr. Frederick A. Davis, of Newport, Kentucky.

DOUGLAS.—In Washington, D. C., on Friday, June 26th, Dr. Robert Douglas, in the fifty-eighth year of his age.

FAHNESTOCK.—In Laporte, Indiana, on Sunday, July 5th, Dr. Camillus S. Fahnestock, in the fifty-sixth year of his age.

RICHARDSON.—In Washington, D. C., on Saturday, June 27th, Dr. A. B. Richardson, in the fifty-first year of his age.

ROHMER.—In Mobile, Alabama, on Tuesday, June 30th, Dr. F. J. E. Rohmer, in the ninety-first year of his age.

New York Medical Journal AND Philadelphia Medical Journal.

CONSOLIDATED.

A Weekly Review of Medicine

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WHOLE No. 1285.

Original Communications.

ARTIFICIAL IMMUNITY IN EXPERIMENTAL TUBERCULOSIS.*

By E. L. TRUDEAU, M.D.,

SARANAC LAKE, N. Y.

Immunity against most bacterial diseases may for convenience of study be divided into natural, acquired, and artificial immunity. The great majority of mankind has in a varying degree a natural immunity against tuberculosis, for if it were not for this natural immunity the human race would probably long ago have become nearly extinct. In many individuals, however, this immunity is only relative, and is maintained only so long as the general health is kept at a high standard, or the exposure to infection is not too intense or too prolonged. An unfavorable environment, the occurrence of some other infectious disease, overwork, dissipation, or, in fact, anything that tends to depreciate the nutrition of the body, is apt to render the individual hitherto immune susceptible to the tubercle bacillus. So that it may be said that, in tuberculosis perhaps more than in any other infectious disease, environment is a prominent factor in maintaining the individual's natural immunity.

Acquired immunity against many bacterial diseases is the result of a previous attack which has been recovered from, but it must be borne in mind that this acquired immunity, like natural immunity, may vary greatly in degree and duration. At times it may be absolute and persist through a lifetime, as, with rare exceptions, is the case with variola, parotiditis, yellow fever; or it may be less constant, as in measles, scarlet fever, and typhoid fever; or so slight as to afford the individual no very appreciable protection, or only to protect for a short time following recovery, as in pneumonia, erysipelas, and influenza.

In seeking to demonstrate artificial immunity we must therefore bear in mind that the resistance

to infection which we term immunity may exist, and yet vary greatly in degree and duration.

There is little in the clinical history of tuberculosis which shows that acquired immunity occurs in this disease, for relapse is the rule and one attack does not seem to afford any protection from a subsequent and often fatal one. For this reason, the production of artificial immunity against tuberculosis in man or animals has been always looked upon as a result never likely to be achieved. A careful clinical study of many cases of tuberculosis, however, seems to indicate at least an attempt on the part of Nature at the production of acquired immunity in this disease.

We must remember that in pulmonary tuberculosis the clinical picture is obscured by the occurrence of secondary infection, which in most cases defeats the possibility of recovery, and therefore the production of any degree of acquired immunity. Even where secondary infection has taken place, however, we often note the acuteness of the process to subside without any special treatment or change of surroundings, and the disease to become arrested for a longer or shorter time, and even cured, in spite of the fact that the extensive lesions already existing and the prolonged cachexia would tend to its more rapid progress to a fatal issue were not some immunizing influence at work. In acute miliary tuberculosis in man and animals the bacilli are often exceedingly difficult to demonstrate after death, and their disappearance, Koch points out, may be due to an acquired immunity, which, however, comes too late. On the other hand, autopsies show ample evidence that pure tuberculosis heals and remains healed, though the individual must many times be exposed to reinfection from outward sources. If it is accepted that 60 per cent. of all cadavers present on autopsies healed lesions, the small proportion of these which have either relapsed or become reinfected would hint at the production of a relative degree of acquired immunity. We must discriminate, however, between arrested latent tuberculosis and healed tuberculosis.

Although tuberculosis is very evidently not a

* Read before the Association of American Physicians, at Washington, D. C., May 12, 1903.

self-limited disease in the same sense as the more acute bacterial infections like diphtheria, typhoid, variola, etc., we may, nevertheless, trace an attempt on the part of Nature at the production of a certain degree of acquired immunity in pure tuberculosis, which should encourage us in our efforts to produce artificially an increased resistance to this disease.

Artificial immunity is an attempt to imitate Nature's methods of producing acquired immunity, and it is obtained by the inoculation of a modified living virus or of toxins and dead bacteria, which produce the disease against which protection is sought.

Much light is being thrown on the mechanism of the various bacterial infections, and we have already learned to recognize two kinds of immunity, a toxine immunity and a bacteriolytic immunity, as the main factors in the production of any degree of acquired immunity. A true toxine immunity, as has been so brilliantly demonstrated for diphtheria and tetanus, is obtained by the injection of gradually increased doses of toxins produced by the germ in artificial media. Bacteriolytic immunity, the mechanism of which is much more complex and only now beginning to be understood, is usually induced by inoculations of attenuated but living germs, and seems to be the result of the victory of the tissues of the animal over the living germ.¹

The success which was met with in true toxic diseases, like diphtheria and tetanus, in bringing about protection by purely antitoxic immunity alone, has tended to direct the efforts of experimenters toward the production of that type of immunization which has proved so efficient in those diseases, and the study of bacteriolytic immunity has until recently remained in the background.

Koch's tuberculin treatment represents an attempt to heal tuberculosis by the production of a toxine immunity. We know, however, that injection of the toxins of the tubercle bacilli in gradually increased doses, while it produces in the animal experimented upon a certain degree of acquired resistance to doses which, if given at first, would have been fatal, does not protect from subsequent inoculation with living tubercle bacilli, or produce in the animal's serum an antitoxine capable of neutralizing the minimum fatal dose of tuberculin, as has been successfully accomplished in the case of the diphtheria poison. The mechanism

¹The mechanism recently advanced by Dr. Welch would explain why a living germ is necessary to the production of this type of immunity. Dr. Welch suggests that the toxins necessary to bring about the immunity in some diseases are not elaborated by the germs while growing on artificial media, but only within the living body in response to the stimulus of defensive substances secreted by the living cells, which are inimical to the bacillus.

ism of any acquired immunity in tuberculosis must therefore be different, and success could only be attained by a different method of immunization.

Antituberculous inoculation was first tried by Falk, in 1883, and all attempts in this direction have until recently resulted in an unbroken record of failures. In 1890 (1) I added my name to the list of those who found it impossible to produce immunity in animals by this method. Darenberg, in 1889 (2), Martin, Grancher, Courmont and Dor, in 1890 (3) claimed to have produced a relative degree of immunity in rabbits by previous inoculation of tubercle bacilli attenuated by time, heat, and antiseptics. Richer and Héricourt, later, claimed better results in dogs by inoculation of bird tubercle bacilli, but have not continued their experiments in this direction. Koch's tuberculin work published in 1890-91, and his later paper on T. R. tuberculin, were practically attempts at immunization.

In 1892, I succeeded in producing in rabbits an appreciable immunity by inoculations of living avian cultures, and described my results in a paper (4) read before the Association of American Physicians in 1893. The immunity in my animals was shown by the fact that inoculation of virulent human bacilli in the anterior chamber of the eye of rabbits previously immunized by subcutaneous injections of avian tubercle bacilli, aborted in most cases, while in the controls the eyes were destroyed.

In 1894, De Schweinitz (5) called attention to his success in protecting guinea pigs and a cow and calf against infection with human tubercle bacilli by means of living attenuated cultures of human origin. De Schweinitz made use of the same culture with which I was experimenting, and which he obtained from me, and, in 1897, I described, in a paper presented at the annual meeting of the British Medical Association held in Montreal (6), my results in immunizing guinea pigs by previous inoculations of this attenuated culture of human origin. In 1901-02, McFadyean (7) reported some success in immunizing cattle with living avian tubercle bacilli.

In May, 1902, Behring (8) published an exhaustive work describing his successful attempts at producing immunity in calves by previous inoculations of attenuated living cultures of human origin. This immunity seemed so strong that his animals resisted subsequent inoculations with a culture of bovine bacilli which killed the controls in less than six weeks. L. Pearson (9) and G. H. Gilliland, in November, 1902, reported their suc-

1. Anatomy of the Pancreatic Veins.—Tonkoff believes that it is a mistake to suppose that there is nothing new to be learned by research in normal anatomy, and that what the anatomist has to do now is simply to look for anomalies. The veins of the pancreas have not been studied in detail, in spite of the fact that the surgery of this organ has been advancing so much of late. The author finds that the veins of the pancreas are very numerous, and that they very frequently vary in number and arrangement, although certain rules may be established as to this. The head has many fine branches, which drain into the anastomosis between the pancreaticoduodenal veins. Of these there are as a rule three, of which the first empties into the gastrocolic, the second into the portal, and the third into the mesenteric vein. The author has not read anywhere about the existence of three pancreaticoduodenal veins. Verneuil, fifty years ago, described a right and a left pancreaticoduodenal vein, but since then no one has worked in this field. The present author cannot agree with the French investigator, whose results are quoted in the latest book on anatomy, by Poirier, as he has found three of these veins in every cadaver which he has dissected. The veins from the body of the pancreas pass into the coronary vein of the stomach, into the inferior mesenteric, and into the splenic. Most of these veins are small. The veins from the tail of the pancreas pass into the splenic vein for the most part near its exit from the spleen, and also into the left lower coronary (gastroepiploic). The large vein which passes along the body of the organ is the principal vein of the pancreas, and empties usually into the inferior mesenteric, rarely into the splenic or the superior mesenteric. All the veins of the pancreas anastomose with one another within the organ and thus form part of the portal system.

2. Rupture of Laparotomy Wounds.—V. N. Orloff reports two cases in which there were ruptures of laparotomy scars, and reviews the literature of the subject, collecting altogether 26 such cases. As regards the causes of such ruptures, the author notes that in all the cases recorded the laparotomies were performed for removing growths of the ovaries or the uterus—fibromyomata and cysts, or for Cæsarean section. The manner of closing the abdominal wounds in these cases differed widely. Some operators sewed in one tier, using exclusively silk, or two tiers, using wire for the deep sutures and silk for the superficial, etc. The method of suturing the abdominal wall cannot, therefore, have any influence upon the occurrence of rupture. Of all the varieties of material used, the least trustworthy seemed to be catgut. Owing to the difficulty of sterilizing this material, and to its liability to suppurate, catgut should not be used to sew all the layers of the abdominal wall, and other material should be used to secure the others. Silk and silkworm gut become absorbed, although slowly, as the author had occasion to note himself. In most cases reported, there was no suppuration in the wound, so this could not have been a cause of the ruptures. The immediate causes given by various authors

were cough, vomiting, exertion, traumatism, etc. To sum up, mechanical injuries, strains of the abdominal wall are the most frequent exciting causes of ruptures of laparotomy scars. The practical conclusion from this is that we must keep the wound bandaged for some time after it has healed, that we must use enemata and other means of diminishing intraabdominal pressure from gas, etc., and that we must keep the sutures in for a longer time, say, fourteen days, in cases in which rupture is threatened.

6. Normal Respiratory Rhythm.—Kostine announces that the activity of the lower portion of the medulla oblongata, the pneumogastric, and the phrenic nerve, is sufficient to secure the rhythm of normal breathing. The theory of Rosenthal regarding the automatic nature of the respiratory rhythm has been repeatedly doubted of late, but there are still some questions in this connection that have not been elucidated. The author found experimentally that when the respiratory centre was placed in the condition of an automatic centre, i.e., deprived of all reflex influences, it developed, not a rhythmic respiration, but tonic contractions of the respiratory muscles. The rhythm of normal breathing arises, therefore, from an interruption of the tetanic contraction of the muscles, taking the diaphragm as the simplest case. This interruption takes place reflexly in two ways independent of each other: (1) As the result of impulses from the cranial nerves and centres lying above the medulla oblongata. This mechanism is, in all probability, only accessory or secondary. (2) Chiefly by means of irritation of the pneumogastric nerves in the lungs. The author investigated particularly the mechanism of this irritation. The process of transforming tetanic into rhythmic impulses is somewhat as follows: The expansion of the lung stimulates the pneumogastric nerves in this organ from the very moment of inspiration, which takes place in virtue of the convulsive action of the respiratory centre on the muscles. When the force of this stimulus, which depresses the respiratory centre (it grows with the expansion of the lung), becomes equivalent to the force of the stimulus which excites the respiratory centre, the impulses which contract the diaphragm, etc., disappear, and the respiratory centre rests, only for a moment, however. Then the diaphragm becomes flaccid and the normal passive expiration takes place. The lungs collapse, and thus the stimulus to the pneumogastric, caused by their expansion, disappears, the excitors of the respiratory centre again have full sway, and so on.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

July 4, 1903.

1. Observations on the Teaching of Clinical Medicine.
Chairman's Address, 1903,
By WILLIAM SYDNEY THAYER.
2. The Boy's Venereal Peril, By FERD. C. VALENTINE.
3. Fat Necrosis of the Kidney, By JAMES R. GUTHRIE.
4. Surgical Treatment of Nephritis,
By ALEXANDER HUGH FERGUSON.
5. Evolution of the Mammalian Straight Gut, with Special Reference to Peritoneal Changes Incident to Rotation,
By W. T. ECKLEY.

6. Pityriasis Rosea. An Erythematous Eruption of Internal Organs, . . . By LUDWIG WEISS.
7. Influenza in Children, . . . By W. CARVER WILLIAMS.
8. Treatment of Scarlet Fever, Its Complications and Sequelæ, . . . By H. M. McCLANAHAN.
9. Tetanus Prophylaxis and Suspected Wounds, . . . By JOSEPH MCFARLAND.

1. The Teaching of Clinical Medicine.—Thayer deplors the inadequacy of the clinical instruction furnished in the average medical school. The chief reasons for this regrettable state of affairs are: (1) The absence of State or national laws requiring such work. (2) The multiplicity of medical schools and the existence of many such institutions unconnected with hospitals of sufficient size to furnish material for the instruction of the students. (3) A widespread prejudice existing in many hospitals against the admission of students to the wards and against the use of patients in general for purposes of instruction. Each one of these reasons is discussed by the author. In answer to the third reason he calls attention to the fact that if a certain number of patients were systematically placed in charge of senior students, under the direct supervision of the house physician, much good would result. More careful and systematic histories could be kept, the patients could be more carefully watched, and more and better clinical tests and examinations could be made. The house physician would also be relieved of much drudgery and could devote his time to more profitable matters. Such a system would be of advantage to every one concerned. Dr. Osler has put it into effect in Baltimore with most brilliant results.

3. Fat Necrosis.—Guthrie uses the term, fat necrosis, to "denote a type of necrosis to which certain tissues are liable, separate and distinct from fatty degeneration. It presupposes the fact of fatty degeneration and, subsequently, a necrosis, forming of the entire structure a fatty emulsion." At one time it was believed that this form of necrosis was always due to disease of the pancreas. This, however, is not the case. A case of fatty necrosis of the kidney, due to its dislocation, in a woman aged twenty-two, is reported by the author.

4. Surgical Treatment of Nephritis.—Ferguson puts forth a claim of priority for what has now become known as the Edebohl's operation. The method is discussed, and seventeen cases are reported. The author concludes: "I have no hesitation in affirming that decapsulation of the kidney in acute, subacute, and chronic nephritis, both interstitial and parenchymatous, is a practical and effectual surgical procedure. Its limitations are not yet determined. While it can be pointed out that regeneration of the kidney tissue is possible, it is folly to claim this procedure to be a panacea for Bright's disease."

7. Influenza in Children.—Williams's conclusions are: (1) Children of any age, even early infancy, are susceptible to influenza infection. (2) Repeated relapses and grave sequelæ are frequent where the initial seizure is mild, as well as where it is severe. Therefore, no attack should ever be

considered as "mild," or as recovered from, until a sufficient time has elapsed. (3) Clinical diagnosis should always be supported by the evidence of the microscope, whenever possible, as the practical certainty thus obtained may be of great value in explaining future developments.

9. Tetanus Prophylaxis.—McFarland holds that if tetanus once develops the probability of curing the patient is very slight. Prophylactic injections of the antitoxine have, in animals at least, produced complete immunity. He concludes, therefore, that every wound that is at all likely to be followed by tetanus demands the administration of the antitoxine as a prophylactic measure. There are, or rather were, two objections to this form of treatment: (a) The antitoxine is expensive, and, in the liquid form, spoils readily. (b) The necessity of administering the antitoxine subcutaneously tends to make the method unpopular. These two objections can probably be eliminated. The author has confirmed Calmette's observations, which showed that antitetanic serum, while not absorbed from the skin or mucous membranes, is readily absorbed by denuded surfaces, and when the dried serum is dusted on wounds it is absorbed and confers immunity on animals. The advantages of this method of treatment are many. "The dry antitetanic serum preserves its activity indefinitely. It requires no instrumental administration, but can be conveniently sprinkled, from the bottle in which it is dispensed, on the wound after the surface has been cleaned and prepared to receive it."

MEDICAL NEWS.

July 11, 1903.

1. Stomach Vertigo, . . . By CHARLES SUMNER FISCHER.
2. Notes on the Selection of a Climate for the Treatment of Tuberculosis, . . . By RUSSELL BELLAMY.
3. Hypnotism and Hysteria, . . . By W. BROADDUS PRITCHARD.
4. Dry Superheated Air in the Treatment of Septic Infection, . . . By CLARENCE EDWARD SKINNER.
5. The Sanatorium Treatment of Tuberculosis, . . . By HERBERT MAXON KING (*Concluded*).

1. Stomach Vertigo.—Fischer believes that there is too great a tendency to shift upon the stomach the responsibility for a lot of nervous phenomena which happen to appear in the course of chronic gastric disease. The special condition he studies is "gastric vertigo." Its diagnosis is at best uncertain and its relationship to gastric disease is not wholly above suspicion. If the term, *gastric vertigo*, is applied only to the type of case which has been described by Trousseau, the condition is exceedingly rare. If, however, it is used to denote all cases in which vertigo and certain pathological gastric conditions happen to be associated, the condition is exceedingly common. In order to simplify the problem, the author suggests the following classification: (1) Cases in which the vertigo is intense and is the only prominent nervous symptom. There may or may not be gastric symptoms and there may be no history of dietetic indiscretion. The attacks may occur quite suddenly, and a prominent feature which attends them is great fear and an impression of

impending evil. Some authors have doubted the existence of this type of case, which is the one originally described by Trousseau. (2) Cases which can usually be traced to some dietetic indiscretion. It seems scarcely justifiable to call these cases *gastric vertigo*, for the latter is not the principal feature of the attack, which is characterized by severe epigastric pain and pressure, followed by intense palpitation, dyspnoea, vertigo, and possibly syncope. (3) Cases in which vertigo is associated with chronic gastric disease as a momentary sensation. Such cases are numerous, but the evidence of any causative relationship between the vertigo and the gastric disease is often very obscure. The author reviews the literature on the subject of gastric vertigo and then shows, from a study of numerous personal cases, that there is no constant relationship between vertigo and abnormality of gastric secretion as determined by numerous chemical and physical examinations.

2. Selection of Climate for Tuberculosis.—

Bellamy summarizes his conclusions as follows: (1) "Consumptives with rapid breaking down of lung tissue should avoid high altitudes. So also should those of neurotic temperaments. (2) Those with markedly developed cardiac lesions, and a strong tendency to a disturbance of cardiovascular balance, should avoid high altitudes. (3) Those completing the fifth decade, where the capacity for muscular exertion is considerably limited, should avoid high altitudes, although I have heard of many cases being taken to Colorado, recovering and taking up their life there. (4) Laryngeal cases do better at low altitudes."

4. Dry Superheated Air in the Treatment of Septic Infection.—Skinner does not assert that all cases of septic infection can be cured by the use of dry superheated air. His claims for this mode of treatment are, however, very great. He reports three cases to illustrate the action of the treatment on what he considers the three chief types, clinically speaking, of septic infection. These types are represented by the following classes of cases: (1) Those in which the infection has taken place in a limb and has not yet produced glandular involvement. (2) Those in which the lymphatics of the trunk have also become involved, but where the original focus of infection has not yet become so profoundly affected as to demand removal. (3) Those in which the lymphatics of the trunk are involved and the tissues originally invaded are so hopelessly diseased as to demand immediate surgical intervention. It will be seen that the author's idea of septic infection does not correspond very closely with the one usually held. The three cases reported are not very convincing. "So far as I know, hot air has not been used in a case of septic infection in which streptococci have been found in the blood, but its physiological action indicates that it will be of great assistance in even this ordinarily hopeless condition." The paper ends with an exposition of the physiological effect of the treatment and the way cures are brought about. The technics of the method is gone into at some length.

5. The Sanatorium Treatment of Tuberculosis.—King's paper gives his experience in treating tuberculosis in the Loomis Sanatorium, of which he is physician in charge. It is not possible to abstract his paper, as too much of it is of great value. The broad principles on which the treatment is based are those now universally recognized as fundamental. One must secure for the patient under treatment: (1) An increased amount of sunlight. (2) Enforced rest in the open air day and night. (3) Increased consumption of proteids. (4) Accurately governed exercise. (5) Constant and unremitting medical supervision. While these requirements seem fairly simple yet they are more difficult to obtain than at first sight appears. Unless the physician in charge is unremitting in his care, the climatic treatment of tuberculosis, even in the most favored localities, will end in utter failure.

AMERICAN MEDICINE.

July 11, 1903.

1. One Hundred Consecutive Cases of Myoma of the Uterus, By GUY L. HUNNER.
2. Selection of the Anæsthetic: Method of Administration: Complications Encountered and How to Deal with Them, By GEORGE SPENCER.
3. Observations on the Diagnosis of Nasal Sinusitis, By WALTER J. FREEMAN.
4. A Case of Double Curvature of the Spine with An Interesting Complication, By EDWARD JUDSON WYNKOOP.
5. Two Cases of Appendicitis and Some Deductions Therefrom, By E. R. SECORD.
6. The Duties of the School Teacher in the Combat of Tuberculosis As a Disease of the Masses, By S. A. KNOPP.

1. Myoma of the Uterus.—Hunner's 100 cases occurred during a period of eighteen months in the service of Dr. Kelly, at the Johns Hopkins Hospital. The author disclaims any desire to draw conclusions from so few cases, yet his beliefs seem sufficiently clear. He emphasizes the fact that, while the cases he studies have not been selected by him, yet, since only the severer cases find their way into the Johns Hopkins Hospital, the cases must be looked upon as selected ones. The mortality was 6 per cent., or double that of the average gynaecologic case. In 7 per cent. of the cases the affection was complicated by malignant disease. He reviews the most usual symptoms and complications and calls attention to the frequent difficulty of making a correct diagnosis. That he strongly favors operative treatment will be seen by the following quotation: ". . . if in a brief series of one hundred cases we find such a record of suffering, sterility, miscarriage, extra-uterine pregnancy, hæmorrhage, anæmia, malignant growth, infection and death, I am sure you will not wonder that I announce my attitude toward myoma of the uterus as radical."

2. Anaesthesia.—Spencer gives his personal experience with chloroform and ether as anaesthetics. He has narcotized in all about two thousand cases. He considers the following subjects in detail: (1) The best anaesthetic for use on persons of different types. (2) The anaesthetic indi-

cated by the field of operation. (3) Technics of administration. (4) Treatment of complications. (5) Histories of the two cases he has lost. (1) Those patients who have a weak heart action, if it is not due to fatty change, take ether well and do not need stimulation. Young muscular men usually take any anæsthetic very badly. Yet ether is the only safe drug to give. Their struggling and deep inspirations make chloroform extraordinarily dangerous. The author never likes to follow ether with chloroform, as it is dangerous. To follow the administration of chloroform with ether is not objectionable. Patients addicted to alcohol and tobacco usually do better if they are given a stiff drink of whisky before the anæsthetic is started. (2) Spencer believes that for operations on the kidneys chloroform is to be preferred, as the patients react more quickly. In operations on the brain, as well as for laparotomies, his preference is for ether. In cases of empyema, if the dyspnoea is very great, a local anæsthetic should be used; if the dyspnoea is not too great or if it can be relieved by aspirating, chloroform and oxygen are to be preferred. (4) With regard to the treatment of shock he has never quite made up his mind. Hypodermic medication is of little value, as the injected drugs are not absorbed. Indeed, this form of treatment may do damage, if the patient recovers, by the over stimulation that will take place when the process of absorption is re-established. Probably the best results are obtained by an enema of hot coffee and whisky and intravenous injections of normal salt solution.

3. Nasal Sinusitis.—Freeman reviews the leading symptoms of disease in the different accessory cavities of the nose. He does not believe that chronic ethmoiditis is so common as some writers state. He believes that antrum, frontal, or sphenoidal disease is frequently mistaken for ethmoiditis. While acute inflammation of the ethmoid cells is common during grippe epidemics, the author has "yet to see a single exception to the rule that complete resolution takes place within a few weeks under appropriate local and constitutional treatment."

4. Double Curvature of the Spine.—Wynkoop's case was probably caused by tuberculosis. The case history is given in great detail. The complication consisted in the development of a right-sided pleurisy. There was no history of syphilis.

BOSTON MEDICAL AND SURGICAL JOURNAL.

July 9, 1903.

1. Subparietal Injuries of the Kidney,
By FRANCIS S. WATSON (*To be continued.*)
2. A Case of Acute Epididymitis In An Undescended Testicle, with Gonococci Demonstrated in the Excised Organ,
By FRED. T. MURPHY.
3. The Nernst Lamp for the Production of Ether Waves for Use in Therapeutics,
By WILLIAM ROLLINS.

2. Acute Epididymitis.—Murphy discusses the various theories of the causation of epididymitis. In the case he reports gonococci were demonstrated in the epididymis which was removed at operation. The author believes that his case adds materially

to the evidence we already have, which shows that epididymitis is due primarily to the gonococcus and not to the absorption of gonococcal toxins from the urethra or to infection by other microorganisms. He believes that all cases of epididymitis, occurring during the course of a gonorrhœal urethritis, are due to the direct action of the gonococcus, possibly rarely associated with a mixed infection.

3. The Nernst Lamp.—Rollins does not believe that the Nernst lamp will supersede the older forms of lamps. It, however, has a place of its own in light therapeutics. It has two advantages over the lamps constructed with incandescent bulbs: First, there is no loss in the short ether waves. Secondly, the consumption of current, for the same number of light waves, is less.

MEDICAL RECORD.

July 11, 1903.

1. Some Recent Methods of Intestinal Anastomosis,
By GEORGE GRAY WARD.
2. The Physician and the Ophthalmoscope,
By FRANCIS VALK.
3. The Cystoscope; Its Indications and Contraindications in Genitourinary Diseases,
By FOLLEN CABOT AND HENRY G. SPOONER.
4. A Case of Paraffin Injection Into the Nose Followed Immediately by Blindness from Embolism of the Central Artery of the Retina,
By LEE MAIDMENT HURD AND WARD A. HOLDEN.
5. Some Practical Remarks on the Management of Breech Presentations,
By JOSEPH KUCHER.

1. Intestinal Anastomosis.—Ward reviews the history of intestinal anastomosis and describes the principal methods now in use. There are three classes of operation: (1) That class in which foreign bodies are introduced into the lumen of the intestine, in order to hold the ends of the bowel together and to act as splints in maintaining accurate approximation of the cut ends. (2) That class in which sutures alone are employed. (3) That class in which mechanical devices are employed to hold the cut bowel in apposition while the sutures are applied. The most popular operations are: In the first class, anastomosis by means of the Murphy button; in the second class, anastomosis by either the Czerny-Lembert, Halstead, or Maunsell methods, in which the knots are tied outside the intestine, or anastomosis by the Connell suture, in which the knot is inside the lumen of the intestine; in the third class, anastomosis performed by the aid of either the Harrington, Laplace, or O'Hara instruments. The paper contains illustrations of most of the methods of anastomosis described by the author.

2. The Physician and the Ophthalmoscope.—Valk urges upon the general practitioner the routine use of the ophthalmoscope. He describes a simple way of using the instrument that fulfils all clinical requirements. It is not necessary for the physician to be an expert ophthalmoscopist in order to gain information that will be of the greatest value in reaching correct conclusions in many obscure conditions.

3. The Cystoscope.—Cabot and Spooner consider the following conditions necessary for a successful cystoscopic examination: (1) The urethra must be sufficiently large to admit of the easy passage of a sound of a calibre 24, French scale. (2) The bladder must be sufficiently tolerant to contain at least from 90 to 120 grammes of fluid. (3) The wall of the bladder must be transparent and remain transparent during the examination. (4) The prostate gland must not be too greatly enlarged. Cystoscopic examination is contraindicated: (1) In cases in which it is evident that operative intervention would be useless. (2) Where there are very large tumors. (3) In nearly all cases of acute cystitis. (4) In cases of tuberculosis in which the diagnosis can be made without the aid of the cystoscope.

4. A Case of Blindness Following a Paraffin Injection Into the Nose.—Hurd and Holden report one personal case, and give references to several cases in which paraffin injections in various parts of the body have been followed by distressing results. The facts in their own case were: The patient had already had two injections of paraffin about six months previously and the results had been so encouraging that he requested further treatment. At the last injection the paraffin used had a melting point of 130° F., and it was mixed with ordinary white vaseline which reduced the melting point of the mixture to 110° F. In giving the injection a vein was accidentally pierced and in this way the paraffin entered the general circulation and became an embolus. The authors describe the appearance of the eye ground after the accident and relate the treatment used in an attempt to overcome the total blindness produced. This, however, was not accomplished. How the embolus succeeded in making the round of the circulation is not at all clear. Dr. Evan Evans has suggested the possibility of the patient's having a persistent foramen ovale, which would have made it possible for the embolus to have escaped the pulmonary circulation.

MISCELLANEOUS.

Volvulus. B. G. A. Moynihan, M. S., F. R. C. S. (*Medical Chronicle*, February) writes an exhaustive article on that condition of the intestine in which an obstruction results from twisting of the gut. Volvulus is simple or compound, according to whether the gut is twisted about its own axis or its mesenteric axis, or two loops of the gut are mutually entangled. According to the author the chief predisposing congenital causes are errors in the extent of the process of "physiological fusion." As to the predisposing mechanical conditions the author agrees with Dr. Senn, who gives them as 1. Long mesentery; 2. physiological or pathological elongation of the bowel; 3. intestinal adhesions to the abdominal wall, and adds, "Violent peristalsis, caused by intestinal indigestion, some form of chronic obstruction, or some kind of violent exertion in which the abdominal muscles are especially concerned, is usually the immediate cause of the torsion." The author then enumerates the various types of volvulus and the locations affected. He

agrees with the general opinion that, so far as volvulus of the sigmoid flexure is concerned, the most common cause is chronic constipation. The changes that are apt to occur in the sigmoid mesocolon as the result of continuous overloading and infrequent emptying of the bowel are thickening, opacity, and contraction of the peritonæum. By these changes the breadth of the mesocolon is chiefly affected, so that, with the overdilated loop hanging in the pelvis, the relative proportion of the two measurements is greatly altered. The symptoms aroused by a twist of the bowel vary within the widest limits. In some cases the whole course of the disease is run within a few hours, death ensuing upon a brief but extraordinarily severe attack of obstruction and collapse. In others the obstruction may be chronic and intermittent, and the symptoms trifling. The most acute course is run in those cases where two loops of bowel are intertwined; the most chronic, in some forms of volvulus of the sigmoid.

Successful treatment, as in all other forms of acute intestinal obstruction, depends upon an early recognition of the character and severity of the disease, and upon prompt appeal to surgical measures for relief. In all cases of acute obstruction an operation should be undertaken at the earliest possible moment. Delay is deadly, and cannot be condoned. When the abdomen is opened there may be great difficulty experienced in discovering the exact cause of the obstruction, for an incision even when of large size, does not give free access to the whole abdominal cavity, and eventration should not be resorted to unless really necessary. The hand up to the wrist should be inserted in the abdominal cavity, and if a volvulus is found it should be brought out and untwisted, and, if the gut is in fair condition, it may be returned forthwith. Sometimes, however, an enormous distention of the coil may render an incision necessary to evacuate its contents and to facilitate unraveling. If in doubt as to the vitality of the loop a Paul's tube may be inserted into the gut, or the loop may be placed immediately beneath the abdominal wound and a drainage tube or ample gauze packing passed down into the gut. In one such case, the volvulus, a coil of bowel twelve inches in length, was picked out as a slough from the wound; and the fæcal fistula that resulted was closed by a later operation. If the involved loop is gangrenous; if the cause is a possible malignant mesenteric growth; if there are many adhesions, and if the bowel is lacerated in separating them; then excision of the affected gut had best be resorted to. If there is a tendency to recoil, the loop should be stitched to the anterior abdominal wall, or, in the case of the sigmoid, the ends of the loop should be sutured to the iliac fossa and the side of the pelvis. Dr. Senn has suggested the practice of shortening the mesentery for the purpose of preventing a recurrence of the twist. In all operations for volvulus it must be borne in mind that a mere reposition of the twisted loop will not suffice to remove the abnormal anatomical condition upon which the volvulus depends. After uncoiling the twist, an examination must be made, to elicit the cause of the displacement. An attempt at the removal of this determining cause is in all cases desirable.

Letters to the Editor.

MEDICOLEGAL PROCEDURES.

To the Editor of the NEW YORK MEDICAL JOURNAL
and PHILADELPHIA MEDICAL JOURNAL, Consolidated:

Sir: An editorial in the *Times* discussing my proposal for the amendment of the medicolegal procedure seems based upon an entire misconception of my meaning. I may have been obscure through over-conciseness. As the straw may be worth the rethreshing, I shall shortly restate my position.

Whenever the immediate physical cause of death is in dispute, that issue should be tried by a professional jury of physicians—that issue and that alone, to the exclusion of all others.

The prosecuting officer, for instance, charges that A. died as the result of poisoning by arsenic. Let the medical jury determine as to the truth or otherwise of this allegation. But the prosecutor goes further—he charges that B. administered the arsenic. What happens? The medical jury is now *functus officio*—and such further allegation comes within the exclusive competence of a lay jury. Another consideration—the prosecutor formulates his case as follows:

1. A. died from arsenical poisoning.
2. B. administered the poison.

Now it will be seen that it is only when charge No. 2 is reached that B. is fairly jeopardized, and just then it is that the lay jury takes charge of the fullest safeguarding of B.'s right to a trial by his peers.

The question now arises, how to provide the juries, medical and lay. In reply, let the lay jury be provided as at present. As for the medical, the Supreme Court judge and the bench should order a jury panel struck at the beginning of each judicial year of five hundred physicians—I am speaking for New York County—and from such panel when occasion arises the medical jury should be taken by ballot. The writer of an otherwise approbatory note in the *Tribune* doubts whether the public would approve of a fee of \$50 per diem to each juror. As a matter of fact the number of homicide cases in which the "immediate physical cause of death" is in dispute are few, whilst on the other hand, when it is, a jury system such as I propose, is just the piece of mechanism to save the county hundreds of thousands of dollars in protracted trials and exasperating retrial. The *Times* appears to prefer the present system of experts and suggests their selection by agreement between counsel, or their appointment by the court. There is no such thing as an expert. There is no such thing possible as a standard of expertness. Open up your grammar and compare expert, experter, experted, or expert, more expert, most expert till you penetrate the mask of impudence and fallacy which hides the face of the so-called expert. The "expert" of to-day is rapidly going the way of the "professor." As to the *Times's* suggestion that experts be selected by agreement between counsel, it is conceivable that the advocate of a multi-millionaire defendant might postpone such agreement to the Greek Kalends or the cold weather. Appointment by

the court would never do. Dr. Walter Washburn, in a later issue of the *Times*, made suggestions which in my opinion are over complicated. At all events,

... si quid novisti rectius istis

Candidus imperti, si non his utere mecum. *Hor.*

HAMILTON WILLIAMS.

Book Notices.

Atlas and Epitome of Human Histology and Microscopic Anatomy. By Dr. JOHANNES SOBOTTA, of the University of Würzburg, Bavaria. Edited, with Extensive Additions, by G. CARL HUBER, M. D., Junior Professor of Anatomy and Director of the Histological Laboratory at the University of Michigan. Authorized Translation from the German. With 171 Illustrations on 80 Lithographic Plates, and 68 Text Illustrations. Philadelphia and London: W. B. Saunders & Company, 1903. Pp. 5 to 248. (Price, \$4.50.)

The high standard of Saunder's atlases is well maintained in the volume at hand. Like its predecessors in the series, it combines a somewhat condensed text with an abundance of plates and figures. It is somewhat difficult, in these days of handsomely illustrated medical works, to make comparisons in the matter of illustrations, but we feel safe in saying that this book stands in the front rank of all similar works. And it must also be said that not only are the plates strikingly beautiful, but they are most accurate and faithful reproductions of the various tissues as we are accustomed to view them with the microscope.

We confess to a distinct sense of disappointment, however, at finding certain subjects treated at great length, while others, of more importance to the student, are somewhat curtailed in consequence. As an instance, that portion of the book devoted to the osseous system covers ten pages, while but four pages are given to the respiratory organs. The chapter on the special sense organs is excellent, and many plates of great assistance to the student will be found here. Much credit is due Dr. Huber, the editor, for many additions to the text, and also the publishers for the excellence of their work, and we congratulate the student on this important aid to his studies.

Materia Medica for Nurses. By JOHN E. GROFF, Ph. G., Professor of Materia Medica, Botany and Pharmacognosy, in the Rhode Island College of Pharmacy. Second Edition, Revised and Rewritten. Philadelphia: P. Blakiston's Son & Company, 1903. Pp. 5 to 169. (Price, \$1.25.)

This book has been thoroughly revised and rearranged, and a great deal of it has been rewritten. After two chapters devoted to weights and measures, a few chapters are given to doses and definitions, followed by the classification and description of drugs. Drugs themselves are then given in broad groups, enough being said of each drug to give a nurse a sufficiently comprehensive idea of the action, uses, and doses of its more useful prepara-

tions. A chapter has been added upon the newer remedies, also one on the sera, and other animal products. Frequent reference is made to the latest standard works on the subject.

The book is written in a clear, concise, and entertaining manner, and is at all times sufficiently complete to fulfill the requirements demanded. We take pleasure in recommending it most highly.

Le cytodagnostic. Les méthodes d'examen des sérosités pathologiques et du liquide céphalo-rachidien. Par MARCEL LABBÉ, Médecin des hôpitaux de Paris, etc. Avec 7 figures dans le texte. Paris: J. B. Baillière et fils, 1903. Pp. 5 to 95.

In this compendium the author has concisely collected the data bearing on the more precise examination of effusions in the various cavities of the body. The study of such effusions has attained very large dimensions and comprises physical, chemical, microscopical, and bacteriological research. Hand in hand with these procedures, requisite exact technical procedures have been developed to obtain the fluids *in statu nascendi*, and such methods and armamentarium as are necessary for this purpose are discussed in these pages.

From the perusal of this booklet we are enlightened in the newer methods of cryoscopy, the hæmatology, cytolytic, and agglutinative properties of the effusions. The most grateful field for the application of these methods is in the examination of the cerebrospinal fluid obtained by lumbar puncture. To the changes of this fluid incident to disease of the nerve centres, the half of this book is devoted.

Aside from the theoretical knowledge gained, this brochure will appeal to the clinician in his daily bedside routine.

International Clinics. A Quarterly of Illustrated Clinical Lectures and especially prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pædiatrics, Obstetrics, Gynæcology, Orthopædics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and Other Topics of Interest to Students and Practitioners. By Leading Members of the Medical Profession throughout the World. Edited by A. O. J. KELLY, A. M., M. D., Philadelphia, U. S. A. With the Collaboration of WILLIAM OSLER, M. D., Baltimore; JOHN H. MUSSER, M. D., Philadelphia; JAMES STEWART, M. D., Montreal; JOHN B. MURPHY, M. D., Chicago; THOMAS M. ROTCH, M. D., Boston; JOHN G. CLARK, M. D., Philadelphia; JAMES J. WALSH, M. D., New York; J. W. BALLANTYNE, M. D., Edinburgh; JOHN HAROLD, M. D., London; EDMUND LANDOLT, M. D., Paris; RICHARD KRETZ, M. D., Vienna. With Regular Correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels, and Carlsbad. Volume I. Thirteenth Series, 1903. Philadelphia. J. B. Lippincott Company. 1903. Pp. iii-306.

The volume before us bears continued evidence of the widening scope of this periodical publica-

tion. The clinical reports are gathered from the medical centres of the world, and with few exceptions are from the pens and lips of men widely known as teachers. The addition of biographical sketches enhances the value of the volumes, and the illustrations are worthy of the excellent frame work supplied by the publishers. The books reflect the increasing exactitude of medical science, and are of a distinct value to student and practitioner. Their success is undoubted.

Lectures on the Use of Massage and Early Passive Movements in Recent Fractures and other Common Surgical Injuries. By SIR WILLIAM H. BENNETT, K. C., V. O., F. R. C. S., Senior Surgeon to St. George's Hospital, etc. Second Edition. With 17 Illustrations. London, New York, and Bombay: Longmans, Green & Company, 1903. Pp. x-115.

Lectures by the author which originally appeared in the *Lancet* and published as such in the first edition, are elaborated in the present edition by a consideration of a larger number of cases, the addition of five new illustrations, and the incorporation of a lecture not heretofore published on The Rational Treatment of Stiff Joints by Forcible Manipulation, commonly called "breaking down." From quite a few words we readily gather that *brisement forcé* is a very limited procedure if the conscientious surgeon enjoins himself by the restrictions properly set forth by Bennett. He limits the procedure to traumatic, postgonorrhœal, syphilitic, rheumatic, and nondescript faulty ankylosed joints.

The essentials of the manipulations as practised by him are narcosis, and flexion with pressure limited to the line of the articulating surface. No splint is to be used at any time after the manipulations, but daily massage and active motions on the part of the patient are to be encouraged.

Bacteriological Chart, in Colors, Showing Sixty Characteristic Plates of Pathological Bacteria. New York: M. J. Breitenbach & Co., 1903.

The chart embraces sixty plates, the majority of which show the characteristic bacteria, with the distinctive stainings, magnified 1,000 diameters. It includes eight different plates of *Hæmanmæba malaræ*, showing the organism at various stages of development, and in the different forms which it assumes in the various kinds of malarial fevers. In these particular plates, as well as those showing *Amæba coli*, an even greater magnification is given.

The chart has evidently been brought down to a very recent date, as it embraces an admirable illustration of De Lisle and Jullien's bacillus of syphilis. The work is one of the most admirable pieces of lithographic production that we have ever seen emanate from an American house, and the fine gradation of color and variation in tints are so accurately reproduced as to make the chart of great value as well as one of an unusual degree of artistic merit. It is securely mounted in a form which enables the physician to suspend it for ready inspection.

Miscellany.

A Chair of Medicine in the Fifteenth Century.—Dr. T. Clifford Allbutt (*Medical Chronicle*, April, 1903) writes entertainingly of the University of Pavia, and of Giamatto Ferrari de Grado, who was therein professor of medicine from 1432 to 1472. The universities of the fifteenth century were, on the whole, very much alike, except for the fact that each university favored some one faculty in preference to another; thus, Paris and Oxford were eminent in theology, Bologna in law, Padua and Montpellier in medicine, and so on. Pavia, like Cambridge, and unlike Oxford or Paris, was little more than the town of a university. The subject of this sketch was born at Milan, at the end of the fourteenth century. His father was a physician, who desired his son also to be of that guild whose members Petrarch ironically describes as "clothed in purple, with rings on their fingers and gilded spurs." John Matthew flourished under Filippo-Maria Visconti, Francesco Sforza and Galeazo-Maria Sforza, Dukes of Milan, and, accordingly, he must have graduated at Pavia, for, under a decree of Filippo-Maria Visconti, all subjects of the Duke of Milan were compelled to take their degrees at Pavia, under a fine of 600 florins. ("Non sit . . . aliquis scholaris predictarum civitatum et ducatus volens in aliqua scientia doctrinari vel erudiri qui audeat vel presumat ire ad studium, neque filios mittere, alibi quam ad predictam civitatem Papiæ, sub poena rebellionis."—*Statute of the University of Pavia*, July 17, 1412.) John Matthew was first appointed professor of logic, and, though he was made professor of the practice of medicine eight years later (1440), he retained the chair of logic to the end of his life. In this University of Pavia, under the rule of Filippo-Maria, there were no less than 300 professors—192 in law, 72 in medicine and surgery, 50 in literature and philosophy; 24 in theology, 9 in physics and mathematics. The University of Pavia did not always sail on untroubled seas, and the rector of the jurists wrote to the duke, on the 27th of October, 1447, as follows: "Very Illustrious Prince and very dear Master:—Of late, in order to pay salaries, we have had often and importunately to address ourselves to the Jew, who has been very useful to us; but now, forsooth, the Jew will lend no more, and hence the University and its studies are in grievous straits. As this Hebrew is causing great injury to our University, we have decided to appeal to your excellency to take steps to compel the Hebrew to make us loans as before," etc.

In Ferrari's time the University of Pavia was as great a centre of education as that of Padua, and strangers flocked to both in like numbers. In Pavia the rector was a student elected by general vote, twenty-five years old, unmarried, of good life and manners, honorable birth, and not a clerk, unless no secular candidate were available. The student on his first arrival at the university on St. Luke's day, arranged his affairs according to his rank and fortune. Many took service in the house of a teacher or professor, but many were so poor that middle-age legend is full of their woes. The college of Doctors was not a part of the university. In salary the professors of the Faculty of medicine received from

five hundred to six hundred florins, besides the fees for graduation. Surgeons at this time were treated with great disdain by physicians, but more so in Paris than in Italy. In the fifteenth century there was a chair of surgery at Pavia, while at Paris and Montpellier surgeons were thrust out of the gates. The surgeon was far more closely in touch with nature than the physician. The physician at the bedside of the patient would discharge his duty by ostentatiously quoting Hippocrates and Galen in Greek and Latin, while a surgeon, who, by the practice of his art, had been brought more closely into contact with the machine he had to mend, would speak more positively and definitively about the patient's state, and this in good and intelligible vernacular. The surgeons only attempted the simple operations, leaving the perilous ones for those peripatetic specialists who had no reputations to lose. The physicians' prescriptions ran even into pages, and one wonders how any stomach could tolerate all the drugs prescribed—drugs thickening, thinning, contracting, repercussive, expressive, opilative, resolute, maturative, mondificative, regenerative, incarnative, cicatrizing, etc. Professional secrecy did not exist in those days, and the persons who were the subjects of the one hundred and eight consultations published by Ferrari are freely mentioned by name. The fifty-seventh consultation treats of King Lewis XI and his hæmorrhoids, for which Ferrari, on due request, sends elaborate prescriptions.

Ankylostomiasis in Coal Mines.—Iberer senior and Iberer junior (*Münchener medizinische Wochenschrift*, June 9), as a result of their investigations, reach the following conclusions: (1) The occurrence of ankylostoma duodenale is much more extensive than was supposed. In the Danube countries, Servia and Bulgaria, it is endemic. Not only among coal miners, but among soldiers it is of very common occurrence. (2) Those who live in the mountains may present the pale, diseased, anæmic appearance of sufferers from ankylostoma. (3) Even when many ankylostomata are present those who suffer with them may be neither pale, anæmic, nor incapable of ordinary work. (4) Mountaineers with ankylostoma may recover from the same under favorable circumstances. (5) Even those who have suffered many years from this parasite may recover completely. (6) Of the miners, 94 per cent. suffer with this parasite; 25 per cent. of them recover in spite of the severe symptoms. (7) Infection is a property of the encysted larvæ, and the means by which the disease is communicated. (8) Epidemic occurrence of the disease is conditioned upon insanitary surroundings.

The Technical Equivalent of a "Spoonful."—According to the *Dominion Medical Monthly* for June, the French *Codex* states that a spoon is full when the liquid it contains comes up to, but does not show a curve above, the upper edge or rim of the bowl. The Philadelphia College of Pharmacy has recently resolved upon promulgating this definition and has been endorsed by the American Pharmaceutical Association. The equivalents with the metric system of weights and measures are as follows: One spoonful, 5 cubic centimetres; one desertspoonful, 10 cubic centimetres; one tablespoonful, 3 teaspoonfuls, or 15 cubic centimetres.

Operation.	Adhesions.	After treatment.	Result.	Remarks.
Two months after swallowing acute pain, to the right and three inches below umbilicus, tumor formed. Cut down upon and wire removed from pus cavity.	None.		Recovery.	It is not known definitely that wire was in the stomach.
Gastrotomy done later. Incision two finger breadths below margin of ribs 3 and 5, through peritoneum. Stomach stitched to abdominal wound. Incision 2.5 cm. long. Sponge at pylorus, seized, removed with silver wire, was in lower end of œsophagus; whole was 35.5 cm. long.	None.		Death 5 days after operation	
Gastrotomy, Sep. 14. Incision 3 inches long, gastric region, external border rectus muscle. Incision around tines of fork. Fork extracted, handle in pylorus, prongs in ant. wall.	None.	Ice water diet.	Recovery 3 weeks.	Fork swallowed accidentally while patient was trying to imitate sleight of hand performance.
Stomach inflated with ether so as to be easily grasped.	None.		Recovery.	Small fistula remaining.
Gastrotomy done on the fifth day; transverse incision; brush removed. Stomach and abdominal wound sewed up.	None.		Recovery.	
Incision 2 cm. below margin of ribs. Stomach opening 3 cm. long, midway between greater and lesser curvatures. Stomach closed with 10 Lembert sutures.	None.		Recovery.	
After opening of abdomen, sword found wholly in the stomach, lying obliquely from above downward to the left, removed with little trouble.	None.		Death in 2 days, septic peritonitis.	Point of blade had punctured stomach wall, other end had lacerated œsophagus.
Laparotomy; long incision in ant. wall of stomach. Ball free in stomach. Easily removed. Stomach wound closed with 65 Madelung sutures.	None.		Recovery 3 weeks.	Both wounds healed by first intention.
Abdominal incision in the linea alba. Stomach incision transverse to avoid vessels. Wound closed with 15 sutures.	None.	Sponge missed abdomen, reopened day after operation. Sponge found.	Recovery.	
Six weeks after swallowing, abscess formed 4 cm. below margin of ribs. Opened. Foreign body in bottom of stomach, 10 cm. cut off and removed; 40 gms. of castor oil, and rest of the stick came with stool following morning.	Extensive.		In 14 days.	
Incision 10 cm. long, beginning 7 cm. below ensiform cartilage in the median line extending obliquely downward to the left; stomach drawn forward by two thread slings, teeth pushed into this portion and removed; closure with superficial stitches and several Lembert stitches. Abdominal wall sutured in 3 stages.	None.	Ligature discharged through a sinus in the 4th week.	Recovery after 5 weeks.	
Oblique incision 12 cm. long, parallel to the ribs; stomach drawn through opening, plate felt through the pylorus. Incision through stomach wall 5 cm. long, beginning 2 inches from pylorus. Stomach wound closed with 3 rows of sutures; dropped back into abdomen. Abdominal wound sutured and dressed with iodoform.	None.	Very little reaction, vomiting none.	Recovery in 21 days.	
	None.		Recovery.	
	None.		Recovery.	
	None.		Recovery.	Insane; attempted suicide.
Incision 6 inches long in left hypochondrium, 1½ inches below and parallel to the ribs, beginning at the ant. border of the rectus, extending downward and outward. Stomach raised with T forceps. Incision to admit hand and forearm. Foreign body located in the œsophagus removed with index finger and forceps. Stomach closed by two layers of sutures; mucous membrane with silk. Peritoneal with 36 Lembert. Abdomen closed with deep and superficial sutures.	None.	High temp., 101.8, cough and expectoration of pus. 3rd day, 8 oz.; 4th day, 2 oz.; liquids, ice cream to the end of 2nd week. Later solid food. Weight in 4½ mos., 165 lbs. Stitches cut on 7th day.	Recovery—went back to work in 8 days.	First case recorded in which hand and forearm were introduced into the stomach for purpose of removing foreign body.
Gastrotomy and enterotomy with removal of 4 pieces of wood; nine days after patient discharged, second enterotomy with removal of three pieces of wood.	None.		Recovery.	
Removed through mouth by sponge, passed the way of stomach.	None.		Recovery.	
	None.		Recovery.	
	Stom. to abd. wall.		Recovery.	
	None.		Recovery.	

No.	Date	Literature.	Operator.	Name, Sex, Occupation.	Foreign Body.	Time in Stomach.	Condition before Operation.
39	1889	Sklarek. Inaug. Dis- sertations, Bonn, 1890.	Trendelenburg.	M., 25, officer.	Plate with one tooth.	Several hours.	
40	1889	Lagenbeck's Archives, Hashimoto. vol. 3, p. 169.		M., 36, hairdresser.	Tooth brush 16.5 cm. long.	7 days.	Ant. wall of stomach perforated. Per- itonitis.
41	1890	Gaz. des Hôp., No. Perier. 51. Virchow's Jahrb. esbriicht, vol. ii, p. 514.		M., 32, demented.	New silver coffee spoon.	24 days.	Examination with electric sound gives positive diagnosis.
42	1890	Boston Med. & Surg. J., No. 123, p. 177.	Richardson.	F., 30.	Open safety pin.	4 days.	
43	1891	Semaine méd., 1891. Schmidt's Jahrb., vol. 23, p. 174.	Heidenreich, Nancy.	M., 29, sword swallower.	Silver spoon, 20 cm. long, wt. 27 gm.	14 days.	
44	1892	Johns Hopkins Hosp. Bull. Virchow's Jahrb. esbriicht, vol. ii, p. 447.	Finney.	M., 49.	Peach stone.	5 days.	
45	1892	Med. Fortnightly, St. Louis, Mo., U. S. A., May, 15, 1892.	Heinz Marks, St. Louis, Mo., U. S. A.	John W. K., glass and tack eater.	Pieces of glass, tacks, At odd inter- screws, nails, etc., 16, vals of 8 mos. oz. removed.		One attack of gastroenteritis 1890. Lasted one week. Second attack four days before entering hospital. Severe pains; vomited some tacks, screws and nails. Abdomen tender, but not tym- panitic. Appetite nil. Gradual decline to state of exhaustion.
46	1893	Lancet, i, p. 20, Cen- tralb. f. Chir., 93, No. 30.	Cant.	F., 68, attempted sui- cide.	Razor.	6 days.	Severe hæmorrhage. Abscess of ab- dominal wall.
47	1894	The Med. Fortnight- ly, St. Louis, Aug. 15, 1894.	Autten, St. Louis, Mo., U. S. A.	J. P. M., 52, section hand.	Double gastrolith (a) 125 cm. long, wt. 396.8 gm. (b) 69 cm. long, wt. 220.8 gm.		Nausea and vomiting at repeated inter- vals, dragging pain in region of stomach.
48	1894	Lancet, i, p. 734.	Wallace.	F., 28.	Plate with five teeth.	Several days.	Lodged in lower portions of the œs- ophagus.
49	1894	Lancet, ii, p. 432.	Gemmel.	M., 43.	192 nails, hair ball. Total wt. 1 lb., 9½ oz.		Anterior stomach wall injured, but not perforated.
50	1894	Lancet, ii, p. 1028.	Mayo Robson.	F., 10.	43 nails, 93 brass and zinc wires, 12 large nails, 3 buttons, 1 safety pin, 1 sewing needle.		
51	1894	Deutsche. Med. Woch., No. 39.	Czerny.	M., 32, laborer.	Three shut pocket knives.	48 hours.	Swallowed foreign bodies as means for a livelihood.
52	1895	Lancet, April 6, p. 904.	Sevain.	F., 20.	Hair ball, 5 lbs., 3 oz.		
53	1895	Centralb. f. Chir., 1896, No. 3.	W., of Schut- ten.	F., 30, weaver of shoe uppers of cow's hair.	Hair ball, 7.6 cm. in diam., wt., 120 gm.		
54	1895	Mündler Beiträge zur klin. Med., 1895, Bd. xiv.	Czerny.	K. B., 27. Servant.	Needle.	3 weeks.	Sharp pain in the stomach which lasted 8 days. Morphine with no effect. Pain became worse. Pain on palpation also while working and walking. Abdomen tender two finger breadths above and three below the umbilicus. Not dis- tended. Was thought needle was lodged in the ant. wall of stomach.
55	1896	J. Amer. Med. Ass., Feb. 1, 1896.	W. L. Allen, Davenport, Ia.	Maggie Heinz, F. 16.	Hair ball. Length 9½ in., circumference 8½ ins.		More or less pain after eating. Vom- iting very frequent. Emaciation; alter- nating diarrhœa and constipation.
56	1896	Annals Surgery, April, 1896, p. 415.	Morton, Bris- tol.	M., 27.	Plate with two upper incisor teeth.	1¾ years.	
57	1896	Centralb. f. Chir., No. 312, Bericht über den Congress, No. 24, 96.	Stelzner.	F., 18.	Hair ball, size goose egg. Wt., 180 gm.		
58	1896	Schreiber (mitteilun- gen) aus den Gren- zgebieten der Med. und Chir.	Eiselsberg.	Farmer's wife, 45 yrs.	Plant fibres weighing 250 gm.		Loss of appetite; palpitation of heart; pain between shoulders; beginning dia- rrhœa, no constipation; no vomiting; movable tumor in right abdominal wall three finger breadths below costal arch.

Operation.	Adhesion.	After treatment.	Result.	Remarks.
	None.		Recovery.	
After body was extracted, excision of the fistulous opening was done and wound sutured.	Extensive.		Death 3rd day.	Anterior end of brush thick as lead pencil and split.
	None.		Recovery.	
Found sticking in posterior wall of the stomach.	None.		Recovery.	Lead pencil holder discharged later per rectum.
	None.		Recovery.	
Large opening of stomach, removal of stone with sponge drawn down the œsophagus, by sword passed up through stomach.	None.		Recovery.	
Median incision, stomach raised in the wound and hard masses felt. Incision 3 inches long in the superior curvature; about 13 oz. glass, tacks and screws were removed. Stomach flushed out and apparently all foreign bodies removed. Closure with interrupted Lembert sutures. Peritoneal cavity sponged out and abdominal wound closed, sutured.	None.	Hypodermic stimulation. Heat externally.	Death few hrs. after operation.	Lavage with permanganate sol.
	None.		Death 5th day.	
Incision 6 cm. long in linea semilunaris, from top of this transversely across to the linea alba. Stomach raised into wound; incised. Larger gastrolith removed; Lembert sutures. Second incision also transversely to avoid vessels, second mass removed. Lembert sutures. Abdomen sutured.	None.	Pneumonia complications one month after operation. Con- valescing and walking around the wards, consolidation and cough persisted and T. B. C. developed. Pulmonary trouble attributed by Dr. Outten to ether.	Recovery from oper. 3 months later.	Double incision into stomach was surgical mistake, but was better than to leave needle holes at 1st suture line.
Introduction of entire hand in stomach; removal of teeth from œsophagus with fingers and forceps.	None.		Recovery.	Swallowed accidentally during sleep.
	None.		Death 4 hrs. after operation.	Piece wood and one nail found in abdomen at P. M. probably escaped when stomach was opened.
	None.		Recovery.	
	None.		Recovery.	After operation, swallowed two pocket knives which passed per rectum.
	None.		Recovery.	
	Extensive.		Recovery.	
Laparotomy was performed in the neighborhood of the pylorus. Anterior wall of stomach had infiltrated point, with pin point hemorrhage. The needle was found protruding from the stomach covered with hemorrhage exudate.	None.		Recovery.	
Incision in the median line from ensiform cartilage down below the umbilicus; stomach incision parallel to the greater curvature. Hair ball removed with difficulty. Stomach wound sutured in two layers. Mucous membrane with continuous catgut. Serous membrane with interrupted silk sutures.	None.	Codine 1/2 gr. hypoder. Milk, liquid peptonoids per rectum, peptonized milk by the mouth. Six day stitches removed; 7th day union, first intention.	Recovery. Discharged on 26th day.	Patient was in the habit of biting off ends of hair since 3 years of age. Felt tumor last 5 or 6 years, but did not increase in size.
	None.		Death 8th day.	Swallowed accidentally; death from local suppurative peritonitis.
	None.		Recovery.	Habitually bit off ends of own hair and that of other girls.
Gastrotomy.	None.		Recovery.	Diag. Degenerative floating kidney.

No.	Date	Literature.	Operator.	Name. Sex. Occupation.	Foreign Body.	Time in Stomach.	Condition before Operation.
59	1886	Deutsche. Med. Wo- chen. 1887. No. 26.	Kortmann.	55 yrs., painter.	Two shellac stones, 670 gm.	17 years.	Since 1880 great weakness; feeling of pressure in the abdomen; sometimes vomiting; movable tumor in epigastrium since 1880.
60	1897	Deutsche. Med. Woch., Jan. 21, 1897.	Fricker, Odessa.	Mrs. A., F., 32.	1 key, 2 teaspoons, 1 fork, 2 pieces of wire, 2 hair pins, 12 pieces of glass, 1 window latch, 1 steel pen, 9 sewing needles, 1 piece of graphite, 1 small shoe buttoner, 1 grape seed, 1 crochet- ing needle.	Articles swal- lowed at in- tervals 3 mos. before opera- tion.	At first slight inconvenience; loss of appetite; pain; gradual emaciation; all remedies without curative effect. Later all symptoms aggravated. Marked swelling in left side from margin of ribs to the ilium fluctuating and tender; vomiting and constipation.
61	1897	Unpublished.	Von Quast, Kansas City, Mo.	M., 36.	9 oz. of broken glass, 2 pocket knives, 1 barb wire staple, 5 knife blades, 3 screws, 1 horseshoe nail, 16 tacks of all sizes, 4 finishing nails, 5 wire nails, sizes 4, 12, 1, (12 penny nails.)	Not stated.	Emaciation; suffering from want of food and retching.
62	1897	Deutsche. Med. Woch. 1897. No. 15.	Graff.	M.	120 nails.	3 years.	Three years ago in one of his spells he swallowed 120 nails. Some nails passed per rectum, some were removed by Lübeck by gastrotomy. Patient was well up to 8 days before operation. Pain in the stomach. Retention of urine; irregular tumor right of umbilicus.
63	1897	J. Amer. Med. Ass., March, 1898, 513.	Meisenbach.	M., 22.	25 staples, 15 1½ in. screws, 6 2 in. horse- shoe nails, 30 1½ in. wire nails, 16 32 cali- bre cartridges, 3 38 calibre cartridges, 2 broken knife blades.	9 years.	Three days following the swallowing of the last object, pain in the stomach; feeling of weight; pale. Breath foul; palpation and ballottement revealed mass in the umbilical region. Tumor is about size of fist and distinct impulse is felt against the hand. Mass changes somewhat on change of position.
64	1898	Hecht. (Weiner klin. Wochen.) 1898. No. 46.	Goldt.	F., 21.	3 sewing needles.	2 days.	On second day vomiting, pain. Nourishment could not be taken.
65	1898	Lancet, 1898, March 19.	Percy Potter.	F., 30.	1 button hook, 4½ cm.		Did not complain. X ray showed button hook in epigastrium pointing upward and inward.
66	1898	Unpublished.	Finney.	F., 12.	Peach stone lodged in the œsophagus.	24 hours.	Regurgitation of food. Comfortable in the sitting posture. No cough, no hic- cough. Pain in upper part of sternum.
67	1899	Weiner klinik., Wochen.	Hacker.	F., 20.	Murphy button.		
68	1899	Beiträge zur klin. Chir., 1901, vol. 29.	Schappf.	F. 12.	Hair tumor, 160 gm.		Tumor is felt in the abdominal wall. Diag. movable spleen.
69	1899	Beiträge zur klin. Chir., 1901, vol. 29.	Schlenger.	Servant, 22.	Hair tumor weighing 2 English pounds.		Pain in the left side. Movable tumor in region of the stomach. Three attacks of strong pain and vomiting.
70	1899	Lancet, 1900. Bei- träge zur klin. Chir., 1901, vol. 29.	Halliwell.	F., 60.	Hat pin.	4 days.	Pain in left iliac fossa. Tenderness on palpation; seat of pain in the descending colon.
71	1899	Beiträge zur klin. Chir., 1901, vol. 29.	Lejars.	F., 21.	5 coins.	3 weeks.	Pain in the epigastrium. Daily vomit- ing. X ray showed agglutination of foreign bodies in lower part of œsophagus; others in centre of epigastric region.

Operation.	Adhesion.	After treatment.	Result.	Remarks.
On 10th month, 17th day, 1896. Gastrotomy. Extracted two shellac stones weighing 670 gms. Great difficulty in extracting the larger one, which was lying near the posterior wall of the stomach.	None.		Recovery.	Had drank alcoholic solution of shellac while in a porcelain factory.
Incision over the swelling. Evacuation of pus and withdrawal of crocheting needle. Other articles detected in the stomach. Abdominal incision enlarged. Stomach drawn out, and incision made not connecting with the abscess; incision, 4 cm. long near the lesser curvature. All bodies removed without difficulty except fork. Stomach sutured; two rows, mucous-serous with interrupted Lembert. Abdominal wound packed with iodoform gauze; fifth day abdominal wound closed.	Extensive.	Nourished by enema during first five days; later carefully regulated diet per os. Temperature never above normal.	Recovery in 4 weeks.	Articles swallowed during temporary attack of insanity following loss of child; view to suicide.
Incision from ensiform to umbilicus. Stomach incised so as to introduce forceps and fingers. Stomach closed by interrupted Lembert sutures.	None of stomach. Foreign bodies to the mucosa.	Strychnine hypo. or by the mouth cautiously. Rectal enema of warm water and nutrient enema after 6 hours.	Death in 48 hrs. from enteritis and exhaustion.	Patient in a wretched condition. Demanded relief. Possibly long exposure to x ray to diagnose the contents of the stomach and prevent and relieve our minds of any fakirism had something to do with the production of the enteritis and peritonitis. There had been considerable hæmatemesis and blood from bowel.
Laparotomy tumor consisted of convolution of intestine. In convolution was knitting needle 14 cm. long. Must have been swallowed with others four years before.	Extensive.		Recovery.	
One hour before operation stomach washed out with solution. Anæsthetic chloroform. Incision from xiphoid cartilage to umbilicus in the median line. Stomach was dragged down considerably. Stomach drawn out and packed off from abdominal cavity. Incision 2 in. long made midway between greater and lesser curvature. Hand introduced and articles removed. Closed with 3 rows of sutures. Abdomen with interrupted sutures.	None.	Complicated with pneumonia.	Recovery.	
Incision 12 cm. long in rectus muscle. Stomach pulled through wound and held in place with 2 stitches. Incision 4 cm. long in stomach. Extracted 2 needles 4 cm. long which were embedded in the wall of the stomach.	None.		Recovery in 10 days.	Third needle, 3.8 cm. long. passed in stool on fourth day. Another needle was found embedded in the rectum. Swallowed accidentally.
Laparotomy.	None.		Recovery.	
Gastrotomy. Incision 6 cm. long made parallel and just beneath costal margin. Stomach was brought in the wound, and after protecting abdominal cavity with gauze, stomach was opened with small incision in anterior surface. An olive tipped bougie was passed through the wound, making exit at mouth. To this end (oral) a heavy silk thread was attached. By withdrawing the bougie the œsophagus was threaded. To the stomach end of the silk a sea sponge was attached and by traction on the distal end an attempt was made to pull the sponge through the œsophagus, pushing the foreign body ahead of it. Failing in this a sea sponge was tied on the distal end of the silk. Then traction was made on the stomach end, and stone was dislodged, falling into the stomach. Removed. Stomach and abdomen closed.	None.		Recovery.	
Gastrotomy.	None.		Recovery.	Some hair 30 cm. long. A large mass of hair withdrawn from duodenum; 2 kinds of hair, red, brown and black, the latter from a bag with whom the child played.
Gastrotomy.	None.		Recovery.	
Laparotomy on 7-12-99. Incision in median line. Colon found empty. Needle found in stomach, point embedded in the posterior wall. Point of pin was pushed through wall of stomach and omentum. Needle was extracted, but broken head passed per rectum.	None.		Recovery.	Accidental; while trying to remove a piece of bread which had stuck in the throat with a hat pin.
Laparotomy. Incision in median line 10 cm. long. Stomach drawn out. Ten cm. cut parallel to long axis is made in middle anterior wall of stomach. Stomach empty; after introducing sound in cardia foreign bodies fell in stomach and removed.	None.		Recovery.	Swallowed while excited.

No.	Date.	Literature.	Operator.	Name. Sex. Occupation.	Foreign Body.	Time in Stomach.	Condition before Operation.
72	1899	N. Y. Med., 1899, Petry. xliv.		F., 38 yrs.	Safety pin.	7 days.	Pain in pharynx; right chest at height of sixth rib. They introduced bougie covered with wax. Safety pin in the upper end of the cardia.
73	1899	Johns Hopkins Bull., Halsted. vol. ix.		M., 21.	74 gm. of glass, 208 other articles.		J. H. B. Vol. ix.
74	1900	Kränzle, Beiträge zur P. Bruns. klin. Chir., vol. 29, 1901.		F., 28.	Stomach tube, 44 cm.	11 months.	Heart and lungs normal. Pain in the stomach. Vomiting 1 to 3 times weekly. Loss of appetite; greatly emaciated.
75	1900	Kränzle, Beiträge zur P. Bruns. klin. Chir., vol. 29, 1901.		F., 49.	1 teaspoon, 1 straight hair pin, 2 locked hair pins, 2 zinc comb teeth.	17 days.	Immediately after swallowing, pain at lower $\frac{1}{2}$ sternum. No dyspnoea; no difficulty in swallowing. Mouth showed 2 wounds $\frac{1}{2}$ cm. on gums. Two bloody deposits on posterior pharynx. Loss of appetite. Pain in stomach. Vomiting, weak, diarrhoea, emaciation.
76	1900	Kränzle, Beiträge zur P. Bruns. klin. Chir., vol. 29, 1901.		F., 24.	8 button hooks, 11 $\frac{1}{2}$ cm. long, 2 $\frac{1}{2}$ cm. at the handle, 12 nails, 4 to 6 $\frac{1}{4}$ cm, 4 knitting needles, 1 piece iron, 8 cm. long.	3 years.	Little pain in the first year. Intense vomiting in the second year. In the last few weeks vomited all food. Pain permanent. One needle and one nail passed per rectum on 3-13-1900. One button hook vomited one year ago. Patient's condition poor. Heart and lungs negative. Abdomen soft. Palpation insignificant; resistance in pylorus. Epigastrium sensitive. Contents of the stomach much mucus and no acid.
77	1900	Boston Med. and Surgical Jour., 1901.	Nathan Jacob- son, Syracuse.	F., 15.	Hair mass, 15 oz.		
78	1901	Unpublished.	Finney.	M. clerk.	False teeth lodged be- low cricoid.	1 day.	Suffered considerable pain, but was able to swallow small quantities of food. Breathed without difficulty.
79	1900	London Lancet, 1901.	Lieut. Col. Denny, Eger- tus Hosp., Peshawar.	M.	55 Kabuli (coins), 17 $\frac{1}{4}$ oz.	11 days.	Burning pain, aggravated by movement. Rapid pulse. Rise temp.
80	1901	London Lancet, 1902.	E. Percy Pot- ter.	F., 9.	7 $\frac{3}{4}$ oz. hair mass.	3 yrs.	No symptoms.
81	1901	J. Amer. Med. Ass., Jan. 24, 1902.	A. D. Bevan.	3.	Hat pin, 6 $\frac{1}{2}$ ins. long.		
82	1902	J. Friedenwald, Amer. Med., Aug. 2.	Finney.	M., 48.	Stomach tube.	10 days	Pain in back. Nauseated.
83	1902	J. Friedenwald, Amer. Med., Aug. 2.	Wm. E. Har- ris.	F., 20.	Stomach tube in 2 parts, 9 $\frac{3}{4}$ ins. & 6 $\frac{1}{4}$ ins.	48 days.	Patient thought she was under a spell. Consulted an herb doctor, who used a poor stomach tube; in extracting the same, it broke off.
84	1901	Deutsche. Med. Woch., Jan. 26, 1901.	Mikulicz.	W., 25.	Artificial teeth.	6 months.	X ray showed horseshoe shaped mass high up in region of ninth rib. On examination oesophagoscope ulceration junction of oesophagus and cardia. On the evidence of X ray it was believed that teeth had perforated stomach posteriorly and imbedded in perigastric tissue.
85	1902	Amer. Med., 1902, p. 603.	Inch, Kalama- zoo, Mich.	F., 30.	2 hat pins, 3 hair pins, 1 6 penny nail, 1 4 penny nail, 1 each of 6, 8 and 10 penny nails, 2 pieces of small wire, 1 button hook minus the handle, 1 screw head $\frac{1}{4}$ in. in diam., 1 brass tack.	6 days.	Pain and distress. Morphine given, also large diet of bread. July 21 passed two pieces of iron and obtained some relief. July 23, examination of abdomen sharp point beneath the skin and subcutaneous tissues could be felt.

Operation.	Adhesion.	After treatment.	Result.	Remarks.
Gastrotomy seven days later. The removal of needle was possible by introducing whole hand. Incision in stomach 9 cm. long.	None.		Recovery.	Fell asleep with safety pin in mouth.
Gastrotomy. J. H. B., Vol. ix.	None.		Recovery.	
Incision 10 cm. long. From xiphoid cartilage to umbilicus. Stomach drawn through the abdominal wound. Incision 4 cm. long made in stomach. Tube removed. Stomach wound closed with mattress suture. Abdominal wound with interrupted Lembert sutures.	None.		Recovery.	Tube was macerated and inner lining only remained.
Incision was made from xiphoid process to umbilicus. Stomach found greatly dilated. Spoon could be felt through the stomach wall. An incision made in the stomach next the pylorus. Extracting the spoon and first hairpin. Something hard was felt near the cardiac end of the stomach. First stomach incision closed; another incision near the mass felt. It was dislodged with the finger, having been imbedded in the stomach wall. Second stomach wound closed, as also was abdominal wound.	None.		Recovery.	
Gastrotomy. Reference Kranzle, Beitrage zur Klin. Chir., vol. 29, 1901.	Extensive.		Death.	
Gastrotomy.	None.		Recovery.	
Cesophagotomy with unsuccessful attempt to dislodge the plate. Gastrotomy. Incision over the inner border of left rectus muscle. Stay sutures were inserted in stomach wall. An incision was made in the stomach with a bulbous tipped cesophageal bougie, the plate could be felt. The bougie was passed upward and out through the mouth. A ligature was attached to the end and the ligature was drawn down and out through stomach. To the end in the mouth a small sea sponge was attached. This was drawn down, but failed to dislodge the plate. A second, larger, was drawn down in the same way, bringing plate down to the cardiac opening, where the plate was seized and removed. Stomach closed, as also was abdomen.	None.		Recovery.	
Gastrotomy.	None.		Recovery.	
Gastrotomy.	None.		Recovery.	
Gastrotomy.	None.		Recovery.	
Pyloroplastic operation.	None.		Recovery.	Patient had dilatation of stomach, and while washing out his stomach, tube broke off and was swallowed. Operation done under cocaine anæsthesia.
Gastrotomy.	None.		Recovery.	
Incision in the median line. Stomach drawn forward and upward and smaller omentum opened. Hand was passed along posterior surface of stomach to cardia high up and almost under the diaphragm. To left of the vertebral column immediately outside the aorta. Hard body was felt. Abdominal cavity protected with gauze pads and stomach opened. There was perforation size of Pfennig piece in posterior wall of stomach and teeth were imbedded in the perigastric tissue, part lying in the ulcer. Stomach closed with double row sutures.	Few.		Recovery.	
July 24. Operation. Incision 4 in. in length, median line, from 2 in. below xiphoid over point of protruding pin, which had perforated stomach. Stomach drawn through wound and anchor lines placed in the wall. Incision in stomach large enough to admit two fingers; along ant. wall 3 in. from pylorus. Articles removed. Stomach closed, with Lembert sutures. Intestine extended and in upper portion of ileum large number of foreign bodies. Small incision was made. 1 darning needle, 1 10 penny nail, 1 shingle nail, 1 8 penny, 1 8 penny finishing nail. Incision closed by purse string suture.	None.	Long illness.	Recovery.	Passed handle of button hook in two pieces; 2 carpet tacks, 3 pins, 1 screw, 4 nails, 1 piece of wire 2 in. in length.

No.	Date.	Literature.	Operator.	Occupation. Name. Sex.	Foreign Body.	Time in Stomach.	Condition before Operation.
86	1902	Amer. Med., 1902, p. 768.	Mynter, Buffalo, N. Y.	M., 20 yrs.	Watch.		No pain or inconvenience; had lived on diet of bread and potatoes. X ray examination showed watch in fundus of stomach.
87	1901	Canadian Lancet, Nov., 1901.	H. A. Bruce.	W., 26.	Hair tumor, wt. 1 lb., 7 oz.	Had been present for some time.	No special symptoms.
88	1902	Dublin Jour. Med. Science.	J. S. McAr- die.	W., 26.	Hair tumor.	1 year?	Morning sickness and vomiting after solid food.
89	1902	Med. Record, March 8, 1902.	J. T. Howell.	Infant, 9 mo.	Open safety pin.		Vomited some bloody mucus.
90	1903	Unpublished. Erie County Hospital.	Gaylord.	M., 24.	453 carpet tacks, 41 blades of small pen knives, 142 screws, 40 pen points, 6½ oz. of ground glass, wire chain 3 in. long. Total wt. 2 lbs., 3 oz.		

(3) Fricker. Ein seltener Fall von Fremdkörper im Magen; Gastrotomie, Heilung. *Deutsche medizinische Wochenschrift*, January 21, 1897.

(4) Meisenbach. Gastrotomy for Removal of Foreign Bodies in the Stomach. *American Medical Journal*, March 5, 1898, p. 513.

(5) Hecht. *Wiener klinische Wochenschrift*, 1898, S. 1045.

(6) Kränzle. Ueber die Entfernung von Fremdkörper aus dem Magen durch die Gastrotomie. *Beiträge zur klinische Chirurgie*, Bd. 2, 1901.

(7) Kortman. *Deutsche medicinische Wochenschrift*, 1897, No. 26.

(8) Kränzle. *Beiträge zur klinische Chirurgie*, Bd. 2, 1901.

(9) Labbe. *Schmidt's Jahrbücher*, 1876, p. 172.

(10) Fidele, Adelman. *Prager Vierteljahresschrift*, 1896. Vol. 131, p. 79.

(11) Kortman. *Deutsche medicinische Wochenschrift*, 1897, No. 26.

(12) Kränzle. *Beiträge zur klinische Chirurgie*, Bd. 2, 1901.

(13) P. Cathelin. *Bulletin de la Société anatomique de Paris*, 1902.

THE SUBCUTANEOUS USE OF PARAFFIN IN DEFORMED NOSES, WITH A SUPPLEMENTARY REPORT.*

By HAL FOSTER, A.B., M.D.,
KANSAS CITY, MO.

Since our meeting last May, in St. Joseph, many American rhinologists have reported cases of nasal deformities, successfully corrected by the subcutaneous use of paraffin.

These reports, which have been made by Dr. J. W. Murphy, of Cincinnati, Dr. B. Douglas, of New York, Dr. R. M. Parker, of Chicago, and Dr. F. Alter, of Toledo, have been carefully made, and the results are uniformly good. The judicious use of paraffin for the correction of facial deformities, is clinically confirmed by these reports. Dr. Downie Paget and Dr. Scanes Spicer, of London, England, also report cases.

Gersuny, of Vienna, was the first physician to inject paraffin for the correction of these nasal deformities. In 1899, he successfully injected it as a substitute for the testicles after castration, and to close small openings between mouth and nose after cleft palate operations. Many of his cases reported were those of ugly nasal deformities.

Several of his patients went through a long attack of typhoid fever, and the paraffin remained in perfect position, thus showing that the high temperature had no ill affect on it.

Corning, of New York, as early as 1896, injected

* Read before the Missouri State Medical Association, at Excelsior Springs, Mo., April 23, 1903.

War Upon Mosquitoes.—Professor John B. Smith, of Rutgers College, is stated to have discovered a parasite of the mosquito, *Mermis*, a round worm which inhabits the stomach. Experiments have been undertaken by Dr. Stiles, of the public health service of Washington, with a view of cultivating the parasite and inoculating the mosquito therewith.

Operation.	Adhesion.	After treatment.	Result.	Remarks.
Gastrotomy. Three inch incision in middle line portion of the stomach near pylorus pulled in the wound. Surrounded with antiseptic pads. Held with two silk sutures. One inch incision in the stomach; placenta forceps introduced and watch removed. Mucous membrane sutured with cat-gut. Rest of wound closed by interrupted silk through muscular and service coats. Abdomen closed; 3 rows sutures.	None.		Recovery.	Accidental, while joking.
Gastrotomy. Exploratory operation revealed a mass of hair twisted and woven together like that of the patient's. It was 24 in. in length, 8 3/4 in. in circum. at the largest part. A thin strand extended into the intestines for 6 in., was covered with faces.	None.		Recovery.	Single hairs, 10 to 12 in., could be unraveled.
Gastrotomy. The mass was hour-glass shape, weighed 2 lbs., 16 1/2 in. long, 10 in. in circum. Extended into duodenum and was bile stained.	None.		Recovery.	
Gastrotomy. Median incision, foreign body having been located. Portion of stomach containing the same withdrawn, and pin was extracted through small incision. Opening closed with double rows of Lembert sutures.	None.	Highest temperature 103. Six hours after operation fell to 99; within 74 hours pulse fell from 130 to 120. Rectal alimentation with peptonized milk. Fifty-four hours after operation some by mouth.	Recovery.	
Gastrotomy.	None.		Recovery.	

solidifying oils into the tissues for mechanical purposes.

My experience confirms the opinion that the commercial paraffin is the best grade of the drug to use in these facial deformities; such as the specimen which I present for your inspection. It is made sterile by boiling a few moments before using. It will boil at a temperature of from 104° to 140° F., according to the make of the paraffin used. I use a water bath, such as is used by chemists. If the syringe is kept warm all the while, there will be no danger of the substance becoming too hard before it is injected into the tissues.

As a rule, a temperature of 105° F. will suffice if the operator acts quickly after the warm syringe is charged, as it is not essential to have the paraffin in solution to obtain good results, but only in a semi-liquid state, in order that it may be readily injected before solidifying in the syringe.

Some rhinologists have mixed the white vaseline and the hard paraffin, which melts at a lower temperature and does not harden so rapidly. It is used in proportions of 1 of paraffin to 3 of white vaseline. I much prefer to use the lump paraffin, without mixing it.

A few words in regard to the syringe: A glass syringe should never be used; the substance solidifies in it because it is impossible to keep it hot enough during the operation. The ordinary antitoxine syringe is objectionable because the needle is too small and not long enough. The operator always has a great deal of trouble with it, and is obliged to use too much force to get the paraffin out

of such a syringe.

I present for your inspection an all metal paraffin syringe. You will observe that the needles are much longer and larger than those of any antitoxine syringe on the market. This all metal syringe can be kept very warm during the operation, thus assuring much better success, since the paraffin can be forced through before it can possibly solidify.

The technique of the operation.—In some cases it will be necessary to use a general anæsthetic; of course this will depend upon the patient. Fortunately, in most cases, local anæsthetics will suffice to do the work.

In cases where there is a great deal of deformity, it is well to inject Schleich's solution prior to the operation, in order to have as little pain as possible. The nose and face should be made as clean as possible, using the usual methods for sterilizing the parts to be operated on.

The operator should learn to act quickly. The paraffin should be melted and placed in the warm syringe; the latter should be kept in very hot water until the operator is ready to inject its contents into the parts to be operated on.

It will be necessary for an assistant to make pressure with his fingers on the part of the nose above the site where the injection is to be made. He should do this firmly, to prevent the paraffin going into the orbital region or neighboring tissues.

The needle is introduced below the deformity and carried under the skin to the exact point to be filled in, thus preventing the escape of paraffin from the opening made by the needle. These injections should always be made upward. When the needle

is in the proper place in the nose, the operator should give a firm rapid press on the piston, which will send the paraffin into the tissues in a semi-liquid form. The needle should now be withdrawn, and the nose pressed into shape and held until moulded rigid.

The needle wounds are sealed by collodion, which makes them air tight. Antiseptic dressings are now applied to the nose. Cold applications, in the form of ice, are very grateful to these patients, and should be applied for the first few hours. Cold, thus used, is very apt to prevent any inflammatory reaction. The patient should be kept very quiet for the next day or two.

The operation only takes a few minutes, but, in order to be successful, it requires good technique and a very careful attention to detail. Great care should be exercised not to let the injection penetrate into the tear ducts. Sometimes it will be necessary to inject several times before the deformity can be corrected.

The amount of paraffin required depends upon the deformity. As a rule, from 1 to 8 drachms will be sufficient to fill the cavity.

The cases suitable for its use are "saddle back" nose, from any cause; sunken in nose, from perichondritis; congenital or acquired luetic nasal deformities; also where the sæptum has been destroyed or crushed in, as in atrophic rhinitis.

I do not think it suitable to use on the tip of the nose, on account of the elastic condition of the tissues there. In the large number of cases now being reported, I have failed to find any case where the drug was absorbed, or has had any other bad results. In several cases there was some local inflammation, which, however, soon disappeared under cold applications.

Meyer and Sterns, of Berlin, have used the injection a number of times on animals, causing no oil embolism, thus showing that the drug, when carefully injected, will be of a great assistance in the field of nasal deformities, correcting these ugly deformed noses, which, while not dangerous to life, are a constant source of annoyance to the patients and their friends.

After a personal use of it in three cases, I am sure that it will find a permanent place in correcting nasal deformities, which all other measures heretofore have failed in meeting successfully, and I cheerfully recommend its use in all such cases.

Dr. Nagle Goes Abroad.—Dr. John T. Nagle, chief of the department of municipal statistics, has sailed for Europe to observe the sanitary conditions in England, Germany, Switzerland, Italy, Spain, and Russia.

A NEW OBTURATOR FOR THE URETHROSCOPE.*

By I. H. JACOB, M.D.,
NEW YORK.

Before demonstrating to you my obturator for facilitating the urethroscopy of the posterior urethra, I beg you to accord to me the privilege of offering a few general remarks about this method of investigation. The posterior urethra is a fixed tube running in a curved direction and capable of undergoing a good deal of stretching. Both its ends are closed by two muscles, the external and internal sphincters. All metallic instruments which are introduced into this part of the urethra are adapted to the curvature of the canal, an exception being formed by the straight obturator that is generally used in urethroscopy. This is an obvious defect, as the urethra is simultaneously opened and stretched with some degree of violence through the point of the obturator. The result is shown in pain, lesions, and hæmorrhages from the sensitive posterior urethra. Oberländer has attempted to remedy this defect by his jointed obturator, which is introduced in a curved position, to be subsequently straightened and removed. It is rather strange that he has been unable to popularize this instrument, owing, perhaps, to its somewhat complicated character. In addition to that, we find another drawback connected with posterior urethroscopic technique, that is not obviated by Oberländer's instrument; for, in introducing the tube, we are never accurately informed of its position, and unless we introduce the tube closely up to the sphincter internus we shall fail to observe the most important part of the posterior urethra, namely, the region of the colliculus seminalis. On the other hand, if we introduce the tube beyond the sphincter into the bladder we shall find that, in removing the obturator, the tube will be inundated by urine, rendering the examination either impossible, or at least exceedingly difficult. All these difficulties can be overcome, I believe, by this simple and cheap obturator which I have the honor of demonstrating to you.

The obturator, which we might call the "catheter obturator," consists of a catheter with a cen-



Fig. I.—Dr. Jacob's Obturator for the Urethroscope.

tral eye and a mandrin, upon which a small hollow cylinder slides. The purpose of the latter will be shown to you later on. To render the instrument

* Read before the German Medical Society of New York.

ready for use, we introduce the mandrin as far as possible into the catheter and then the whole obturator into the tube. When closed, the catheter should project over the tube by about one centimetre, while the mandrin will overlap the tube by about four millimetres. The closure of the tube through the catheter is more perfect than can be obtained by the metallic obturator, without ren-

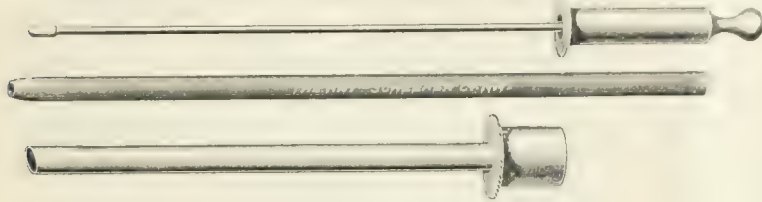


Fig. II.—Dr. Jacob's Obturator with the Parts Separated.

dering the edges of the tube too pointed. Now, the instrument is introduced and the external sphincter is opened by the soft end of the obturator with as much ease and as little pain to the patient as is caused by the introduction of a catheter. In going further, the end of the catheter assumes the curvature of the urethra, so as to render the instrument practically a curved one. This part of the obturator being now adapted to the shape of the urethra effects the opening of the urethra before it is straightened, rendering the stretching less violent. The straightening process itself is effected by the end of the mandrin, which is covered by the catheter. In this manner the mucous membrane is protected from lesions and tears. Now we introduce the instrument into the bladder, partially remove the mandrin and then pull out the catheter far enough, so that its end may overlap the tube but slightly. Through the agency of the above mentioned small hollow cylinder, which is movable over the mandrin, we are able to determine positively when this has taken place. After this, the mandrin is removed, and when the urine commences to flow from the catheter we move the whole instrument outward until the urinary flow ceases. Then we are certain that the end of the tube is placed in the desired position, namely, closely in front of the internal sphincter. After the removal of the catheter we are sure that the whole posterior urethra will be accessible to our view.

I desire now to call the attention to the following details: The introduction of the obturator into the tube takes place without any difficulty, even with an old catheter, by simply avoiding rotatory motions and pushing the obturator forward in a straight direction. The examination should always be instituted in a partly filled bladder, to enable us to determine the position of the tube. A deficiency in the quantity of urine could

be remedied after the introduction of the instrument by the injection of a boric acid solution through the catheter. In removing the catheter from the tube its opening must be compressed, so as to avoid an overflow of the urine into the tube.

For some time past I have made use of this instrument in the Mount Sinai Hospital Dispensary, in the Jewish Hospital Dispensary of Brooklyn, as well as in my private practice, and the results justify me in the belief that I may conscientiously recommend the same to you for investigating its claims and for use in your own practice. I should feel gratified if the demonstration of this obturator should result in a

more frequent application of posterior urethroscopy than has been the case hitherto. It is my firm conviction that a great number of patients whose complaints are caused by pathological processes in the posterior urethra are placed in the category of sexual neurasthenics. The therapeutic results in these cases would show a great improvement by a correct diagnosis and an appropriate local treatment.

1228 MADISON AVENUE.

SUBCONJUNCTIVAL MEDICATION, WITH SPECIAL REFERENCE TO THE USE OF SALT-SUGAR SOLUTION IN ACUTE AFFECTIONS OF THE ANTERIOR PORTION OF THE EYE.

By HOWARD McI. MORTON, M.S., M.D.,

MINNEAPOLIS, MINN.

The writer's experience with subconjunctival injections leads him to think that any favorable results following their use are due rather to the quantity of the fluid used than to direct action of the drug conveyed by the injected media.

Since arriving at this conclusion—reached by clinical evidence alone—he finds that Vogel, in a communication appearing in the *Archiv. für Ophthalmologie*, has also dealt with this question and arrives at the conclusion—through experimental evidence—that little or no value is to be attributed to the chemical properties of the fluid used. He found that the percentage of mercury in the aqueous, after the use of a 1 per cent. solution of the mercury salts, represented a solution value of but 1 to 100,000. It is difficult to believe that any substantially good effects could follow the use of such a solution if no active agent other than the chemical was present.

In very acute morbid processes of the anterior ocular segment the writer has used for a number

of years the several mercury salts, and more recently the much discussed cinnamic acid (or its sodium salt, hetol).

While it is true that in some cases pain does not follow the introduction of a chemical agent subconjunctivally, it is usually a painful, and in some cases an exceedingly painful, procedure. I have for several years, in binocular acute inflammation, repeatedly satisfied myself that an injection of a large amount—two to six grammes—of sterile water alone, produced in the one eye a more rapid resolution of the inflammation than the chemical agent, carried in a smaller amount of fluid, brought about in the other; and furthermore that the administration of the sterile water subconjunctivally caused less pain than the chemical agent (usually the mercury bichloride or cyanide).

This observation seemed to indicate that the administration of large amounts of a readily diffusible and sterile solution was to be preferred to either the chemical solution or the simple sterile solution.

The use of a 3 per cent. solution of sugar combined with a physiological salt solution was tried in a severe case of pneumonococcus ulceration involving both corneæ. The injections were preceded by the instillation of a 4 per cent. solution of cocaine into the cul de sac. Little or no pain followed the immediate introduction of the solution beneath the conjunctival membrane, and the injections were repeated every third day, and sometimes every second day, providing no swelling about the limbus remained to indicate that all the solution was not completely diffused.

This physiological salt with 3 per cent. sugar solution has been used quite constantly for the past three years in such cases as the injections of mercury, or later hetol, would seem to have been indicated. In severe uveitis attendant upon articular rheumatism, from 2 to 4 grammes of this solution results in greater comfort and, I think, assists in recovery. In simple iritis—if simple iritis exists—the pupil responds more quickly to the mydriatic after the use of the salt-sugar solution as described. It is my belief that the beneficial results follow on account of a rapid augmentation of the lymphatic and blood channels by direct diffusion into such channels, and to the dilution of the toxic products about the focus of inflammation.

The use of this solution has been confined to cases of pneumococcus ulceration of the corneæ, to forms of plastic iritis associated with rheumatic disease—especially where entire involvement of the anterior portion of the uvea exists, and to traumatic infected ulcer of the corneæ, as well as in dendritic ulceration.

In all these inflammatory processes it has become

the regular practice of the writer to use injections of from 2 to 4 grammes—or even to 6 grammes—of the solution of salt-sugar. The fluid is introduced by an ordinary hypodermic syringe, the capacity of which is just 1 c.c., and is injected so that it fills the subconjunctival space about the corneal margin entirely. This necessitates the introduction of the syringe at several points just anterior to the insertion of the recti. In sthenic individuals where one eye alone is involved, the introduction of a large amount of fluid subconjunctivally is very properly an office procedure, but to be followed by slight pressure from Liebricht's pad, and the patient directed to use hot fomentations for periods of five minutes, with half hour intervals.

I have never had an eye suffer any dangerous symptoms from the use of the salt-sugar injection.

In regard to the propriety of the frequent and routine use of any form of subconjunctival injection, I believe their field is one limited to the more severe and intractable cases. The usual office procedures are first used and are usually sufficient for all ordinary forms of disease involving the anterior ocular segment. That subconjunctival methods of medication do assist in promoting resolution more rapidly in certain intractable cases than do the usual local measures used, I have satisfied myself by clinical evidence, where, both eyes being involved, the two methods, the subconjunctival introduction of salt-sugar solution in one eye and the usual treatment in the other, showed greater comfort to the patient and more rapid recovery following the salt-sugar injection.

A CASE OF BLACK, HAIRY TONGUE.

By R. H. JOHNSTON, M.D.,

BALTIMORE.

ASSISTANT SURGEON AND PATHOLOGIST TO THE PRESBYTERIAN
EYE, EAR AND THROAT CHARITY HOSPITAL; DEMONSTRATOR
OF LARYNGOLOGY IN THE UNIVERSITY OF MARY-
LAND MEDICAL SCHOOL.

The first case of this disease reported in medical literature has been ascribed to Rayer (1850). It is probable, however, that, in 1831, a case was recorded in the *Boston Medical and Surgical Journal*. A friend, writing to the editor of the *Journal*, described a peculiar blackness of his own tongue which answered in every particular to nigrities linguæ. The disease is rare, and up to date some thirty-five (35) cases have been reported. All of these did not answer to the typically hairy tongue, but possessed the peculiar discoloration, varying in shade from a yellow or brown to black, or even green in one case. The case observed by the writer was very interesting because the tongue showed a marked growth of black hairs, which could be pulled out with forceps. The case in detail is as follows:

In November, 1901, E. C., aged fifty-six years, in good health, appeared in the throat department of the Presbyterian Hospital. He stated that he had always enjoyed good health and that he had not come to the clinic on account of illness, but because of a peculiar sticking sensation in the mouth and of a blackness of the tongue. The duration of his trouble was two months. The examination of the nose showed only a slight catarrhal condition. Protrusion of the tongue showed a black discoloration almost round, measuring about 10 mm. in both diameters. The patch was situated in front of the circumvallate papillæ in the centre of the tongue. After careful drying with cotton a more satisfactory view was obtained. The black area was seen to be covered with hairs about half an inch long. Some were removed with forceps and examined microscopically. They were found to consist of hornified epithelium, one cell upon the other. There was no swelling of the filiform papillæ, such as has been noticed in some cases. The mass of hair could be moved about with the probe. The patient was given a placebo and was requested to return in two days. Unfortunately, he did not do so and the further course of the disease is not known.

The ætiology of this strange condition has been much discussed. Most authorities concur in the opinion that the hairy formation is due to the prolongation and thickening of the epithelium of the filiform papillæ. Brosin believes that the coloring matter is produced by a yeast-like organism. In 1893, Ciaglinski and Hewelke, and a little later Sendziak, succeeded in cultivating a fungus, which, they asserted, caused the color. Their results have not been confirmed by other investigators. Mourek found on the prolongations of horny epithelium which lengthen the filiform papillæ a peculiar coloration due to their horny nature. He could not find fungi. In 1557, according to Virchow's Archives, Amatus Lusitanus found hairs upon the tongue of a man which, when pulled out, grew again. The most extensive case of black tongue has been reported by Eulenberg. The organ was black from base to apex and the papillæ were greatly hypertrophied. Scrapings showed numerous thickened, brown-colored, epithelial cells, on the borders of which were pigment granules. Most of the cases have been observed in old people or those enfeebled by illness. Thus, of St. Germain's four cases, two occurred in girls, one of whom had increasing emaciation and paraplegia, while the other was recovering from enteric fever. The other two cases were in old people. In a few patients there has seemed to be some connection between disorders of the stomach and black tongue. In Hofheimer's case the patient, aged thirty-one years, had a disordered stomach, which responded to treatment. Shortly afterward her tongue became black. Usually the symptoms are not at all serious. Read, however, has reported a case of a young man, twenty-four

years of age, who had had attacks of black tongue since his fifth year. The first attack lasted three months and was accompanied by serious symptoms, such as high fever, prostration, delirium, etc. In America cases have been reported by Montgomery, Ramsey, Read, Cohen (2), Hofheimer and Levi-seur. In English records the writer has found only two—those of Rumsey and Stokes. The remaining cases were observed on the continent of Europe. The case described above is the eighth recorded in this country. The course of the disease is uncertain, its duration varying from a few days to several months. Often no treatment for the local condition is necessary. The best results are obtained from scraping the mucous membrane and applying strong antiseptics. The general health should receive careful attention, as in most cases the local trouble seems to depend upon the lowered vitality.

212 WEST MADISON STREET.

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THE TEMPERATURE IN "SUMMER COMPLAINT."

By WILLIAM F. WAUGH, M.D.,

ATLANTIC CITY, N. J.

The study of the temperatures found in the so-called "summer complaint" of infants shows the presence of two widely divergent types. In one there is a subnormal temperature in the axilla, possibly a little elevation in the rectum, but the whole aspect of the child indicates profound depression and relaxation. The skin is pallid and moist, the eyes sunken, the abdomen depressed; the child lies

relaxed and nerveless, its eyes half closed, the whites rolled up. There may be some heat over the epigastrium, but there is scarcely ever any in the forehead.

In this condition the benefits of atropine are immediate and marked. Give enough to produce any manifest effect, dryness of the mouth, reddening of the face, or dilatation of the pupils, and the whole aspect of the case is strongly altered for the better. Then follow with brucine, cautiously repeated in very small doses until the tonic of the pulse has been reestablished, and the intestinal musculature and mucosa restored to resistant vitality. This, with suitable diet and proper attention to the toilet of the gastrointestinal tube, gives results far in advance of the old, senseless, awkward methods.

But in the other group of cases we have a totally different condition with which to cope. The epigastrium and forehead present, to the hand, a pungent heat, the pupils are contracted even without the aid of opiates, but more decidedly if these have been unfortunately given. The temperature in the rectum betokens hyperpyrexia. The child is restless, tossing, or jerking, and convulsions may occur. In fact, in some instances it may be a question whether the case is not one of sunstroke. But this is negated by the rapidity with which the symptoms subside under proper treatment. Give calomel, grain $\frac{1}{20}$, every quarter of an hour for five doses, wash out the stomach and bowels with safe antiseptic solutions, control the pulse and temperature with minute doses of aconitine, or of veratrine if the renal excretion is markedly diminished, and push zinc sulphocarbolate to full effect—that is, give from $\frac{1}{6}$ of a grain to one grain, with a grain of bismuth subnitrate and one of saccharated pepsin or other digestive ferment, every quarter hour until the danger is past. The child should go into a warm bath, which should be gradually cooled down by pouring in cold water, and iced cloths should be applied to the child's head. Give no food. Atropine is contraindicated by the fever, but rubefacients over the right pneumogastric in the neck are very useful.

The use of veratrine lies in the very small dose. To a child in the second summer give grain $\frac{1}{134}$ —half a milligramme—dissolved in one ounce and a half of water, a teaspoonful every quarter to one hour. Large doses are inadmissible; the small ones often work magic. Depression does not occur requiring food, but cool water should be freely given, and warm colon enemata of normal salt solution may replace any great loss of fluid. A teaspoonful of unsweetened coffee is the best stimulant. In convalescence the denudation of the gastrointesinal mucosa is a most important element.

Therapeutical Notes.

Skincolored Ointments and Varnishes in Dermatotherapy.—Rausch (*Bulletin de thérapeutique*) gives the following formulæ:

R Red clay.....3 centigrammes ($\frac{1}{2}$ grain);
Glycerin6 drops;
Zinc ointment.....10 grammes (150 grains).
M. For external use.

R Red clay.....24 centigrammes (4 grains);
Glycerin20 drops;
Red rosin solution, 2 to 1,000.....8 drops;
Zinc ointment.....40 grammes (10 drachms).
M. For external use.

R Red clay.....3 centigrammes ($\frac{1}{2}$ grain);
Red eosin solution, 2 to 1,000,
3 grammes (45 minims);
Distilled water.....50 grammes (12 $\frac{1}{2}$ drachms);
Gelatin12 grammes (3 drachms);
Glycerin10 grammes (2 $\frac{1}{2}$ drachms);
Zinc oxide.....20 grammes (5 drachms).
M. For external use.

With the foregoing formula, the consistency of the varnish may be varied by increasing or diminishing the quantities of gelatin and zinc oxide or glycerin and water.

R Red clay.....2 centigrammes ($\frac{1}{10}$ grain);
Red eosin solution, 2 to 1,000.....2 drops;
Zinc oxide.....40 centigrammes (6 grains);
Glycerin3 grammes (45 grains);
Gelatin20 grammes (5 drachms).
M. For external use.

The last formula has given Rausch great satisfaction in the treatment of dry, facial seborrhœa.

Modes of Prescribing Terpene Hydrate.—*Revue française de médecine et de chirurgie* gives the following formulæ, useful in bronchitis or in disorders of the urinary tract:

R Terpene hydrate.....5 centigrammes ($\frac{3}{4}$ grain);
Venice turpentine.....q. s.
M. 2 to 6 pills daily.

R Terpene hydrate } of each.....5 centigrammes
Sodium benzoate } ($\frac{3}{4}$ grain);
Extract of aconite.....1 milligramme ($\frac{1}{100}$ grain).
M. 4 to 6 pills daily.

R Terpene hydrate.....2 grammes (30 grains);
Alcohol80 grammes (2 $\frac{1}{2}$ ounces);
Distilled cherry laurel water,
5 grammes (75 minims);
Garus's elixir.....20 grammes (5 drachms);
Syrup of tolu } of each.....100 grammes
Syrup of diacodion } (3 ounces);
Distilled water, q. s. to make 330 grammes
(10 $\frac{1}{4}$ ounces).
M. Tablespoonful, twice to four times daily.

The third formula is the elixir of terpene hydrate; each tablespoonful contains one and one-half grains of the drug.

Treatment of Bronchopneumonia.—Besides helping the heart with quinine or kola, H. Gillet (*Gazette des maladies infantiles*) gives Senestre's mixture:

R Caffeine.....1 of each 1.60 gramme (24 grains);
Sodium benzoate }
Vanillin5 centigrammes ($\frac{3}{4}$ grain);
Syrup of tolu.....50 grammes (1 $\frac{1}{2}$ ounces);
Rum10 grammes (2 $\frac{1}{2}$ drachms);
Distilled water.....60 grammes (2 ounces).
M. Tablespoonful twice daily.

Theobromine, in doses of one to three grains, is advised as a diuretic. The nervous system is to be kept up by the diffusible stimulants, ammonium carbonate or acetate, or camphor, valuable in hyperæmia.

When bronchial symptoms predominate, give:

R Tincture of eucalyptus....2 grammes ($\frac{1}{2}$ drachm);
Syrup of althæa.....20 grammes (5 drachms);
Syrup of mint.....30 grammes (1 ounce);
Water50 grammes (1 $\frac{1}{2}$ ounces).

M. Tablespoonful every two hours.

In grave cases, injections may be made of ether, camphorated oil (ten per cent.) or artificial serum.

Massage of the Prostate and Albuminuria.—According to C. Krüger (*Münchener medizinische Wochenschrift*, June 9) the common occurrence of prostatitis in connection with gonorrhœa has brought the operation of massage of this organ into very common use. Its value in chronic prostatitis is very great, but it must be employed with caution and not at all in the suppurating form. If used injudiciously, it may cause hypertrophy of the prostate; it may also be a means by which infection from the diseased organ is conveyed into the circulation. In two cases in which chronic prostatitis followed gonorrhœa, albuminuria followed massage of the prostate. The massage is done with the finger, which alone can detect every portion of the organ and differentiate sound from diseased tissue. The patient is placed in the knee-elbow position, and the massage is performed daily for four minutes. In the two cases in question the albumin was from the kidneys, not being due to leucocytes, semen, or other possible source aside from the renal secretion. Both the patients were very nervous, and, apart from the chronic prostatitis and the anterior and posterior urethritis, had no organic disease. There were no gonococci in the urine. The first patient had albumin in his urine after any considerable exertion, dancing for example. Since albumin followed the massage treatment, the question is raised whether it may not be possible to cause nephritis by such means.

The Treatment of Obesity.—Robin and Huchard (*Journal des praticiens*) besides insisting on rigorous dieting, prescribe the following:

R Extract of Fucus vesiculosus.....6 centigrammes
($\frac{9}{10}$ grain);
Potassium iodide.....4 centigrammes ($\frac{3}{4}$ grain);
Thyroidine.....1 centigramme ($\frac{3}{20}$ grain);
Pulverized aloes.....2 centigrammes ($\frac{3}{10}$ grain).
M. One such pill before breakfast and dinner.

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FRANK P. FOSTER, M.D., KENNETH W. MILLICAN, M.R.C.S.
Editor. Associate Editor.

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NOTICE TO SUBSCRIBERS.

Every person who, at the date of the consolidation of the New York Medical Journal and the Philadelphia Medical Journal, was a subscriber to either of those journals, will receive the New York Medical Journal and Philadelphia Medical Journal, Consolidated, up to the period at which his subscription to either journal expires. Every person who, at the date of the consolidation, was a subscriber to BOTH the New York Medical Journal and the Philadelphia Medical Journal, will receive the consolidated journal to the date of expiration of his subscription for the New York Medical Journal; after which period his subscription to the consolidated journal will be extended without further charge for a period equivalent to the unexpired portion of his subscription to the Philadelphia Medical Journal.

THE HYGIENIC LABORATORY OF THE PUBLIC HEALTH AND MARINE HOSPITAL SERVICE.

If anything were still needed to attest the devotion with which the Public Health and Marine Hospital Service was pursuing investigations of the greatest importance to the maintenance and advance of public hygiene in the United States under the auspices of the general government, one might find it supplied in the publications of the service's Hygienic Laboratory. Bulletins Nos. 11 and 13, recently received at this office, call our attention to this matter. Bulletin No. 11 is taken up with An

Experimental Investigation of *Trypanosoma Lewisi*, by Assistant Surgeon Edward Francis. We are glad to learn from it that no cases of trypanosomiasis have yet been reported as having occurred in this country, but its existence in British Africa shows that, with the constantly increasing freedom of communication between Africa and our own shores, we may not long remain free from the disease. Incidentally Dr. Francis gives us some condensed data regarding the pathogenic action of *Trypanosoma Evansi*, *Trypanosoma Brucii*, *Trypanosoma equinum*, and *Trypanosoma equiperdum*, reputed to be respectively the causes of surra, the tsetse fly disease, mal de caderas, and mal du coit.

Bulletin No. 13 is distinctly the production of the laboratory's Division of Zoology. It contains A Statistical Study of the Intestinal Parasites of 500 White Male Patients at the United States Government Hospital for the Insane, by Philip E. Garrison, A. B. Brayton, H. Ransom, B. Sc., and Earle C. Stevenson, B. Sc.; A Parasitic Round Worm (*Agamomermis culicis*) in American Mosquitoes (*Culex sollicitans*), by C. Wardell Stiles, Ph.D.; and The Type Species of the Cestode Genus *Hymenolepis*, also by Dr. Stiles. All these contributions are likely to prove of great value in our study of the ætiology of disease, and Surgeon General Wyman's corps must be accorded fresh credit for its work in this direction.

TETANUS AND THE TOY PISTOL.

"Evidence accumulates," says the Philadelphia *North American* in its issue for July 15th, "that the favorite noise maker of the Fourth of July should be called the — blank cartridge." The same paper chronicles the fact that thus far thirty-seven deaths are reported to have occurred in the State of Pennsylvania since July 4th in consequence of injuries from the toy pistol—all by tetanus. Seven of these deaths occurred in Philadelphia. Such a mortality from a frightful disease occasioned by a single preventable form of injury ought to give rise to a determination to suppress the toy pistol. It may not be feasible to prevent its sale altogether, but at least the sale of it to minors may be done away with. We are glad to see it announced, therefore, that District Attorney Bell, of Philadelphia, has expressed his purpose to spare no efforts to

punish such shopkeepers as indirectly contributed to the deaths of the seven Philadelphia boys by selling them the pistols. He will begin proceedings, it is said, as soon as the coroner has officially informed him of the facts learned at the inquests. In Pennsylvania it is contrary to the law to sell explosives of any kind to minors.

From the point of view of the public safety, it is unnecessary to discuss the question of whether the tetanus germ is contained in the cartridge or in the material with which the hand is soiled. The central fact is that it is the pistol that does the business, it is the shot that in some way forces the deadly germ into the tissues. The toy pistol must be suppressed, or else we must be content to go on witnessing an enormous tetanus mortality every July. It may be possible to accomplish some reduction of this mortality by the immediate local use of desiccated antitetanus serum, as has been recommended by the New York Health Department, but it is far better to take sure means to prevent inoculation than to trust to any scheme for rendering it inoperative.

WHAT SHALL WE DO WITH THE CONSUMPTIVE WHO CANNOT LEAVE THE CITY DURING THE HOT SEASON?

It goes without saying that this question applies almost exclusively to the poor consumptive, for he who can afford it will be likely to leave the city and remain at least a few weeks in the mountains. But, as the Good Book says, we have the poor always with us. Physicians and laymen interested in the care of the consumptive poor of great cities are confronted with a serious problem, and nowhere is the situation sadder than in New York at this moment. Owing to the cruel Goodsell-Bedell bill, which became a law by the Governor's signature at the close of the last legislature in spite of the protests of the profession, the lot of the consumptive poor of the city of New York and, for that matter, of the whole State has been made a hard one. This bill has made it impossible even to establish the temporary tent colonies which had been projected by the New York City Health Department in the neighboring counties. We hope that our honored Governor has added this new chapter to phthisiophobia under a misapprehension, and that he will strive to retrieve this serious mistake. But, while we are

almost convinced that the new legislature will repeal this law, let us see what we can do in the meantime to make the existence of the thousands of consumptive poor in New York more bearable during the hottest days.

There are still some vacancies in the phthisis hospital on Blackwell's Island, which was established last year by Commissioner Folks, of the Department of Charities, and in the Riverside Sanatorium, established this year by Dr. Lederle and Dr. Biggs, of the Health Department of the city of New York. In both institutions patients needing constant medical attendance will be received from the most crowded tenement districts so far as the accommodation will permit. But there are large numbers of ambulant consumptives in New York who are in the poorest circumstances and who suffer intensely when the heat is oppressive, as it is so often during the months of July and August.

We would suggest two things for the relief of these sufferers: First, one or two recreation piers should be reserved exclusively for pulmonary invalids. There they could spend the greater part of the day; one or two nurses could be detailed to supervise them. Those who can should take their lunches with them. An appeal to our generous townsman, Mr. Nathan Straus would surely give us the necessary milk for these unfortunates. Thus at least a few hundred of the consumptive sufferers among the poor could be made comfortable. Another way of caring for the earlier cases of tuberculosis during the summer would be to take them on daily excursions on the river or sound. There they could be cared for in the same way as on the pier. Both methods of rendering the existence of these invalids more endurable during the hottest days will prove of immeasurable benefit in many respects. They all will feel better in the open air and their condition will improve. The contact with trained nurses and doctors (a physician should be attached to each pier and boat) will teach them practical lessons concerning the care of their sputum and their general behavior. The expenses of such an enterprise to the city will not be great compared with the immeasurable benefit which will be derived by the consumptives and the community at large.

The few hospitals within the city limits which

generously offer a number of their beds to consumptive sufferers could also increase the comfort of this class of patients during the hot weather by making the tops of their buildings roof gardens suitable for the open air cure and sleeping quarters for the consumptives at night. Of the top of nearly every hospital a roof garden can be improvised by covering it with a canvas roof to which are attached side flaps for use when protection from sun or rain is necessary. With a few flowers and shrubbery here and there the place can be made very attractive and the whole system installed with relatively little expense.

It has been my experience that the greatest movements to help the consumptive poor have always originated through the activity of some family physician who could interest his wealthy friends or patients or even the municipality in the cause. Therefore, should these lines be read by any one of my colleagues who is in the position to help, I beg him to exert his influence as much as he can on behalf of the poor consumptives now suffering and sweltering in our tenement districts. There is an opportunity for statesmen, city fathers, and philanthropists to do practical and timely good.

S. A. KNOPF.

THE CONTAGIOUSNESS OF TRACHOMA.

The efforts of the New York City Board of Health to exclude from the public schools children found to have trachoma and to stamp out the disease have attracted much attention, not only from the profession, but from the public as well. The disease has been spoken of as epidemic in New York and as being highly contagious, but it does not deserve such a reputation in either respect. It has been here many years, most prevalent among the classes of people least observant of sanitary rules. When there is no secretion, even though the disease is found to be present on eversion of the lids, there is little or no danger of contagion, but when there is a free discharge it is distinctly contagious if the secretion from the inflamed eye is brought into contact with another eye. It has been alleged that a dry climate, especially with a considerable elevation above the sea level, seems to confer a certain degree of immunity upon the in-

habitants of such a region, and there apparently is a racial predisposition to the disease on the part of Asiatics, Hebrews, Irish, and some other peoples, while still others, including negroes, are almost exempt. The great majority of the children excluded from the public schools in New York have follicular trachoma with little or no mucous secretion, and probably only a small proportion of the cases are at the time actually contagious, but they are apt to become foci of contagion, and it is well that the subjects should be excluded from the schools for the short time necessary for treatment. There is and has been no epidemic of trachoma in New York, but an endemic condition, continually reinforced by importations from other countries, has been taken hold of and may perhaps be stamped out in time by adherence to the methods adopted, early treatment in childhood and exclusion of immigrants having the disease. Meantime it is undesirable that an exaggerated conception of the contagiousness of trachoma, in the sense in which smallpox, scarlet fever, and measles are called contagious, should exist in the minds of those to whom the disease is unfamiliar. It would be a mistake to exclude from a general hospital a patient with follicular trachoma without inflammatory symptoms and a mucopurulent discharge on the ground that trachoma was a contagious disease, even as it would be a worse mistake to neglect precautions to prevent the transfer of secretion from the eyes of any patient to those of another. The ordinary custom observed, not only in hospitals, but also in all well regulated families, that each person shall use exclusively his or her own towels, wash cloths, and other articles on which such secretion might be carried from one person to another, is usually ample to prevent contagion from this disease.

MATTHIAS LANCKTON FOSTER.

TUBERCULOUS DISEASE IN PHILADELPHIA.

Dr. Alexander C. Abbott, the chief of the Philadelphia Bureau of Health, is vigorously advocating the adoption in Philadelphia of an ordinance classing tuberculous affections among the contagious diseases, in order that the bureau's physicians may have power to disinfect dwellings where such affections are found to exist. Only in this way, Dr. Abbott correctly argues, can efficient measures be taken to restrict the spread of consumption.

BANISHING PLAGUE FROM THE PHILIPPINES.

The excellent work done by the medical department of the United States Army in its campaign against the bubonic plague in the Philippine Islands is, we think, scarcely appreciated as it should be in the United States. Experience having demonstrated the importance of rats as factors in the spread of the disease, a campaign of destruction was inaugurated on January 15, 1902, and during the next two months 200,000 rats were destroyed, 40,000 of which were examined microscopically, with the result that 242 were found to be infected with the plague. As the result of this vigorous policy coupled with other sanitary measures, the number of deaths from the plague decreased from 432 in 1901, to a dozen or so in 1902, and at present both the city of Manila and the provinces are virtually free from this disease. The excellent results obtained in this campaign are second only to those which followed the inauguration of an active campaign against yellow fever by the medical department of the army in Cuba, and it is to be hoped that the department will receive its just meed of approbation in this instance, as it did in the former case.

MUSIC AND MOSQUITOES.

Now comes a musical scientist with a quick and delightful method of death for mosquitoes by the way of a combination of music and electricity. The scheme, as set forth in a recent issue of the *Philadelphia Saturday Evening Post*, transcends the utmost flights of imagination of Munchausen or Rider Haggard. It has been discovered, so our musician states, that a particular musical note is recognized as the "call of the mosquito." This note, when sounded with a great degree of intensity, causes the immediate precipitation of every mosquito within hearing distance toward the source of the musical note, and at the same time it causes in the mosquitoes brought close to the source of the music a complete temporary paralysis. By sounding the note in proximity to a wire screen charged with electricity, the mosquitoes are induced to precipitate themselves against the wire screen, upon which they are immediately "electrocuted."

The apparatus proposed by the author for this pleasing death consists of a tuning fork of the proper pitch operated electrically; all that is required when one hears the hum of the mosquito, on business bent, is to touch a button when the fork gives off an answering hum of the correct pitch and every mosquito within hearing distance will immediately precipitate himself, or what is more important, herself, upon the electrically charged screen, and be promptly and neatly electrocuted.

We record this new method of mosquito extermination with some degree of doubt as to its feasibility, but in view of the many curious things which have come to pass of late within the scientific world, we have almost reached the stage of being willing to accept anything as possible, and of condemning nothing as impossible, so we may look upon the installation of tuning fork outfits as a possibility in all well conducted hospitals, and in the homes of the well-to-do wherever the anopheles are found.

VIVISECTION IN ENGLAND.

Under the Act of 1876, vivisection was permitted in England under adequate and proper inspection, by persons appointed for that purpose. In a recent discussion of the question in the House of Commons on a proposed amendment of the Act referred to, one of the speakers urged the total abolition of vivisection in every shape, saying that the Act of 1876 was a sham, that the operations represented not only one operation but a series of researches, "often performed by persons who have no more skill than the children who break up a watch." Sir Michael Foster ably defended the practice of vivisection as carried out under the Act of 1876, and the Home Secretary defended both the Act and the method under which it was administered. No experiments are allowed in private cases, and as a rule they are only allowed in the great medical schools and in the laboratories of pathological institutions. Last year 319 persons were licensed, of whom 112 did not perform any experiments. Of the 62 places registered for experimentations, 17 were in London, the remainder being scattered through 25 other towns. The Home Secretary explained that every place of experimentation was visited by the inspector at least once a year, and as a rule many times each year, while the inspector was in constant communication with the licensees all over the country. The Secretary objected to an increase in the number of inspectors, as being unnecessary, and stated that he thought that the importance of their attainments and work was not sufficiently appreciated and recompensed by the government. The indications are that no change will be made in the present regulations.

Six Cases of Empyema. By O. F. Rowley, M. R. C. S. (*British Medical Journal*, May 23d).—The author reports six cases of empyema which show that pus may be present in the pleural cavity with but few symptoms and a moderate degree of pyrexia; that suspected serous effusions may unexpectedly be found to be purulent, and that in cases following pneumonia, especially in children, the effusion may be purulent early in the case.

News Items.

Society Meetings for the Coming Week:

MONDAY, July 20th.—New York Academy of Medicine (Section in Ophthalmology); Chicago Medical Society.

TUESDAY, July 21st.—New York Academy of Medicine (Section in General Medicine); Buffalo Academy of Medicine (Section in Pathology); Ogdensburg, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Medical Society of the County of Kings, N. Y.; Baltimore Academy of Medicine.

WEDNESDAY, July 22d.—New York Academy of Medicine (Section in Laryngology and Rhinology); American Microscopical Society of the City of New York; Philadelphia County Medical Society; New York Dermatological Society (private).

THURSDAY, July 23d.—New York Academy of Medicine (Section in Obstetrics and Gynecology); Pathological Society of Philadelphia; New York Celtic Medical Society.

SATURDAY, July 25th.—Harvard Medical Society, New York (private).

Change of Address.—Dr. A. Robin, to 817 Adams street, Wilmington, Del.

NEW YORK, CITY AND STATE.

Tetanus after July 4th.—Four cases of tetanus have been reported in the city as caused by accidents on the Fourth of July.

Incubators at Coney Island.—There are eight premature babies in the incubators at Coney Island, where they attract much attention, particularly from women. No charge is made for the care of the infants.

The Water Supply of Buffalo is reported by Health Commissioner Greene as fair. The bacteriological report states that "the condition of the water is good from the bacterial standpoint, and in its normal condition for this season of the year."

Free Ice Wanted in Brooklyn.—Contributions are solicited from the charitably disposed, by the health department of Brooklyn, to provide ice for the tenement house dwellers. Arrangements have been made with a company to deliver ice at two dollars and a half per ton. It will be placed mainly where there are sick babies.

Visit of Dr. Billings.—Dr. Frank Billings, dean of Rush Medical College, Chicago, paid a hurried visit to New York last week to consult with John D. Rockefeller, and W. R. Harper, president of the University of Chicago, regarding the proposed amalgamation of Rush with the university. The matter was practically settled, but Mr. Rockefeller's plans for endowing the medical school, have not yet been made public.

Trained Nurses Employed by the Board of Health.—In addition to the force of men working under direction of the board of health in the campaign against tuberculosis, three trained nurses have been appointed. One of these follows up cases reported to the dispensaries, and the others go from house to house distributing "information for consumptives and those living with them." The nurses were engaged to enlist the sympathies of women relatives of the afflicted and the amount of ignorance and obstinacy they have to combat, is large.

An Appeal for Consumptives.—The Charity Organization Society made an appeal some months ago for \$5,000 to build a country home for young women with incipient tuberculosis. With this amount a suitable house can be rented and furnished, and an average of twenty patients cared for. Two thousand dollars have been subscribed so far, and the society appeals to the public to pay in the remainder.

The Babies' Directory.—In conformity with the latest plan of the department of health in New York city, a card index has been made containing the names of 25,000 babies under six months of age, with the address of the child and also the name and address of its parents. It is expected that within a short time the number will reach 50,000. All infants, rich and poor alike, are to be indexed. The Babies' Directory will before long include all children born since August, 1902. The summer corps of the health department is now ready to start on its work of investigating and gathering statistics as to the health and condition of the infants thus far tabulated.

Jefferson County Branch of New York State Medical Association.—Members of the New York State Medical Association, residing in Jefferson County have organized a district branch. The following officers and committees have been elected for the ensuing year: President, Dr. B. C. Cheeseman; vice-president, Dr. P. H. Johnson; secretary and treasurer, Dr. Florence Sherman. Representative to the New York State Medical Association meeting to be held in New York city next October, Dr. A. J. Dick, and Dr. C. C. Kimball, alternate. Executive Committee—Dr. J. R. Sturtevant, Theresa, three years; Dr. W. H. Humphries, Adams, two years, and Dr. Ross, one year. Committee on Ethics, Membership and Discipline—Dr. Miner, Mannsville, Dr. Sturtevant and Dr. C. C. Kimball. Legislative Committee—Dr. F. B. Severance, Mannsville; Dr. Goss, Adams, and Dr. Lawler, Carthage.

State Legislation Regarding Sewers.—In accordance with a recent act of the legislature the State department of health is compiling statistics regarding the sewer systems of the State with a view of devising some method whereby the pollution of streams can be stopped. The recent typhoid fever epidemic in Ithaca, due to the pollution of the water, used for drinking purposes, by the sewage, was the principal reason for the enactment of the law.

Every health officer in the State is required to file with the State department a report on the sewage system. They are also required to file a map in colors showing the entire system as it existed on May 7, 1903. The map must show the sewer lines; invert elevations at all changes of grade, rates of grade, sizes and kind of sewers, also locations of all manholes, inspection pipes, flush tanks, inverted siphons, surface water inlets, sewer outlets, overflows and disposal works. The health officer must also give the following information: Total length of sewers in miles; total number of service connections; total estimated population sewerage into the system.

The New York Floating Hospital and the Seaside Hospital.—During its first week the Floating Hospital has carried mothers and children numbering into the thousands. The Seaside Hospital is also crowded with sick infants. The trustees of the guild appeal to the citizens of New York to continue the eminently philanthropic work. The ship *Helen C. Juilliard*, now makes daily trips to Seaside Hospital at New Dorp, S. I. On Mondays and Wednesdays, it takes passengers at East One Hundred and Twelfth Street, East Twenty-fourth Street, and East Third Street; on Tuesdays and Fridays, at West Fiftieth Street, West Thirty-fifth and West Tenth Streets; on Thursdays and Saturdays at East Twenty-fourth, East Third and Rutgers Streets. Tickets may be obtained by presenting the baby at the board of health headquarters, at several of the hospitals, or by applying through a physician direct to St. John's Guild, 501 Fifth Avenue. There is a bathroom on the boat, with hot and cold water, porcelain tubs, and shower baths, and a quarantine department for cases of whooping cough. Mothers have a warm meal at noon and unlimited milk is ready for the babies. The more serious cases may remain a week at Seaside Hospital where there are beds on the piazza. As many trips as desired may be taken. The institution is supported mainly by private charity, although the city makes a per capita allowance.

PHILADELPHIA AND PENNSYLVANIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

DISEASES.	Week end'g July 4.		Week end'g July 11	
	Cases.	Deaths.	Cases.	Deaths.
Small-pox.....	30	8	54	11
Diphtheria.....	37	7	46	6
Scarlet fever.....	33	4	48	5
Typhoid fever.....	33	20	86	17
Consumption.....		58		57
Cerebrospinal fever.		1	1	1

This table shows an increase of fifty-one in the total of cases of contagious disease as compared with the preceding week.

The Addition to St. Agnes's Hospital at Broad and Moore Streets, will shortly be under way, the architect's plans having been completed and submitted to the trustees of the institution.

Nurses' Home for Jefferson.—It is reported that Jefferson Medical College has purchased the property 1023-25-27 Walnut Street for the purpose of building a nurses' home. The present establishment is in Washington Square.

Bequest to the Medico-Chirurgical College.—By the will of Dr. Spencer Morris, formerly Professor of Medical Jurisprudence and Toxicology at the Medico-Chirurgical College, \$12,250 is bequeathed to that institution, the income of which is to be awarded annually to the member of the graduating class who receives the highest general average at the final examination for the degree of Doctor of Medicine.

The Philadelphia Hospital.—The new chief nurse, Miss Margaret Donahue, assumed her duties on July 14th. It is said that new methods for the advancement of the hospital and the nurses' school are contemplated.

Dr. Ravenel's Return.—Dr. Mazyck P. Ravenel, of the University of Pennsylvania, and Mrs. Ravenel have returned from Europe. Dr. Ravenel made a special study of tuberculosis in Great Britain, and was present by invitation at the opening of the Johnston laboratories at University College, Liverpool.

The Polyclinic Hospital.—During the month of June 1,704 new cases were treated in the dispensaries, and 6,311 return visits were paid, making a total of 8,015 cases treated in the dispensaries during the month. In the receiving ward 550 cases were treated during the same period and 85 patients were admitted to the wards of the hospital; 91 were discharged.

Threatened Epidemic of Smallpox.—There seems to be fear of an epidemic of smallpox, from the increasing number of cases reported, and the strenuous efforts of the health authorities to enforce universal vaccination. Laxity of discipline at the Municipal Hospital has been alleged, drivers of supply wagons having easy access to the smallpox section. Eighteen houses are quarantined in the twenty-eighth ward alone. There are one hundred and twenty-five cases in the Municipal Hospital where the staff of nurses has been increased.

Mary M. Johnson's Bequests.—Some of the medical and other institutions made beneficiaries by the will of the late Mary M. Johnson, are the following: Pennsylvania Hospital, \$10,000; Insane Department, for free beds, \$10,000; Asylum for the Relief of Persons Deprived of Their Reason, \$10,000; University Hospital, \$10,000; Woman's Hospital, of Philadelphia, \$10,000; Howard Hospital, \$5,000; Orthopædic Hospital, \$5,000; Children's Seashore House, Atlantic City, \$5,000; Philadelphia Home for Incurables, \$2,000. In all, over \$130,000 was distributed.

Consumption Sanatoria.—Dr. Flick, manager of the Phipps Institute for the Cure and Prevention of Consumption, was highly pleased with the probability of the city of New York appropriating \$500,000 to build a sanitarium for the treatment of incipient cases of consumption there. In speaking of the move he said: "New York does not mean to be left behind in this matter. I think it would be a good idea for Philadelphia to follow the example of New York, only I think we can go them one better. What the city should have is a large central hospital where men, and women, too, in the earlier stages of consumption could go for treatment and at the same time keep at work. It is not a good plan to pauperize patients. Those who are able should be allowed to pay for their treatment and board just what it costs. Then, when they are cured, as they can be, they will have retained their self respect, if they have not been able to retain their old places."

Blockley Almshouse.—The new pavilion for consumptives at the Blockley almshouse has been completed. On July 14th the new addition was inspected by the mayor. It is the intention of the medical staff of the almshouse to have the consumptives in the air as much as possible. The roof has not only been made adaptable for the purpose, but has been put in such condition as to make it appear like a Southern resort.

Death of Dr. Charles M. Wilkins.—Dr. Charles M. Wilkins, of Philadelphia, died suddenly on July 2nd. Dr. Wilkins was an extensive traveler, and had crossed the Atlantic twenty-five times and the Pacific nine times. At one time he was secretary to the American minister at London, and he was physician to the Empress Eugénie before the downfall of the second empire. He was on terms of intimate acquaintance with many prominent persons, among them being the present King of England (when Prince of Wales), Lord William Beresford, the Duke of Norfolk, Professor Fleury, many governors of American States, and prominent Americans.

Fourth of July Tetanus.—The Fourth of July celebration has had its usual result. Up to this writing, eight people have died from lockjaw brought on from injuries acquired during the "glorious Fourth." The first case of tetanus was treated at the Medico-Chirurgical Hospital on July 9th. Frank Layfield, twelve years old, was slightly hurt on the Fourth, but after the wound had been dressed nothing further was thought of the matter. On July 9th he went home at noon and complained of not feeling well. A few moments afterwards his jaws became locked and he was rushed to the hospital. A portion of his skull was trephined and imported antitoxine serum was injected into the brain. The patient bore up well under the operation and the physicians at the hospital state that there is every hope for his recovery.

Berks County (Pa.) Medical Society.—At the monthly meeting held on July 14th, Dr. Saul presented a very interesting patient, a girl two years and a half old, covered with a peculiar, scarlet, papular eruption; emaciated, with ulcerations of the four extremities; on the right hand the thumb had entirely sloughed off; there was a large, deep, sloughing ulcer of the right index finger, covered with a thick discharge of pus, of creamy consistency. Several other fingers of the right hand were affected, also the fingers of the left hand, none of which has as yet sloughed off. There was apparently no pain, the parts were thickened, cyanosed, and opened, just as in a periosteitis. A discharge of thick, creamy pus followed with a tendency not to heal, but to sloughing. The lower extremities had as yet only reached the cyanotic, swollen condition. The child had an apparently bronchial cough with no expectoration. She was well until January 1, 1903, since which time these conditions had existed. The parents were healthy, two older children being well nourished, and well. In the discussion, Raynaud's disease, syphilis, and tuberculous disease were mentioned, no one being certain as to the prob-

able cause, or nature of the case. The child was restless, and did not sleep until the parts were disturbed, when it fell asleep, and slept until sometime after the dressing or disturbance was completed. Dr. J. G. Hoffman read a paper on the treatment of jaundice. He prefers the early use of calomel, half a grain every half hour, until two grains have been taken, followed by salines. In chronic cases the sodium arsenite in doses of one quarter to one half a grain, three times daily, have given him the best results.

CHICAGO AND ILLINOIS.

Tetanus from Firearms.—Eleven cases of tetanus following wounds from toy pistols, firecrackers, etc., on the Fourth of July, have been reported.

St. Luke's Hospital and the Chicago Baptist Hospital are beneficiaries under the will of the late Horace P. Taylor, to the extent of \$94,000, to be divided equally between them.

Dr. Graves's Purchase.—The Ward Hospital, a well and favorably known private institution at Cañon City, Colo., has been purchased by Dr. C. Herman Graves, chief surgeon of the Chicago and Northwestern, and Baltimore and Ohio railroads.

Rush College.—Dr. Shephardson, secretary to President Harper, of the University of Chicago, is said to have denied that Mr. Rockefeller promised a donation of \$6,000,000 to Rush College, if the trustees could succeed in raising \$1,000,000, as has been recently reported.

Maragliano's Serum Endorsed.—The Chicago health department has undertaken a series of experiments with a serum made according to Maragliano's formula, as given at the Madrid Congress last April. It is stated that the results so far in immunizing against tuberculosis have been encouraging.

City Water Contaminated.—The heavy rainfall last week filled the Chicago water supply with sewage to such an extent that the health department was obliged to call attention to the matter and advise the boiling of all water intended for drinking purposes. Advice was given to owners of flooded basements to dry them as soon as possible and sprinkle them with calcium chloride.

GENERAL.

A New Chair of Surgery has been established at the New Orleans Polyclinic, and Dr. C. Jefferson Miller has been chosen to fill it.

New Marine Hospital.—A marine hospital is to be erected at Defiance, Ohio. Dr. G. A. Rigrish and Dr. J. J. Reynolds will be the attending physicians.

The Pennsylvania National Guard.—Dr. Wm. Wadsworth, coroner's physician of Philadelphia, has been elected second lieutenant of Company L of the Second Regiment.

The Suffolk Hospital and Dispensary of Boston has recently made some important changes in its medical staff, among its additions being Dr. Samuel J. Harris, an eye and ear specialist.

The Boston Insane Hospital.—Mayor Collins has approved a contract for installing an electrical system in the women's department of this hospital. The cost of the tender is \$14,250.

A Woman Physician Accused of Abortion.—A woman physician, of Kansas City, Mo., has been committed for trial on a charge of manslaughter, resulting from the performance of criminal abortion.

The Michigan State Board of Health was adjourned at its last meeting to meet at Grand Rapids on July 17th. Its business there will include the examination of embalmers, and the inspection of plans for new buildings at certain State institutions.

City Physician for Kansas City, Kan.—Dr. William F. Waite was appointed city physician of Kansas City, Kan., recently, by Mayor T. B. Gilbert. Dr. Waite formerly held the position of county physician. He succeeds Dr. J. F. Hassig.

Government Hospital for the Insane.—Dr. M. J. Shack, formerly first assistant physician of the Government Hospital for the Insane at Washington, D. C., has been appointed acting superintendent to replace Dr. Richardson, who died last week.

New Superintendent for Albany Hospital.—The board of trustees of the Albany Hospital for Incurables at a meeting yesterday noon appointed Miss Mary McHugh, general superintendent of the institution to fill the vacancy caused by the death of Mrs. Eleanor Spensely.

Richmond Academy of Medicine and Surgery.—Tuesday, July 14th, the Richmond Academy of Medicine and Surgery had a regular meeting, at which the following subject was discussed: Pathology and Treatment of Habitual Constipation, Dr. M. W. Peyser, opening the discussion.

A Forest Sanatorium.—Dr. Michael Senn, of Chicago, allied, it is said, with a number of New York and Chicago specialists, has purchased five thousand acres of land in Itasca County, Minnesota, on which he intends to erect a sanatorium. The site is in the centre of a thickly wooded pine tract.

A Campaign against Weeds in Denver.—Believing that weeds growing in the city streets and on vacant lots furnish shelter for microbes and filth of all kinds and are also the cause of certain forms of asthma and hay fever, the health board of Denver has organized a battalion of men armed with scythes and mowing machines to exterminate such plants. As Denver is becoming a popular summer resort, the cosmetic effect of this extermination has been also kept in view, and the appearance of the city will be much improved.

The Payment of the Boston Floating Hospital Trip Expenses.—The Bon Ami Club, of Dorchester, paid the expenses of the day's trip on the Floating Hospital on July 10th. This seems a very practical method for women's and other philanthropic clubs, to aid the suffering poor of their localities.

Precautions Against Yellow Fever.—Surgeon-General Wyman has ordered his assistants at Tampico, Mexico, and Limon, Costa Rica, to take the temperature of all passengers leaving those parts for the United States, and to detain those whose temperature is above normal. Yellow fever exists at both these ports.

A Dog with Smallpox?—A dog which had been living in the pesthouse at Newburg, near Cleveland, Ohio, is said to have contracted smallpox, its body being covered with pustules which look characteristic. The animal is the property of a family, a member of which was attacked with the disease and whom the dog accompanied to the pesthouse.

Two New Albany Hospitals.—The mayor of Albany has approved two ordinances, authorizing the construction of a reception pavilion to provide for the care of persons afflicted with contagious disease, and the erection of a smallpox hospital. The city is empowered to loan its credit in order to procure funds for the expense entailed by the latter.

Scarlet Fever at Ann Arbor, Mich.—A meeting of physicians was held recently at Ann Arbor, to consider the best steps to be taken to deal with the threatened epidemic of scarlet fever, of which disease twelve new cases developed between July 1st and July 8th. Dr. Vaughan, Dr. Dock, Dr. Westsinger, Dr. George, Jr., and Dr. Breakly, Jr., were appointed a committee to take up with the city council the question of a detention hospital.

The Medical College of Virginia.—Dr. J. Shelton Horsley, of El Paso, Tex., has accepted the chair of principles of surgery at the Medical College of Virginia, Richmond, Va. He has also been elected to one of the positions of attending surgeon to the Memorial Hospital. He expects to leave El Paso on July 6th, and will, after a vacation, locate himself permanently in Richmond by the middle of August.

The Ohio Society for the Prevention of Tuberculosis.—This is not strictly a medical organization, but was formed in the interest of the public at large, physicians as well as the laity being among its members. At a meeting held in Cleveland, on June 17th, the discussions included talks on proper sanitation, the home and sanatorium methods of treating the disease being dealt with at length. One of the principal addresses of the session was made by Dr. Walter Wyman, surgeon-general of Public Health and Marine Hospital Service, of Washington, D. C. Judge E. J. Blandin, of Cleveland, addressed the evening meeting, on the Relation of Government to Hygienic Conditions.

Anti-Quack Legislation in Canada.—At the meeting of the Ontario Medical Council, held on July 8th, Dr. Bray, of Chatham, gave notice of a resolution having in view the promotion of legislation to put a check upon the increasing number of quack doctors. Two members of the College of Physicians were also reported to the Discipline Committee on account of their methods.

The University College of Medicine.—The chair formerly held by the late Dr. Lewis Wheat, in the University Medical College, at Richmond, Va., has been combined with that of anatomy, under the title of Anatomy and Genitourinary Surgery, and Dr. James W. Henson has been elected to fill it. A lectureship on dermatology has been established, with Dr. T. W. Murrell as lecturer. Dr. W. L. Peple has been assigned to the chair of histology and appointed director of the microscopical laboratories.

Boston Dispensary.—This institution is said to be in great need of funds, and is also hampered for lack of room and modern equipment. An additional building is urgently required, and this is estimated to cost \$65,000. The number of new patients treated last year was 9,902, the total number of patients seen at the central office was 22,274, and the number of home visits made by the district physicians was 5,036. The physicians' services are given gratuitously.

Boston Mortality Report.—The number of deaths reported to the board of health for the week is 202 as against 190 the corresponding week last year, showing an increase of twelve deaths, and making the death rate for the week 17.46. The number of cases and deaths from infectious diseases is as follows: diphtheria, 34 cases, 1 death; scarlatina, 21 cases, 2 deaths; typhoid fever, 19 cases, no deaths; measles, 23 cases, no deaths; tuberculosis, 20 cases, 24 deaths; smallpox, no cases, no deaths. The deaths from pneumonia were 15, whooping cough 1, heart disease 17, bronchitis 1, marasmus 3. There were 24 deaths from violent causes.

California State Board of Medical Examiners in Trouble.—Suit to oust the State board of medical examiners of California has been begun in the name of the people through the attorney-general, the petitioner being Dr. D. A. Hodghead, dean of the College of Physicians and Surgeons of San Francisco. The complaint sets forth that the defendants held their places by virtue of having been elected to represent on the board the Medical Society of California, the California State Homœopathic Medical Society and the Eclectic Medical Society of the State of California, and the petitioner holds that these are simply private organizations with no legal right to appoint anybody to public and salaried offices.

A General Army Hospital.—According to the *Army and Navy Journal* Surgeon-General O'Reilly, of the army, is hopeful that the incoming Congress may be persuaded to provide for the construction of a great modern military hospital in or near Washington, such as was proposed to the last Congress,

and to encourage efforts in that direction he is having prepared, and will exhibit to the responsible committees of both houses, plans and specifications of an institution adapted to the needs of the service to be established at Washington or elsewhere, though it is required in Washington more urgently than anywhere else. The site of the present military hospital at Washington Barracks is needed for the building of the Army War College and the Engineer School of Application, so that a rearrangement of some sort seems inevitable. It is estimated that a general hospital equal to the needs of the service and capable of great educational usefulness in connection with the Army Medical School could be built for \$250,000.

Dr. Lorenz's Assistant takes Chair of Orthopædic Surgery.—Dr. Frederick Müller, of Chicago, who has been the assistant of Dr. Adolf Lorenz, of Vienna, for a long time, has been engaged as professor of orthopædic surgery for the coming year by the directors of the Milwaukee medical college. Following is the full quota of instructors engaged for the next school year: E. W. Bartlett, M. D., emeritus professor of ophthalmology and otology; Thomas Fitzgibbon, A. M., M. D., professor of gynæcology; John T. Scollard, M. D., professor of internal medicine; Franz Pfister, M. D., associate professor of rhinology and laryngology; W. T. Nicols, M. D., clinical assistant in gynæcology; W. S. Stanley, M. D., instructor in ophthalmology and otology; H. S. Steenberg, M. D., clinical assistant in medicine; G. G. Zohrlaut, M. D., clinical assistant in gynæcology; Julius Walter Kleinboehl, M. D., clinical assistant in gynæcology; J. J. Seelman, M. D., demonstrator in pathology; M. L. Henderson, M. D., clinical assistant in surgery; J. C. Zartzin, M. D., instructor in medicine; E. A. Kowalke, Ph. G., instructor in pharmacy; G. F. M. Scholz, M. D., clinical assistant in medicine.

The Medical Council of Ontario, Canada, held its thirty-eighth annual meeting on July 8th. Officers were elected as follows: Dr. J. A. Robertson, of Stratford, president; Hon. Dr. Sullivan, of Kingston, vice-president; Dr. H. Wilberforce Aikins, of Toronto, treasurer; Dr. R. A. Pyne, of Toronto, registrar; Christopher Robinson, K. C., solicitor; Alex. Downey, stenographer for college; Dr. J. C. Paton, of Toronto, auditor; Charles Rose, prosecutor. The following standing committees was also appointed: Registration—Dr. Campbell, Dr. Lane, Dr. Stuart, Dr. Klotz, Dr. Johnson, Dr. Thornton, and Dr. Gibson. Rules and Regulations—Dr. Lane, Dr. Mearns, Dr. Spankie, Dr. Adams, and Dr. Hillier. Finance—Dr. Henderson, Dr. King, Dr. Griffin, Dr. MacArthur, and Dr. Brock. Printing—Dr. Macdonald, Dr. King, Dr. Stuart, Dr. Hardy, and Dr. Thorburn. Education—Dr. Moorhouse, Dr. Macdonald, Dr. Moore, Dr. Henry, Dr. Spankie, Dr. Britton, Dr. Luton, Dr. Bray, and Dr. Temple. Property—Dr. Thorburn, Dr. Thornton, Dr. Britton, Dr. Glasgow, and Dr. Campbell. Complaints—Dr. Griffin, Dr. Glasgow, Dr. Brock, Dr. Johnson, and Dr. Sangster. Among the questions to be discussed are changes in matriculation and in the medical curriculum.

Pith of Current Literature.

LANCET.

June 27, 1900.

1. Muscular Movements and their Representation in the Central Nervous System (Croonian Lectures III and IV). By C. E. BEEVOR.
2. The History of Medicine (Fitzpatrick Lectures), By J. F. PAYNE.
3. On the Diagnosis of the Cause of Jaundice, By SIDNEY PHILLIPS.
4. Note on the Persistence of the Gruber-Widal Reaction in Convalescence from Typhoid Fever, By H. S. D. BROWNE AND K. E. CROMPTON.
5. On the Use of the Röntgen Rays in the Diagnosis of Pulmonary Disease, By J. F. HALLS DALLY.
6. A Brief Note on a Bacillus in a Case of Ulcerative Colitis, By THEODORE FISHER.
7. Three Cases of Cholecystectomy, By F. S. EVE.
8. The Prevalence of Pneumonias in Infancy, By S. V. PEARSON.
9. Respiratory Crisis in Graves's Disease, By J. G. SHARP.

3. Jaundice.—Phillips states that obstruction in the common bile duct leads to absorption of bile from the biliary passages and consequent jaundice. Such obstruction is shown by absence of bile from the stools (the most trustworthy sign), enlargement of the gall bladder, and enlargement of the liver. The causes of obstruction in the common duct giving rise to jaundice are: (1) Morbid conditions involving the duct or its orifice in the duodenum: (a) *Catarrh*. When the onset of the jaundice is rapid, with white stools, slight enlargement and tenderness of the liver and gall bladder, but without pain or ascites, it is probably due to catarrh, especially if there have been precedent symptoms of gastro-duodenal indigestion. If the jaundice does not lessen and bile begin to appear in the stools after five or six weeks, the diagnosis must be abandoned. (b) *Duodenal ulcer*. Jaundice with white stools and no ascites, coming on after the patient has suffered for some time from epigastric pain and tenderness, with hæmatemesis or melæna, is ascribable to duodenal ulcer. (c) *Duodenal cancer*. If, in addition to the symptoms of duodenal ulcer, a tumor can be felt in the duodenal region, or if there is lymphatic enlargement, the jaundice is probably due to cancer of the duodenum. (d) *Stricture of the duct*. Jaundice coming on at birth, with white stools, is ascribable to congenital stricture of the duct and is soon fatal. (2) Foreign bodies in the common duct. *Biliary and pancreatic calculi, and parasitic structures*. Jaundice, with white stools and enlargement and tenderness of the gall bladder and liver, coming on a few hours after a paroxysm of acute abdominal colic, with vomiting and perhaps fever, is usually due to a foreign body in the common bile duct, and in the absence of evidence of hydatids of the liver, is presumably a biliary calculus. A pancreatic calculus impacted at the orifice of the duct may cause the same symptoms, but usually there is less pain. The diagnosis of calculus should not be made where a history of colic is absent, or where it occurred at some long previous date. (3) Pressure on the duct from without: (a) *Perihepatitis and ad-*

hesions. Jaundice without bile in the stools, but with ascites, paroxysmal local pain and pyrexia, and evidences of syphilis, gall stones, gastric ulcer, etc., is usually due to perihepatitis. When ascites is absent, the diagnosis is difficult. The severer the pain and the intenser the jaundice the greater the probability of calculi. But they and perihepatitis frequently coexist. (b) *Tumors, aneurysms, or enlarged glands in the portal fissure*. Any tumor pressing upon the common bile duct sufficiently to occlude it, will press also upon the adjacent venæ cavæ, so that there is always ascites as well as jaundice. When only nodules of cancer on the liver can be felt, the jaundice and ascites probably result from pressure on the bile duct by enlarged glands in the portal fissure. In the absence of ascites, jaundice should never be attributed to cancer of the liver. (c) *Disease of the pancreas*. When jaundice comes on with white stools, without pain or the indications of perihepatitis or ulcer, and when a tumor can be felt in the position of the head of the pancreas, it is due to pancreatic disease. Where no tumor can be felt the diagnosis is difficult, but if the jaundice lasts over six weeks it is probably due to disease of the pancreas and not to simple catarrh. *Jaundice without obstruction in the common duct* occurs in many conditions. In many cases it appears to be due to absorption of bile from the small intrahepatic ducts. No explanation is entirely satisfactory. Among the conditions in which it occurs, are: (1) Poisons circulating in the blood, such as phosphorus, toluylediamin, etc.; (2) toxines resulting from yellow fever, the exanthemata, pyæmia, etc.; (3) congestion of the liver; (4) hepatitis; (5) acute atrophy of the liver, and (6) conditions of the nervous system.

4. Persistence of the Widal Reaction.—Browne and Crompton have examined the blood of persons who had typhoid fever in 1899-1901 for the Widal reaction, with a view to determine the correctness of the generally accepted belief that the reaction may persist in the blood for months or years after recovery from the disease. In sixty-eight cases in which the blood was examined from one to forty-eight months after recovery, only three cases gave a positive reaction. The time after the original attack was respectively two, twelve, and thirty-eight months. This is a much smaller proportion of positive reactions than is given by other authorities (Renard, Elsberg, Widal).

5. X Rays in Pulmonary Disease.—Dally, after describing the apparatus essential for radiography and radioscopy of the thorax, and the appearances met with in the normal thorax, goes on to speak of the results obtained in cases of pulmonary disease. He finds that unilateral limitation or loss of mobility of the diaphragm is the earliest indication of tuberculous mischief in the lung. Before any shadow due to a tuberculous process is visible, the action of the diaphragm becomes evidently less on the unsound side. When the disease has progressed so that the characteristic stippled shadows are visible in the lung, limitation of diaphragmatic mobility may become more pronounced or may decrease. Marked limitation may occur when only the apex of the lung is involved. The typical shadow cast by

early pulmonary tuberculosis is mottled or stippled. It is simulated only by new growth, which is distinguished by the distribution of the shadows, peculiar physical signs, etc. Consolidation throws a shadow of moderate density, and this is increased if the lung is congested. Caseation throws a still darker shadow. Appearances presented by cavities vary according to size, position, whether they are full or empty, etc. If at the apex and empty, they are unusually transradiant; if full of pus, they may not be noticeable. Acute dry pleurisy casts no shadow; a purulent effusion casts a darker shadow than a serofibrinous effusion. Emphysema and old cases of asthma are indicated by brightness of the lungs as a whole or in part. Bronchitis cannot be diagnosed by the x rays. In early pneumonia a light shadow is cast, becoming denser as the disease progresses. By the aid of the x rays the existence of a central patch of pneumonia may be revealed. Pulmonary gangrene can be diagnosed from foetid bronchitis, as the former gives a well-defined opacity. In conclusion the author states: (1) that the Röntgen rays form an important adjunct to the methods of physical investigation previously in use. (2) That unilateral limitation of diaphragmatic movement, as seen by the fluoroscope, is often the earliest indication of commencing pulmonary tuberculosis. (3) That by the aid of the Röntgen rays pulmonary tuberculosis can be diagnosed at an earlier stage than by any other means at our disposal.

6. A Bacillus Found in Ulcerative Colitis.—

Fisher reports the case of a man aged sixty-six years, who had died from ulcerative colitis, where the ulceration of the large intestine was very extensive. Cultures were taken from the liver, but at the end of twenty-four hours they showed no growth. Seven days later there was well marked growth—gas formation in glucose agar, and an apparently typical colon growth on gelatin and plain agar. Under the microscope a preparation from the agar culture showed a growth similar to anthrax—felt-like masses composed of interlacing chains of bacilli. There seemed little doubt that the organism was a variety of the colon bacillus. A similar organism was also obtained from the spleen.

8. Infantile Pneumonia.—Pearson brings forward data to show that croupous pneumonia is more common during the age of infancy than at any other succeeding age, an opinion at variance with that at present generally accepted. He holds that during the first two years of life croupous pneumonia is not in order of frequency very far below bronchopneumonia, which is admittedly much more prevalent during infancy than at any other succeeding period. Primary bronchopneumonia is, in the majority of cases, perfectly distinct from croupous pneumonia, and even those primary cases which occasionally simulate croupous pneumonia closely should be recognized as distinct from that disease.

9. Dyspnœa in Graves's Disease.—Sharp reports two cases of Graves's disease with respiratory crises, the respirations succeeding each other with rapidity (not less than sixty a minute), the condition being not unlike that seen in atropine poisoning. Opium had a marvelous action in slowing the respirations and benefiting the patient. The condi-

tion is probably toxic. The poison usually produces only the ordinary symptoms. When present in large amount, it is excreted by the stomach, and a gastric crisis occurs. Rarely, when present in very great amount, or when the excretory organs fail to handle it, it reaches the respiratory centre and causes respiratory crises, such as are here detailed.

THE BRITISH MEDICAL JOURNAL

June 27, 1903.

1. The History of Medicine (Fitzpatrick Lectures),
By J. F. PAYNE.
2. Muscular Movements and their Representation in the Central Nervous System. (Croonian Lecture III),
By C. E. BEEVOR.
3. The Ætiology of New Growths,
By K. W. MONSARRAT.
4. A Criticism of Current Doctrines Concerning Hernia,
By E. DEANESLY.
5. Ætiology and Treatment of Mucomembranous Colitis,
By DR. BOTTENTINT.
6. Case of Perforation of the Aorta by a Pin Accidentally Swallowed,
By SIR I. OWEN.
7. The Epidemiology of Plague: Note on the Fleas of Rats,
By F. TIDSWELL.
8. Potassium Permanganate in the Treatment of Lupus,
By J. H. EDWARDS.

3. New Growths.—Monsarrat summarizes his paper as follows: (1) Cell activity and cell type must always be the resultant of biochemical reaction along the lines of Ehrlich's theory of immunity. (2) Cell proliferation as a form of cellular activity is always the resultant of such reaction. When it takes place as the result of increased availability of normal food material, the new cells produced conform to the type of the parent cells. When it follows the action of assimilable materials of abnormal constitution new cell types are evoked, variants on the type of the parent cells. (3) Cell proliferation of the latter type takes place in certain microparasitic infections. (4) The new cell types thus evoked exhibit various degrees of instability. (5) In the granulomata their stability is considerable, in certain growths which result from infective agents (condyloma) the equilibrium of the new type appears to be stable. (6) In the so-called true tumors, celltypes arise as variants on the normal cells of the organ or tissue of origin. The ways in which such cell variants may be evoked are not discussed, but that they may result in some cases from the action of microparasites is a reasonable view. (7) These cell types are stable; their stability is due to the capacity of the particular variant to attach to itself and to assimilate material in conformity with its type. (8) In the simple tumors they are only locally stable, and are not immune to reactionary influences outside the tissue of origin and the normal relationships of parenchyma and connective tissue. (9) In the malignant growths they possess wide range of stability and immunity, and the degree of this is the measure of their capacity to form metastases, while local infiltration, the other histological characteristic, is dependent upon the principle of chemotaxis, the cells extending in those directions in which their variant and aberrant biochemical affinities enable them to annex material conformable to the building-up of their characteristic type.

4. Aetiology of Hernia.—Deanesly, in opposition to the currently accepted views, holds that all, or almost all inguinal hernias are congenital—*i. e.*, that there is a preexistent sac formed by a patent or partially patent funicular process. Among his reasons are: (*a*) That such congenital inguinal herniæ are known to occur, the protruded viscera actually lying in the tunica vaginalis; (*b*) that in every oblique inguinal hernia there is a well marked neck; (*c*) that many inguinal hernias of considerable size appear suddenly—*i. e.*, the sac is already there to receive them, and (*d*) that most infantile inguinal hernias, instead of being of the so-called congenital form into the tunica vaginalis as one would expect, are exactly like those occurring in adult life. If the author's view is correct, it follows that every case could be certainly cured by efficient removal of the congenital malformation. In the future radical operation will be the rule, and the truss the exception, especially in adults. In children there is no doubt but that a truss can often bring about an obliteration of the patent funicular process, and consequent cure. But after the second year a truss seldom cures.

5. Mucomembranous Colitis.—Bottentint classifies cases of mucomembranous colitis as follows: (*a*) Those with habitual constipation; (*b*) those with alternating constipation and diarrhœa, and (*c*) those with persistent diarrhœa. The first symptom noticed is the presence of slime and false membrane in the stools. The latter may be composed of long filaments, cylinders, tubes, or ribbons. The most frequent is the glairy form, often resembling sputa. The mucoid masses are composed of semitransparent mucoid material, containing leucocytes, epithelial cells, fatty granules, and large colonies of bacteria—usually colon bacilli. Pain is present in almost all cases, usually over the whole of the large intestine. It may be limited to one point, is often spontaneous, and can always be evoked by pressure. Sensations of weight, tension, throbbing, etc., are often complained of. Nearly all the patients are of a neuro-arthritis type. Hyperchlorhydria is usually present, the stomach is dilated, and there is displacement of the right kidney. Intestinal lithiasis often coincides with mucomembranous colitis. The disease occurs at all ages, the number of children affected being about seven per cent. Constipation doubtless plays a part, the hardened matters irritating the mucous membrane, but self intoxication from faulty digestion is probably the most important factor in the causation of the disease. All arthritic persons are subject to catarrhal affections of the mucous membranes. The diagnosis rests upon the discovery of false membranes in the fæces. It is difficult only when there are paroxysmal crises suggesting biliary or renal colic. The condition is rarely fatal, but is of long duration and difficult to cure. It produces cachexia and grave neurasthenia. The diet should be the same as that given in dilatation of the stomach, care being taken to avoid all articles leaving a residue. Where there is constipation mild laxatives should be used; in the diarrhœal cases salicylate of bismuth acts well. Intestinal douches, carefully given, are also of great benefit.

7. Plague from Fleas.—Tidswell states that there is a conflict of opinion as to whether the fleas of plague infected rats will bite man. To settle the

question, during the recent epidemic of plague in Australia, he examined 100 fleas from rats; 10 were identified as *Pulex asciatus*, 8 as *Typhlopsylla musculi*, 1 as *Pulex serraticeps*, and 81 as *Pulex pallidus*. All of these, except *Typhlopsylla musculi* were found to attack man.

8. Potassium Permanganate in Lupus.—Hall-Edwards calls attention to the good effects produced in lupus by potassium permanganate, not only as an adjunct to x ray treatment, but in clearing up patches left after the use of the rays. In non-ulcerated cases he washes the patch with carbolic soap, dries it with a solution of methylated spirit, and then applies a saturated solution of potassium permanganate with a brush. Crusts should not be removed, but simply saturated with the solution. The applications are repeated every day, or every other day. The treatment has no effect upon indurated, shiny, slow-growing, non-ulcerative patches.

BERLINER KLINISCHE WOCHENSCHRIFT,

JUNE 1, 1903

1. Spinal Paralysis Caused by a Chondrosarcoma of the Sixth Dorsal Vertebra, By J. ISRAEL.
2. Concerning the Löwit Bodies in the Lymphocyte Nuclei and in Connection with Myctæmia, By P. RECKZCH.
3. On the Treatment of Chronic Catarrh of the Colon, By J. BOAS.
4. Has the Glycogen Reaction of Leucocytes a Bearing Upon the Theory of Metschnikoff? By S. KAMINER.
5. The Diagnosis of the Diseases and the Functional Capacity of the Kidneys, By H. SENATOR.

1. Spinal Paralysis from Pressure of Chondrosarcoma.—Spinal paralysis resulting from the pressure of tumors has seldom received surgical treatment. There have been 34 operations placed upon record, of which 14 have been fatal. The author's case was peculiar in that the tumor started from the body of a vertebra, and called for a partial resection of the vertebra. The patient was a woman, thirty-nine years of age, and had borne nine children. When seen in July, 1902, she had suffered for a year and a half with pain in the upper portion of the right abdominal wall, which sometimes extended into the thorax as high as the angle of the scapula. There was weakness in the right leg, so that it was no longer a means of support. Subsequently the left leg also became weak. There was paræsthesia, and a feeling as if cold water were being poured over the legs. Three months after the appearance of the motor disturbance there was paralysis of both legs and difficult urination. There was also paralysis of the muscles of the body, and the patient could neither get up nor sit without support. There was paralysis of sensation below the costal cartilages. The patellar reflex was accentuated, and there was ankle clonus and the Babinski sign. The abdominal reflex was absent on the right side and partially so on the left. There was no degenerative atrophy of the muscles, no change in the appearance of the vertebræ, and no pain on pressure or percussion. There was enlargement of the right kidney. In the urine a few hyaline casts and a few leucocytes were found. It was necessary to determine whether there was primary disease of the medulla or extramedullary disease proceeding from the vertebræ or the membranes of the cord. The symptoms indicated an extrame-

dullary disease upon the right side producing pressure upon the cord. The exact location of the disease whether in the vertebræ, the spinal membranes or the circumdural tissue, could not be determined. Syphilis, tuberculosis and spondylitis were excluded. The possibility of extensive, possibly malignant, disease of the right kidney was recognized. The operation was performed on August 11, 1902. The spinal cord was found unchanged; the tumor extended from the lower to the upper border of the right half of the sixth dorsal vertebra, and was an elastic mass three centimetres long, completely covering the cord. It was removed with the sharp curette, the diseased bone being also scraped away. The pleura was accidentally opened and the dura of the cord was also torn. The rent in the dura was closed and iodoform gauze was packed in the wound and also in the opening into the pleural cavity. The wound healed by first intention, the pleural tampon being removed on the eighth day. Motion and sensation returned in a few days, and on the nineteenth day the toes of both feet could be moved. On the thirtieth day both lower extremities could be extended, and their sensibility was restored. By degrees the patient acquired nearly normal condition of her various functions, complete restoration being as yet deferred. The possibility of recurrence of the disease must be taken into consideration, especially since the bony tissue from which it was taken was not as extensively removed as might have been desirable.

3. Treatment of Chronic Catarrhal Colitis.—

The author's paper is a criticism on the paper of Von Aldor who proposes to treat chronic colitis with high enemata of Sprudel water. He first washes out the bowel with a cleansing enema, then introduces a stomach tube 85 centimetres long into the bowel and injects a litre of the Sprudel water at a temperature of 45° to 50° C. After a few days the quantity of water may be increased to 2, or even to 3 litres. After the injection, heat is applied to the abdomen for three-quarters of an hour, and the time is gradually increased to two or three hours. After this treatment has been applied 15 or 20 times the catarrhal inflammation is usually cured, and with it the constipation or the chronic diarrhoea which mark the disease.

The author takes pains to show that according to the best authorities the introduction of a sound into the bowel for a great length is impossible; it cannot pass the promontory of the sacrum. He also questions the propriety of introducing such large quantities of fluid into the bowel, and believes that if one could really inject it, it would signify either intestinal atony or intestinal dilatation. He also thinks the question of diet in such cases is of the greatest importance, and that Von Aldor has apparently overlooked that portion of his subject. He believes that in the treatment of this disease two conditions would conduce to success—moderation and experience.

5. Diagnosis of Kidney Diseases.—Having referred in a previous paper to other features of the diagnosis the author now refers to the microscopical examination of the sediment of the urine. The idea is incorrect that nephritis cannot be present unless there are cylinders in the urine. The cylinders are the product of a disturbed activity in the epithelial

canals, and not coagulated albumin from the glomeruli. The functional disturbance or the disease of the epithelium may be very slight. In acute kidney affections in general, apart from suppuration and abscess formation, the epithelium is extensively diseased, while the more chronic the disease, the less extensively the epithelium is involved, the connective tissue changes playing the more prominent part. It therefore frequently happens that in chronic interstitial nephritis few cylinders are to be found. On the other hand, it may happen that cylinders are present in the urine without albumin. It is also necessary to decide whether with an inflammation of the urinary passages, a pyelitis, or a cystitis, there is any disease in the kidney tissue itself. This is called albuminuria spuria. One is often called on to decide between albuminuria spuria and vera from the relation between the volume of albumin and the number of leucocytes in the sediment.

In the ordinary forms of disease known as Bright's disease, the leucocytes are usually cells with a single nucleus; while in pyelitis, cystitis and urethritis, the cells are usually multinuclear. Cylinders in urinary sediment differ from cylindroids, in that the latter are band-like in appearance, striped, and very long. They occur frequently with pyelitis and with the desquamative forms of nephritis.

When there is blood in the urine it is often difficult to decide whether it comes from the kidneys or the urinary passages. In renal hæmorrhage, unless it is very profuse, the blood corpuscles are more or less disintegrated, while in hæmorrhage from the urinary passages they are in a more normal condition and more or less decolorized. The cylinders, also, which in the latter condition are studded with blood corpuscles, are of a brownish yellow hue and more or less decolorized.

When there is polycystic degeneration of the kidneys an important factor for diagnosis, in the urine, consists in certain rosette-like red bodies which resemble leucine. The presence of parasites and their eggs in the urine, as well as the presence of tumor tissue, is of great significance. The bacteriological examination of the urine after it has been submitted to the centrifuge is of especial importance.

Important, too, are the tests made with substances known to be absorbed with difficulty and excreted without molecular change. Among these substances are iodine, salicylic acid, methylene blue and rosaniline. When the kidneys are diseased these substances are excreted more slowly and in smaller quantities than in health. It is better, in testing with these substances, notably with methylene blue, to inject them subcutaneously. The author does not value these tests so highly as do many writers. A recently described method of examination is that of Bouchard, to determine the extent to which the urine is poisonous; in other words, to obtain the urotoxic coefficient. Bouchard found that normal urine became poisonous in fifty-two hours. Taking a kilogramme of such urine and injecting it into the veins of puppies, he was able to determine the condition and resisting power of the kidneys. The author thinks the method not altogether trustworthy. Testing the molecular concentration of the urine has been recently advocated as a diagnostic method. It has to do with the freezing point of the given urine, for the more concentrated it is, the lower will be the freezing

point. This method cannot be exact, for it almost never happens that an entire kidney is diseased, and one of the organs may be entirely sound, the other being more or less diseased.

The use of the ureteral catheter and the urine segregator is referred to, and the objection offered that the one is too difficult for use, except by exclusive specialists, while the other is unreliable. If, however, the catheter is used, it is possible to determine the functional power of each kidney by employing a diuretic, by testing the molecular concentration, and by the phloridzin test.

Under normal conditions the quantity of urine passed by each kidney is about the same. When dropsy is a symptom to be analyzed in making a diagnosis, it is usually accompanied with great pallor of the skin if due to kidney disease.

Retinitis albuminurica, persistent migraine, itching of the skin, numbness of the fingers, peculiar odor of the breath, cardiac hypertrophy with or without valvular lesions, and arteriosclerosis are all important diagnostic symptoms. The testing of the molecular concentration of the blood, either from the serum or from dropsical effusions, furnishes the most recent diagnostic test. The freezing point of normal blood is usually 0.56° C.; should it sink to 0.60° C. or lower it would point to probable disease of the kidneys. The author believes that this sign is of the greatest importance, and especially in cases in which there is a question of surgical intervention.

MUENCHENER MEDIZINISCHE WOCHENSCHRIFT.

June 16, 1903.

1. Apparatus for Controlling the Pulse in Anæsthesia.
By G. GAERTNER.
2. Riva-Rocci's Sphygmomanometer and Gærtner's Tonometer,
By ALFRED MARTIN.
3. Treatment of Face Presentations,
By ANSELM.
4. Babinski's Toe Phenomenon, By ALEXANDER RICHTER.
5. Ether Anæsthesia,
By C. LONGARD.
6. Severe Scarlet Fever Epidemic,
By GUNTHER.
7. Acute Intestinal Obstruction Due to Lumbricoids,
By M. SCHULHOF.

3. **Treatment of Face Presentation.**—Anselm reports seventy-three cases of face presentation seen in the Basel clinic, which were treated expectantly. Eleven and four-tenths per cent. of the children died; there was one severe and seven mild cases of asphyxia, and no deaths of children took place within the next twenty-four hours from the effects of the severe intrapartum stretching of the neck. Anselm emphasizes the importance in these cases of being patient and of permitting the birth to take place by natural forces rather than by operative means, the latter giving a higher mortality.

4. **Babinski's Toe Phenomenon.**—Richter reviews his cases and the literature. He concludes that this phenomenon, even though it is found in 1.8 per cent. of all healthy persons, has a high diagnostic value, although not an absolute one. The appearance of a reflex in extension speaks strongly for a change in the function of the pyramidal tracts.

5. **Ether Anaesthesia.**—Longard concludes, from 2,700 anæsthesias, that ether is the safest

and best anæsthetic, while the annoying features following its use are due to carbonic acid intoxication of the organism. Plenty of air must therefore be allowed the patient receiving ether. Longard has devised a mask which permits free access of air, and he predicts that in time ether will supplant all other anæsthetics.

7. **Intestinal Obstruction and Ascaris Lumbricoides.**—Schulhof reports the case of a woman, forty-seven years of age, who was operated on for acute intestinal obstruction. When the abdomen was opened, no occlusion of the gut was found, but while the patient was recovering from the anæsthesia she vomited several ascarides. Later, flatus and fæces passed normally. It is likely that the worms began to move from the gut in consequence of the pressure upon the intestine exerted during the operation.

ZENTRALBLATT FÜR GYNAEKOLOGIE.

June 20, 1903.

1. Hyperemesis Gravidarum and Hysteria,
By B. FEINBERG.
2. New Operation for Retroflexion,
By S. A. ALEXANDROFF.

1. **Hyperemesis Gravidarum and Hysteria.**—Feinberg records two cases in which serious hyperemesis produced abortion in one case and was the cause for its artificial production in the other. In neither case could the slightest ground be found for calling the patient hysterical. He does not believe that the frequently stated cause of hyperemesis or of emesis of pregnancy as being hysteria is correct. Reviewing the literature, he finds that various authors have attributed excessive vomiting during the pregnant state to hysteria because (1) diseases of the stomach, intestines, kidneys, sexual organs, as well as some forms of intoxication, cause vomiting when there is no pregnancy; (2) because even in fatal cases, no marked lesions of any organs are found; (3) because the course of hyperemesis is uncertain and bizarre; (4) because psychic and somatic influences may suddenly suppress hyperemesis. The author takes up and combats vigorously the fallacies involved in each of these statements.

2. **New Operation for Retroflexion.**—Alexandroff describes an operation based on the belief that the cervical ligaments (Mackenrodt) and cardinal ligaments contained in the broad ligament, are responsible for the backward displacement. The broad ligament on either side is exposed by section of the anterior vaginal wall, the bladder being pushed up as high as possible. Provisional ligatures are passed through the base of each broad ligament, the uterus is reduced as far as possible into a position of anteversion, the provisional ligaments are then crossed and firmly tied across the anterior surface of the cervix. The adjoining surfaces of the bases of the broad ligaments are then still further united by buried sutures, which also pass through the cervical tissue. Alexandroff asserts that in every case the uterine deformity has been corrected, and that the uterus has remained movable. The lateral fornices were always wedge-shaped. No complica-

tions on the part of the bladder were noted and no disturbances of circulation in the uterus were observed, while menstruation remained normal.

PRESSE MEDICALE.

June 17, 1903.

1. Appendicitis and Cholecystitis, By G. DIEULAFOY.
2. Exophthalmic Goitre and Mucomembranous Enterocolitis, By FELIX BERNARD.
3. A Double Medical Syringe, By M. SCHACHMANN.

1. **Appendicitis and Cholecystitis.**—Dieulafoy says that the acute and chronic lesions of appendicitis may associate themselves, under the most varied pictures of appendicitis, with cholecystitis. There may be mucopurulent or hæmorrhagic free fluid, ulcerations of the appendicular wall, stenosis, perforation, gangrene, adhesions, pericæcal suppuration, peritonitis, etc. The inflammation of the gall-bladder may be of calculous or non-calculous origin, the bladder being filled and distended, retracted, adherent, and containing a variable quantity and quality of fluid. The infection probably originates always in the appendix, traveling upward and then invading the gall-bladder. The treatment is surgical, both appendix and bladder being subjected to the measures indicated in each case.

Exophthalmic Goitre and Mucomembranous Enterocolitis.—Bernard, having observed a concomitance of these conditions, says that the latter ailment is never a morbid entity. It is merely a syndrome, and shows some functional disturbance of the abdominal sympathetic system, which may arise from a central cause, such as neuroses, neurasthenia, and various nervous diseases, or from a local cause—any intraabdominal lesion.

LYON MEDICAL.

June 14 and 21, 1903.

1. Two Observations of the Pericardial Friction Sound, Heard Over Nearly the Entire Thoracic Region; Autopsies, By V. CHAPPEL AND G. LECLERC.
2. Exceptional Form of Vesical Lithiasis; Incrustation of the Mucous Membrane with Uric Acid, By RAFIN.
3. Centrifugation as a Rapid Method of Estimating the Nutritive Value of Milk, By FABRE.
4. Accidents Caused by Electric Currents of High Voltage and their Treatment, By Bois.

1. **The Pericardial Friction Sound.**—The authors cite two cases in which the friction sound was of unusual intensity. The first was in a man, aged forty-seven years, with a history of tuberculous glands, white swelling of the tibiotarsal joint, phlebitis of right leg, followed by chronic œdema and erysipelas, slight signs of Bright's disease, polyuria, fatigue, œdema of legs after exertion, and swelling of back of right hand. The present attack began one month previously at night, with pseudoasthma, palpitation, and præcordial pain. Several similar attacks since and constant dyspnœa, relieved by the sitting posture; at present heavy œdema of legs with anasarca, frequent cramps, tongue dry, vomiting and constipation, slight meiosis. Physical signs present, slight præcordial swelling, apex impulse weak,

apex in fifth interspace inside mammary line; double friction on palpation, increased by pressure; auscultation discloses double friction sound of great intensity, a sound like the rubbing of new leather, heard over the entire præcordial region, and increased by pressure of the stethoscope; crepitant râles in both apices. The liver extended beyond the floating ribs by three fingerbreadths. Seven hundred grammes of pale urine, loaded with albumin in the twenty-four hours; temperature normal; expectoration mucous and bloody, involuntary muscular contractions. He died on the day following admission. The autopsy showed adhesion of the pericardium to the whole of the left pleura; the sac contained a little lemon colored fluid and was covered with minute vegetations; the left heart was greatly hypertrophied; no valvular lesions. The left pleura was filled with liquid and there was atelectasis of the left base; the left apex was solid with grey hepatization; a similar condition of the right inferior lobe. The kidneys were cirrhotic and the liver enlarged. The second case was that of a man aged twenty-one; negative family and personal histories. He had been suffering two months, when admitted (November 20), from a "cold," which had left a slight hæmoptysis and a cough; there were signs, too, of Bright's disease, as in the other case, polyuria, fog before the eyes, and cramps in the fingers and calves. On entering hospital, face was pale and slightly swollen, the arteries hard, cough, mucous expectoration, dyspnœa, headache, numbness, vomiting; no œdema. There was double bronchitis; apex in fifth interspace outside mammary line; sounds regular; great atheroma and hypertension; urine, 1,700 to 2,000 grammes in the twenty-four hours, much albumin, epithelial and hyaline casts. Condition grew steadily worse; on February 3, 1,500 grammes of a yellowish liquid were aspirated; on February 20, 600 grammes. By April 3, there was very marked cachexia and night delirium; death occurred on the 11th. The autopsy showed much the same appearances as in the first case, save that there was no hepatization of the lungs, and the whole heart was much hypertrophied. The authors draw attention to the unusual symptom of extension of the friction sound, surpassing all the other 11 cases on record, which they attribute to the density of tissue caused by the hepatization and presence of liquid, and to the powerful impulses of the enlarged hearts.

2. **Unusual Case of Vesical Lithiasis.**—Rafin's case was a woman aged twenty-one years, who had a slight hæmaturia in the third month of pregnancy, which, however, passed off. Twenty months later, there was frequent micturition, every half hour in the day time, and three times at night, blood in the urine, pain in the back. Bacteriological examination, negative; cystoscopy disclosed a red and œdematous mucous membrane with yellowish spots seemingly covered with fine crystals. On performing suprapubic cystotomy, these spots were vigorously rubbed with gauze, scraped with a curette, and finally touched with the cautery. The product of the scrapings was recognized as uric acid and ammonium urate (the latter salt may have been a secondary phenom-

enon). The patient continued well for eleven months when she began to suffer again from pain in the back, and palpation of the kidneys brought on a hæmaturia. Such incrustation of the mucous membrane of the bladder is very rare, and it is inexplicable why a stone did not form in this case in the usual way. No other treatment than the operation as performed would have been of value.

4. High Voltage Electric Currents.—A man, thirty years of age, was struck by lightning, when on a journey with three friends; one of these was killed, the other two were but slightly affected, and this subject remained groaning and unconscious on the ground. Quickly moved to the hospital, he revived partially and began caressing his left leg, as if it pained him, and flexing and extending it as if to prevent a dreaded paralysis. There was a wound as large as a half dollar at the level of the external occipital protuberance and the hair around this was burned. On the external aspect of the right thigh were two scratches that looked as if the patient might have caused them with his nails; they did not bleed. There was agonizing pain all down the left side. This was relieved by morphine and the patient went home. Two days later, Bois was called to the patient's house to find a relapse caused by the prescription of cold douches. The following treatment was then prescribed and resulted in perfect relief in one month: Hypodermic injection of morphine for the pain, hot baths of an hour's duration, rest in a dark room, and liquid diet. Another case was that of a workman who struck his pick into an electric cable; he became unconscious, and on revival had paralysis of the right arm with loss of sensation. Faradaization for several weeks cured this condition. Bois considers this second case as more serious than the first, and concludes that injuries received from electric current are not proportioned to the voltage, but that some factor not understood enters into such accidents.

REVISTA MEDICA DEL URUGUAY.

Year VI, No. 4.

1. Puncture of Serous Membranes, By A. RICALDONI.
2. Congenital Smallpox Without Maternal Smallpox, By L. MORQUIO.
3. Rare Localization of Raynaud's Disease, By J. F. CANESSA.

1. Puncture of Serous Cavities.—Ricaldoni discusses the resorption of serous exudates after exploratory puncture. After a review of the literature of the subject, he describes the resorption of ascitic fluid, after puncture, in a case of tuberculous peritonitis which came under his care. He believes that the nervous system plays no small part in the resorption of fluids, and that the stimulation of the skin and subjacent tissues by the needle, in its passage to the serosa, produces a reflex action, through the nerve centres, which finds its expression in vascular and retrogressive changes at the site of the lesion. He holds it not improbable, also, that the action of a foreign body (the needle), and the molecular disturbance of the fluid, accompanying aspiration, excite a phagocytosis analogous to that induced by revulsion and other therapeutic measures.

2. Congenital Smallpox.—Morquio reports the case of an infant who presented the characteristic lesions of smallpox at birth, though no evidence of the disease appeared in the mother, beyond fever, lumbar pain, and vomiting, from which she suffered two days during the last month of her pregnancy; the foetal movements becoming violent while these maternal symptoms were present. At this time there prevailed an extensive epidemic of smallpox. The mother's immunity is attributed, by the author, to her vaccination in childhood. The disease ran a typical course in the infant, the characteristic cicatrices being left upon the skin; and the child imparted the disease to an older sister, who succumbed to it. At the age of three months, the little patient developed hydrocephalia, which Morquio believes was directly attributable to the smallpox infection; syphilis being definitely excluded as an ætiological factor. The author cites two other cases of smallpox in infants, both of which were followed by hydrocephalia.

3. Raynaud's Disease.—Canessa describes a case of symmetrical gangrene following local asphyxia in the tips of both ears. This localization he regards as rare, from the fact that Raynaud, in his description of the condition which bears his name, makes no mention of such lesions occurring about the face; save in one instance in which small cicatrices were seen by him about the nose, though the disease itself had not been observed in this location. In the author's case, anæmia seemed to enter largely into the ætiology of the affection, as in Hochenez's, Rham's and Steiner's cases.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

May 17, 1903.

1. On the Pathology of the Pancreas as Related to Diabetes and Glycosuria, By DE DOMINICI.
2. A Contribution to the Surgery of the Parotid Gland, By FRANCESCO FABRIS.
3. Aneurysm of the Descending Thoracic Aorta, By C. CESARE.
4. A Case of Pure Aortic Stenosis, By G. DONZELLO.

1. The Pancreas in Diabetes and Glycosuria.—De Dominicis reviews *in extenso* the various theories held regarding the relation of pancreatic lesions to the occurrence of diabetes and glycosuria. He records an extensive series of experiments, which he instituted with the idea of bringing light into this difficult question. The experiments included a great variety of methods, such as extirpation, injection of various substances into the duct of Wirsung, the study of diet in relation to pancreatic functions, etc. His conclusions are as follows: Glycosuria and glycæmia occur in virtue of a disturbance in the regulating mechanism of the nervous system which controls the various processes that take part in the general metabolism. Organic processes may also give rise to glycosuria and glycæmia in the same way as they may cause fever, by acting on the metabolism in another way, but accomplishing the same result as disturbances of the nervous system. The destruction of the whole pancreas inevitably induces dystrophy of the organism in virtue of the absence

of the very important functions of this organ in digestion, and in virtue of the absence of the substances which the pancreas produces which regulate the equilibrium of metabolism acting on the cellular protoplasm either directly, or more probably through the medium of the nervous system. The partial destruction of the pancreas does not produce definite symptoms, because the uninjured portion is able to take care partly of the functions of the whole gland. When the pancreas is completely removed, there may still be formation of glucose and destruction of glucose, showing that these functions may go on independently of the pancreas, probably with the aid of some of the other organs.

2. **Chondrosarcoma of Parotid.**—Fabris reports two cases of chondrosarcoma of the parotid in which he removed the greater portion of the gland, sparing carefully the carotid, the facial nerve, etc. The first patient recovered competently, the second had a recurrence which proved fatal.

RIFORMA MEDICA

May 27, 1903.

1. The properties and Changes of Biliary Pigments in the Various Forms of Jaundice, By LUIGI FERRANNINI.
2. The Gastric Functions in Animals Deprived of the Spleen, By T. SILVESTRI.
3. On the Physiology of the Orbital Lobe, By L. FERRANNINI (*Continued*).
4. A Contribution to the Surgery of the Central Nervous System, By G. BENDANDI (*Continued*).

1. **Biliary Pigments in the Urine of Jaundice.**—Ferrannini has undertaken the study of urines in various forms of jaundice, with a view of determining the changes which go on in the biliary pigment in icteric urine. He finds that the library pigments of icteric urines exhibit many of the properties found in the pigments of normal urines by Dastre and Floresco, but that no two icteric urines are absolutely alike in regard to their contents of biliary pigments. These differences evidently depend upon the nature of the disease. He does not draw any practical conclusions, but announces that he will study this question further, in order to determine whether the behavior of bile pigments to various reagents in different types of jaundice could give clues in diagnosis and prognosis. He is confident that this will prove the case on further research.

2. **Increase of Gastric Function After Splenectomy.**—Torindo Silvestri has studied the state of gastric digestion in dogs that had been deprived of the spleen. He found that the capacity of the gastric juice for the digestion of proteids was very greatly increased in these animals. These dogs were, in fact, capable of transforming enormous quantities of proteids in their stomach in excess of their needs, and this without any subjective or objective disturbances whatever. The author believes that he has conclusively refuted the theory that the spleen furnishes an internal secretion which stimulates the production of pepsine and trypsin and thinks that the action of a congested spleen in stimulating an inactive pancreas is due to the effect of the numerous white blood cells which are contained in the splenic blood.

RASSEGNA D'OSTETRICIA E GINECOLOGIA.

June, 1903.

1. Umbilical Cord Wound Around the Body of the Fœtus, By P. L. FERRANI.
2. Report of the Guardia Ostetrica Permanente di Napoli. 1901-1902, By P. CALCAGNI AND M. POLIGNONE.
3. A Case of Tubal Gestation Terminating in Internal Abortion. Histological Studies, By V. CORDARO.
4. A Contribution to the Study of the Hepatic Function in Pregnancy, By M. VECCHI.

1. **Diagnosis of Cord Around Fœtus.**—Ferrani studies the methods of diagnosis of windings of the cord about the body of a fœtus in utero. The vessels of the umbilical cord in the fœtus are so arranged that when they are accessible to auscultation they emit a characteristic soufflé. An early diagnosis of a cord wound about the body of the fœtus is possible. Windings of the cord about the fœtal body are frequently met with and are not injurious in the majority of cases, but when the cord is seriously shortened or compressed by this accident, the life of both fœtus and mother may be threatened. The diagnosis of a compressed cord wound about the body may be made by auscultation during labor, when the membranes are ruptured. The cord gives a double soufflé, synchronous with the heart beat, but occurring over another area of the mother's abdomen. It is distinct from the uterine soufflé, which is much slower. On palpation it is also sometimes possible to feel a rhythmic fremitus corresponding in location to the bruit heard by auscultation. Finally, in vertex cases, where the cord may be around the neck, digital exploration assists in the diagnosis. For this purpose the finger should be introduced behind the symphysis, along the anterior vaginal wall, around the head, and should feel for a palpitating cord. The author reports a case in which the membranes were ruptured and a large amount of liquor amnii escaped, and in which the turn of the cord about the fœtal body gave rise to a very distinct pulsation on the surface of the mother's abdomen. These pulsations were recorded by the author in a series of tracings covering almost the entire subsequent progress of the labor.

3. **Tubal Pregnancy.**—Vecchi reports a case of tubal gestation in which an operation, performed on account of the symptoms of impending abortion, revealed a macerated fœtus of two months' development in the tube, within a cystic cavity filled with bloody fluid.

ROUSSKY VRATCH,

May 17, 1903.

1. On the Veins of the Pancreas, By V. N. TONKOFF.
2. On Rupture of the Abdominal Scar After Laparotomies, By V. N. ORLOFF.
3. On Paratyphus, By V. I. BIELIAEFF (*To be concluded*).
4. On the Treatment of Lateral Curvatures of the Lower Extremities (Genu Valgum and Genu Varum), By Wollff's Method (*To be concluded*).
5. The Parasitology and Clinical Features of Mixed Forms of Malaria, By S. A. MARK.
6. On the Question of the Origin of the Normal Rhythm of Breathing, By S. I. KOSTINE.

cess in protecting cows by previous inoculations of living human sputum cultures.

In looking back over all the patient and tedious work which has been done in trying to immunize against tuberculosis, we find that the attempts to protect animals by the production of a purely toxic immunity along the lines which have been so successful in diphtheria, attempts which were inaugurated by Koch in his work on tuberculin, have generally proved somewhat unsatisfactory, even where dead and pulverized bacilli are used, as in his T. R. tuberculin. On the other hand, success in protecting animals to a greater or less degree has pretty generally resulted when the protective inoculation has been made with living but attenuated cultures. The work already done would tend to establish the principle that, in order to be successful, the protective inoculation must be made with a living germ of such diminished virulence for the animal experimented upon as to produce a reaction ending in the victory of the living tissues over the bacilli, and a complete aborting and healing of the process at first set up by them. This is termed by Behring isopathic immunity.

The attenuation of the cultures used for protective inoculations may be obtained in two ways: either by selecting a variety of the tubercle bacillus, whether bovine, avian, or human, naturally of little virulence for the race to which the animal to be protected belongs; or by previous inoculation with a variety naturally virulent for the kind of animal selected for protection, but attenuated by prolonged cultivation. Thus the cow can be protected against tubercle bacilli of bovine origin by previous inoculation with cultures of human origin, and the guinea pig and rabbit to a greater or less extent against a virulent infection by tubercle bacilli of human origin by previous inoculations of attenuated cultures of human origin. The fact that one variety of tubercle bacillus can produce immunity against another is strong evidence in favor of the genetic unity of all tuberculous virus.

My own work, unfortunately, has been confined almost entirely to experiments on rabbits and guinea pigs. These little animals, as Behring has pointed out, on account of their delicate organization, their intense susceptibility to the disease and to extraneous influences which make variations in weight and temperature in them misleading and unreliable, are eminently unsatisfactory for use in the study of artificial immunization to tuberculosis; and yet they can be immunized, if it is clearly understood that by this I mean that in them a greatly increased resistance to virulent inoculation fatal to controls can be successfully demonstrated.

I will describe as briefly as possible the main features relating to the best method which I have so far been able to devise for demonstrating with these small animals this artificially induced resistance. In some of my first experiments, in 1892, I used an avian culture subcutaneously to immunize rabbits; but this proved unsatisfactory, as the animals often died of the preventive inoculation and the germ was evidently too virulent. Later, I used altogether a human culture which had become attenuated by prolonged cultivation.

All other methods of attenuation hitherto employed—heat, time, antiseptics, etc.—aim a blow at the viability of the germs sought to be attenuated, but do not alter their biological characteristics. They are either killed, in which case they produce no disease, or else they survive sufficiently to grow in the body, and ultimately destroy the life of the animal. Prolonged cultivation, on the other hand, gives us a culture which grows vigorously outside the body, but which has lost to a great extent its specific pathogenic powers.

The source of the culture used in my experiments, which I shall refer to as R 1 culture, is as follows: Cultivated on potato, in 1891, by myself, direct from a case of miliary tuberculosis in man, passed through a rabbit, and grown now for nearly eleven years on artificial media, principally glycerin-peptone-bouillon, this culture grows more rapidly than formerly, without presenting any marked change in appearance either in culture or microscopically. It produces in liquid media apparently as much and as efficient tuberculin now as it did ten years ago. After two years it began to show some diminution of virulence for guinea pigs and rabbits, and after six years, in ordinary doses, it did not kill rabbits, and produced only very chronic lesions in guinea pigs or did not kill them at all. Since then its virulence has still more diminished. This is the same culture which I now show you that is used by De Schweinitz in protecting his guinea pigs.

The first evidence of protection which I was able to obtain from preventive inoculation with the germ was as follows: In thirty-six controls the average life after virulent inoculation was fifty-seven and two-tenths days, and in the sixty-six vaccinated animals one hundred and fifty-four and three-tenths days, so that the vaccinated animals lived nearly three times as long as the controls. This includes, however, experiments made before the bacilli were sufficiently attenuated to prove harmless, and very much better results can be obtained by preventive inoculation with this culture at present.

Young animals, as Behring has pointed out, are most suitable for these experiments, as they

bear the preventive inoculations much better than full grown or old ones. The dose of the attenuated germ injected, and the method of immunization adopted, are of the utmost importance to success. If too little of the culture is given, protection does not ensue; if too much, the nutrition of the animal suffers and it is likely to die ultimately cachectic and with chronic visceral lesions, especially in the kidneys. A first inoculation of a very small dose of bacilli, followed in two months or more by a second ten fold larger, has seemed to produce the best results. The culture should be weighed accurately after drying on blotting paper, and crushed so that it may be as finely subdivided as possible, as the emulsion should contain no lumps of culture.

Contact with the blood stream seems necessary to success. Subcutaneous inoculation alone is not likely to afford much protection, although in guinea pigs one subcutaneous inoculation, followed in two months or so by an intraperitoneal one, is quite efficient. For rabbits it is best to inject in the ear vein.

For a half grown guinea pig, the initial dose should be one-eighth of a milligramme to one-quarter of a milligramme of solid culture, suspended in one-half to one c.c. of water injected under the subcutaneous tissue of the thigh. Little reaction follows, locally or constitutionally. The animal loses some weight for a few weeks, and the inguinal glands may swell somewhat and remain slightly swollen for several weeks. If tested with ten milligrammes of tuberculin two or three months later, the animals should show no reaction. An intraperitoneal injection of one-quarter to one milligramme may then be given, and is usually well borne. Six weeks later the test inoculation should be made. This should consist of a very small amount of virulent bacilli; enough, of course, to cause tuberculosis and death in the controls, but no more. In immunizing rabbits half-grown animals should be selected, and one-eighth to one-quarter milligramme by weight of attenuated culture, finely divided, and suspended in one c.c. of water, is injected in the ear vein. Two or three months later the animals should not react to thirty milligrammes of Koch's tuberculin, and if up to their normal weight, may then be given the test inoculation of a half milligramme of virulent bacilli in the ear vein. It is better, however, to give two preventive inoculations two or three months apart. The initial dose should be one-twentieth to one-fortieth of a milligramme intravenously, and the second ten times greater.

No doubt these methods of preventive inocula-

tion may be varied so as to make the immunity acquired more complete and lasting. I merely describe the plan I have adopted in attempts at demonstrating the relative immunity, a plan which has given me the best results so far in these small animals. Calves are much better for these studies, as the brilliant results obtained by Behring and others demonstrate.

Behring seems to have produced in calves an immunity which is so perfect that the tissues fail to react to the virulent inoculation by the formation of tubercle, and no trace of it is left on the lungs of his protected calves. In my experience with small animals the degree of immunity I have succeeded in obtaining does not prevent the local reaction of the tissues to the virulent inoculation. The eyes of my animals showed at first violent reaction, and the lungs of immunized rabbits three or four weeks after the virulent inoculation show lesions which appear even more pronounced than those produced in the controls. In the protected animals, however, the process, both in the eyes and lungs, gradually becomes retrogressive and heals slowly without any tendency to spread. In other words, in them there is a reaction, but one which is purely localized; while in the unprotected rabbits the disease steadily progresses and becomes generalized until it destroys the animal's life.

If it is evident, therefore, on one hand, that the immunity I have succeeded in producing in rabbits and guinea pigs, though perfectly demonstrable, is only relative, it must be admitted, on the other, that the flooding of these rabbits' lungs with a large dose of highly virulent bacilli is an unnecessarily trying test, and in no way comparable to exposure to natural sources of infection.

Dr. Baldwin has made, this winter, some as yet unpublished experiments, using Wilde's hæmolytic method, on a set of calves he has immunized with attenuated human tubercle bacillus, with the object of studying the changes which occur in the serum as a result of the immunization. He finds definite proof of the presence of a specific immune body, or amboceptor, which appears in the serum of immunized animals and gradually again disappears. Traces of it were still demonstrable at least three months after the last protective inoculation.

I describe a typical guinea pig experiment briefly: On June 10, 1902, the animals to be protected received in the left thigh an injection of one-quarter of a milligramme of attenuated T.B., R 1 culture. Slight loss of weight followed, and on September 26th they failed to react to ten milli-

grammes of tuberculin. They then received one milligramme of living attenuated tubercle bacilli in the peritoneal cavity, which produced little appreciable disturbance of health. On January 7, 1903, they, together with five controls, received an injection of one-half of a milligramme of highly virulent tubercle bacilli culture subcutaneously in the right thigh. The controls all died, with an average life of fifty-five days. The vaccinated animals survived, and now, one hundred and fifteen days after virulent inoculation, are in good condition. Some show at present no trace whatever of virulent inoculation, though some undoubtedly have chronic tuberculosis, as they have enlarged inguinal nodes. I have known such animals to live over a year.

These specimens illustrate some points in the intravenous inoculation of rabbits. The first bottle, A, contains the lungs of rabbits about eighty days after intravenous inoculation with one-half milligramme of attenuated R 1 tubercle bacillus culture. As you note, the lungs show no lesions, and a pathological report of these specimens, for which I am indebted to the courtesy of Dr. Eugene Hodenpyl, states that the appearances under the microscope are essentially those of healthy lungs.

This bottle, C, contains the lungs of some rabbits belonging to the same lot, immunized at the same time, but killed twenty-two days after the inoculation of one milligramme and a half by weight of highly virulent moist tubercle bacilli culture.

In this jar, B, are the lungs of controls inoculated at the same time with the same amount of virulent tubercle bacilli culture and killed on the same day as the protected animals. You will notice that, in the lungs, as is the case in the eye, the virulent inoculation produces in the tissues of protected animals at first even a more marked reaction than in the controls, so much so as to give the impression that the protected are more susceptible than the controls, but the immunity is shown by the fact that the lesions so rapidly produced tend in the protected animals to remain localized and to retrograde and become absorbed. All the controls but one—a large Belgian hare—are dead, while all the protected animals which were not killed, survived and are still living, one hundred and twenty days after the virulent inoculation. The average life for the five controls which died was twenty-nine days after the virulent inoculation.

Dr. Hodenpyl reports the difference between controls, specimen B, and protected, specimen C, as follows:

"B is a lung thickly studded with typical and cellular miliary tubercles containing tubercle bacilli, and doubtless having gained entrance into the lung through the veins.

"C is a lung largely solidified from the presence of very many masses of exudate of tuberculous origin, without definite arrangement with regard to veins or bronchi. This type of lesion more closely resembles that commonly seen in children and in some forms of acute phthisis.

"In neither B nor C is there any attempt at the formation of fibrous tissue about the tuberculous masses."

The bottles labeled D contain the lungs of three of the same lot of protected rabbits as bottle C, but killed one hundred and ten to one hundred and fourteen days after the virulent inoculation. If you compare specimen D with C, you will see at a glance how rapidly the absorption of formidable lesions present in C must have gone on. It is hard to believe that these lungs, in two of which only a few tubercles appear, especially along the free edges of the lung, were once riddled with the same extensive lesions as those of specimen C. It is evident, therefore, that the violent reaction of the tissues to the virulent inoculation in protected animals tends to end in an aborting of the progressive tuberculous process, in the partial absorption of the morbid products, in destruction of the bacilli, and in a more or less complete return to normal as far as this is possible. The rabbits, when killed, were in excellent condition, above their normal weight, while the average life of the controls, with one exception, as I told you, was twenty-nine days only. In many of them a few tuberculous masses were noted on the cortex of the kidney.

Dr. Hodenpyl's report of specimens D 1 and D 2 is as follows:

Rabbit's lung D 1 sections show a moderate number of, for the most part tiny, nodules composed chiefly of large polyhedral cells and occasionally with cheesy centres. Each nodule or tubercle is enveloped by a distinct and well marked zone of small spheroidal, uninucleated cells similar in appearance to the encapsulating connective tissue commonly seen in the more chronic types of tubercle. A moderate number of tubercle bacilli were found in many of the nodules.

D 2 section of the lung presents much the same appearance as in D 1, except that the tubercles were less numerous and even smaller in size. Tubercle bacilli could not be demonstrated in these tubercles.

It is reasonable to hope, now that this principle of immunization seems to have been fairly well established, that a more thorough knowledge of the mechanism of this immunity and more extended studies may result in improved methods of protection, which will reduce to a minimum the dangers of the protective treatment and produce, it may be, a more durable immunization. Behring,

in his last work, demonstrated the absolute protection of vaccinated calves, which all remained well when exposed for months to infected surroundings, while control animals all contracted the disease. If a safe method of immunization against tuberculosis could be applied as successfully to children as Behring and others have proved to be possible for calves, the greatest problem before the medical profession to-day would have been solved.

What the dangers of the immunizing process are; what is the duration of the immunity produced; whether or not a living but attenuated germ is an essential to the protective process; whether the immunity it produces may be strengthened or not by additional inoculations of any of the toxins of the tubercle bacillus or of the serum of already immunized animals; whether or not the young can be protected by the milk of immunized cows, as recently suggested by Behring; whether or not the serum of protected animals can produce immunity of shorter or longer duration, and influence favorably the course of the disease in tuberculous men and animals; all these are questions which have been opened by the demonstration of the possibility of producing artificial immunity in tuberculosis, questions of intense interest which future research must answer.

My acknowledgments are due to Dr. Hugh M. Kinghorn and Dr. E. R. Baldwin for valuable assistance in carrying out these experiments, which were made possible through the generosity of Mrs. A. A. Anderson to the work of the Saranac Laboratory.

References.

- (1) *Medical Record*, November 22, 1890.
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- (3) *Annales de l'Institut Pasteur*, 1890.
- (4) *New York Medical Journal*, July 23, 1893.
- (5) *Medical News*, December 8, 1894.
- (6) *British Medical Journal*, December 20, 1897.
- (7) *Journal of Comparative Pathology and Physiology*, June, 1901, and March, 1902.
- (8) *Beiträge zur experimentellen Therapie—Tuberculose*, Marburgh, 1902.
Berliner klinische Wochenschrift, March 16, 1903.
- (9) *Philadelphia Medical Journal*, November 29, 1902.

Improvement in Medical Instruction Demanded.—The Ohio State board of medical examiners are not satisfied with the quality of instruction furnished at some of the Ohio medical schools, and met recently representatives of various colleges, to point out where the curriculum might be improved.

A STATISTICAL REPORT OF GASTROTOMIES FOR REMOVAL OF FOREIGN BODIES FROM THE STOMACH.*

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In 1886, Credé (1) published the report of twenty-six cases of gastrotomy performed for foreign bodies in the stomach. The same year Maurice Richardson (2) published a list of thirty-two cases; Fricker (3), in 1897, tabulated twenty-seven cases. He mentioned J. Neal as the operator in one case; this case had been previously reported by Credé, using J. Bell's name as the operator. He also includes five cases mentioned by Richardson, leaving twenty-two new cases, making fifty-four in all.

In 1898, Meisenbach (4) reviewed the entire subject, adding five cases, including one of his own.

Hecht (5), in 1898, added three new cases, making the total sixty-two. Kränzle (6), in his excellent work on foreign bodies in the stomach, reports three cases operated on by Bruns, and adds a number, making the total, 76 cases.

We have been able to collect eleven cases from recent literature, and have added three additional cases which were obtained by personal communications, bringing the total number to ninety cases of gastrotomy for the removal of foreign bodies in the stomach.

In the ninety cases collected, one foreign body was found in sixty-eight instances, more than one foreign body in the remaining twenty-two. The majority of foreign bodies found were metallic and had usually been swallowed in fits of insanity; others were swallowed as a means of obtaining a livelihood. The foreign bodies varied greatly, nails in large numbers, safety pins, hat pins, pieces of broken wire, lead pieces, broken sword blades, button hooks, forks, knives, false teeth, and hair masses. In three cases the stomach tube was broken off and had to be removed by gastrotomy.

In one case a Murphy's button remained after gastroenterostomy and had to be removed by subsequent operation.

In another case in which a mass of cow's hair was removed, the patient had been in the habit of wetting her fingers on her lips while milking, and in

* Read at the Annual Meeting of the Medical and Chirurgical Faculty, April 25, 1903.

this way had swallowed the hair.

The age at which foreign bodies were swallowed ranges from nine months to seventy years; males and females are about equally divided.

	Males.	Females.
Under 1 year.....		1
1 to 10 years.....		3
10 to 20 years.....	7	7
20 to 30 years.....	15	15
30 to 40 years.....	14	6
40 to 60 years.....	5	3
60 to 80 years.....	1	1

The length of time during which foreign bodies remained in the stomach ranges from a few hours to many years. Kortman (7) reports a case in which two shellac stones, weighing 670 grammes, were in the stomach for sixteen years.

Kränzle (8) reports a case of F. Bruns's, in which a number of foreign bodies were in the stomach for three years.

Labbe (9) and Fidele (10) report cases in which metal forks remained in the stomach for two years and two years and a half respectively. In the ninety cases reported adhesions occurred in thirteen cases. In six cases abscess formation occurred, point to the front of the abdomen. In three cases perforation occurred with fatal results.

Symptoms.—The symptoms caused by foreign bodies are not distinctive and in no wise differ from symptoms of other disease of the stomach. They are pain, vomiting, loss of appetite, weakness and emaciation, but the size and number of the foreign bodies may have but slight effect in the production of symptoms, as is shown in the case reported by Kortman (11), in which the foreign bodies remained in the stomach for sixteen years.

Kränzle (12) remarks that "the condition of patients shortly before operation is in no wise proportionate to the severity of the changes which were found in the stomach, which shows plainly how little one can depend upon the stomach symptoms in these cases in forming a picture of how far the stomach has become actually diseased."

The pain is usually in the epigastrium or in the intercostal spaces between the shoulder blades, and occasionally little or no inconvenience is felt.

P. Cathelin (13), commenting on hair tumors, says "symptoms are few and the local signs resemble frequently renal, splenic, or omental tumors."

Diagnosis.—Formerly a diagnosis was often made with difficulty, because in a number of cases the patients were demented; in others the diagnosis had been made with ease, especially when a definite history of the swallowing of the object was obtained and also the presence of a tumor detected on palpation. But now, with better methods and the

use of the x ray, the diagnosis is made with comparative ease. Frequently, however, difficulty is encountered in locating the foreign body, as in cases of Kränzle. The patient had a dilatation of the stomach and the skiagraph showed the foreign body about the level of the crest of the ilium, appearing as if it were located in the intestines, when in reality it was found in the stomach.

Prognosis.—Since antiseptic and aseptic surgery have been practised the prognosis is very good. However, in cases in which a foreign body remains in the stomach for a great length of time, and such changes as atrophy of the mucous membrane and thinning of the muscular wall almost to perforation with peritonitis and polypoid growths occur, the prognosis should be guarded.

Operation should be insisted on immediately after the foreign body has been swallowed, for the changes enumerated so frequently weaken and debilitate the patient as to make the operation serious. During preantiseptic times 19 cases were operated on, with 15 recoveries and 4 deaths; 78.9 per cent. recoveries.

(1) In early operations (at least ten days after the foreign body has been swallowed) there were 4 cases with 3 recoveries and 1 death.

(2) In late operations, 10 cases; 9 recoveries and 1 death.

(3) Time of operations unknown in 8 cases, 6 recoveries, 2 deaths.

During antiseptic and aseptic times 71 cases were operated on.

(1) Early operations (at least ten days after the foreign body has been swallowed) 28 cases; 26 recoveries, 2 deaths; 92.7 per cent. recoveries.

(2) Late operations 29 cases; 25 recoveries, 4 deaths; 86.2 per cent. recoveries.

(3) Time of operations unknown, 14 cases; 13 recoveries, 1 death; 92.7 per cent.

Treatment.—From the above statistics it is evident that it is best to remove foreign bodies at once by gastrotomy inasmuch as delay may not only occasion serious gastric disturbance, but may also make any further operative procedure more difficult and serious.

[Note.—A series of charts are appended giving the details of the 90 cases operated on for removal of foreign bodies from the stomach.]

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A STATISTICAL REPORT OF GASTROTOMIES FOR REMOVAL OF FOREIGN BODIES FROM THE STOMACH.

No.	Date.	Literature.	Operator.	Sex, Age, Occupation.	Foreign Body.	Time in Stomach.	Condition before Operation.
1	1602	Kaiser. Czerny. Beitr. Ep. Chir. 1878, p. 98.	Mathis, in Prague.	M., 36, juggler.	Knife.	51 days.	No great inconvenience.
2	1635	Berlin. klin. Woch. No. 7, 1883.	Daniel Schwabe, Koenigsberg.	M., 22, farm hand.	Table knife.	41 days.	No great difficulty.
3	1692	New. Mag. F. Aertz v. Baldinger xiii, p. 570, 1791. Rich. Bost. Med. & Surg., Dec. 16, 1886.	Wessner, in Halle.	Ruluff Hallischer, messer schlucker. M., 16, farm hand.	Knife.	7 months.	No great difficulty.
4	1720	Meyer, Weber, Gas. trot Inang. Dess. Sup. 1862, p. 12. Mem. de l' Acad. Royal, 1743, iii, p. 167.	Huebner, Rostenberg.	Woman.	Knife, 16.5 cm.	11 days.	Three days no disturbance. Then sharp pain. Soon knife could be felt in left side.
5	1786	Kaiser, Czerny, Beitr. 1878, p. 99.	Frisac, Toulouse.	Man porter.	Piece of knife, 4.5 cm. long.	11 days.	
6	1805	Reist's Mag. F. D. Cayroche, in Gesam. Heilk. xiii, 1820, p. 124.	Mendes.	Woman, 24.	Silver fork, 3-pronged, 17x2 cm.	229 days.	Fork felt through epigastrium in 5 months, vomiting, severe pain, emaciation, swelling in left side, size hen's egg.
7	1812	Adelman. Prag. Viertel. Jahressch., 1876, 131, p. 78. Frariep's not 1822, No. 36, p. 224.	Reynard, in Grenoble.	Lajaresse, young juggler.	Fork.	31 days.	Fork felt through abdominal wall.
8	1823	Kaiser. Czerny. Beitr. 1878, p. 100. Sedillot Contrib. a la Chir., 1868, ii, p. 456.	Bertherand.	Cavalryman.	Silver spoon.	Several weeks.	Pain in the stomach one week, followed by pain in the epigastrium.
9	1850	Richardson, Bos. Med. and Surg., Dec. 16, 1886.	Garcia.		Stick 10 inches long.		
10	1830	Adelmann, Prager Vier. Jahressch., 1876, vol. 131, p. 79	Fidelli, in Rivaam Gardasee, 1836.	Darminica Borsetti, Chia Cari, peasant widow, 50.	Brass fork handle and 4-pronged fork without handle, 10 cm. long.	2½ years.	Terrible pain, violent cramps. Insomnia. Vomiting after each morsel of food.
11	1840	Adelmann, Prager Vier. telgahresschrift f. d. Praktische Heilkunde, 1896, vol. 131.	Tilanus, in Leyden.	Insane woman, 32.	Silver fork, 21 cm. long, also piece of earthen ware pyramidal in shape, 2x1 cm.	3 days.	Extremely emaciated, swallowing followed by dysphagia; presence of body determined by palpation and by use of metal stomach sounds.
12	1855	Sc., July, 1855.	J. Bell, Wapella, Iowa, U. S. A.	M., 27, in drunken fit.	Bar of lead, 10x¼x½, 1 lb. in weight.	9 days.	No inconvenience at first. Eighth day pain, vomiting and prostration.
13	1856	Kaiser, Czerny. Beitr. Operat., Heilk., 1878.	Gluick, America.		Tracheal catheter.		
14	1856	Schmidt's Jahrbücher, 1876, p. 170.	Military surgeon.		Fork.		
15	1857	Adelmann, Prag. Viertel. Jahressch., 1876, in Lyons, 131, p. 78.	Bouchet.	Woman.	Silver fork.		
16	1858	Richardson, Bos. Med. and Surg., Dec. 16, 1886.	Holbeck, Wadkinsk.	Peasant. Simon Wadion.	Iron fork, wood handle, 21 cm. long.	6¼ months.	Nausea, loss of appetite, vomiting.
17	1870	Schmidt's Jahrbücher, 1876, p. 172.	Leon Labbe, Paris.	Lansseur.	German silver fork, 5 prongs.	2 years and 10 days.	Symptoms of asphyxia ceasing after fork passed larynx, later severe attacks of gastralgia, with syncope, failure of health end of second year, fork prongs felt in region of the stomach.

Operation.	Adhesions.	After Treatment.	Result.	Remarks.
Adhesions produced by irritant plasters, knife extracted through this incision.	Pyloric end of stomach to abd. wall.		Recovery.	
Incision beneath and parallel to the short ribs. Stomach hooked up with a curved needle. Knife removed through cut made upon blade, which could be felt in the stomach. Stomach left to take care of itself. Abdomen closed with five sutures.	None.	Abdominal stitches removed on 2nd and 3rd day. Wound washed with wine and strict diet 14 days.	Recovery after 2 weeks.	First few day bloody urine. First stools also bloody. Lived many years in perfect health.
Seven months after swallowing, ulceration 3 fingers' breadth beneath the pit of the stomach. Marked redness. Six days later spontaneous opening with fetid pus. Nine weeks later knife appeared in the wound. It was fastened with silk thread, and tied around boy's waist. Two weeks later spontaneous delivery.	Extensive.		Recovery.	
On eleventh day incision in left hypochondrium, where suppuration had occurred. At this point knife had penetrated stomach wall.	Pyloric end of stomach to abd. wall.		Recovery in short while.	
Incision into the epigastrium, parallel with the linea alba, through which knife could be felt; knife had pierced the stomach wall, could be grasped. Knife removed. Two stitches in stomach wound, one quilt suture in abdominal wound.	Present.		Recovery.	Case overlooked until recently. Baron Larry present at operation.
Incision 5 cm. long, made over swelling from above downward; recti abdominales drawn to one side. Stomach opened, fork withdrawn, tines first.	Extensive.	Bleeding practised after operation. Wound fever; abdomen tender; gastric fistula. Solid food 6th day. Left bed on 14th day.	Recovery in 51 days.	
Gastrotomy right side of abdomen.			Recovery.	
With exploring needle. Hard resonant body felt. Incision removing spoon with forceps.	General.	Simple dressing.	Rapid and permanent recovery.	
			Recovery.	Doubtful.
Fifteen months after swallowing, abscess appeared in right hypochondrium. Two months later large quantity of pus discharged through mouth. One month later opening of abscess outward, after repeated opening and closing of abscess, sharp end of fork appeared, remaining in same position 11 months. Opening enlarged, fork removed.	Extensive.	Wound closed in 15 days.		Convulsions followed operation. Slight hæmorrhage, food particles discharged through wound. Hysterical subject who became insane after death of son.
Under ether narcosis, incision 8 inches long, parallel to the linea alba, from a point 3 inches below ensiform cartilage. Stomach not seen but felt; drawn forward and fixed with forceps. Incision into stomach 2½ cm., accompanied by free hæmorrhage. After repeated efforts fork and earthenware located and removed. Stomach closed with five sutures, ends of which were allowed to project from lower angle of abdominal wound; latter closed with simple sutures, secured by adhesive strips.	None.	On 1st and 2nd day occasional vomiting of greenish yellow fluid. Abdomen painful, tender, tympanitic. Pulse 2nd day small and weak.	Death, 3d day.	Autopsy, plastic exudate in the wound. Region of stomach, liver and abdominal wall glued together. Stomach wound closed. Dilatation great. Upper end of the œsophagus wounded. Perforation in the region of the larynx. Suppurating lines near thyroid gland.
Jan. 3, incision four inches long from umbilicus to false ribs. Two inches to left of median line. Incision into stomach large enough to withdraw bar of lead. Allowed to close by contraction of muscular wall of stomach. Abdomen closed with sutures.	None.	Symptoms of gastritis. Injection of morphine. Two days. Venesections. Enema. Abdominal wound healed in 5 days.	Recovery, 14 days.	At work, Feb. 19, 1885. Operation done in 20 min.
			Death.	
Gastrotomy.			Recovery.	
Gastrotomy.			Recovery.	
Between 7th and 8th ribs small fluctuation. Cav-ity with fistula secreting fetid pus. Metallic body felt, incision made, fork extracted.	Extensive.	Discharge of cartilaginous portions of 7th and 8th ribs.	Death 3 mos. later.	Death due to caries of sternum and several ribs. Autopsy shows perfect adhesions of stomach incision with abdominal wound.
Caustics first applied to produce adhesions of stomach to abdominal wall without success. Incision 4 cm. long, internal to and parallel with false ribs; with forceps part of the stomach grasped and drawn through abdominal wound. Sutured in position with 8 stitches, incised, and fork removed with forceps.	None.	Solid food after 4th day. Complete No fistula remaining after recovery. 15th day.		

No.	Date	Literature.	Operation.	Sex, Age, Occupation.	Foreign Body.	Time in Stomach.	Condition before Operation.
18	1879	Hacker, Magens. pe- rat., 1886, N. Y. Med. America. Rec., xv, June 6, 1879.	J. C. McKee,	M., 28, laborer.	Copper wire, 3 in.	2 months.	Wire inserted into nostril disappeared in the pharynx and then in stomach.
19	1886	Berliner klin. Wo- chen., Richardson, Bos. Med. and Surg., Dec. 16, 1886.	W. Bille.		Sponge covering pen- cil attached to silver wire 50 cm. long.		Esophagotomy done first at level of hyoid bone, body could not be grasped.
20	1880	Med. Press and Cir- cular, N. S., xxxii, 1881, p. 32.	L. A. Fleury.	M., cook.	Plated dinner fork.	2 months and 6 days.	No inconvenience except slight nausea and vomiting. Two months later jumped from low fence, felt sharp pain in upper abdomen; fork prongs felt through abdominal wall.
21	1880	Berliner klin. Woch., 1883, p. 106.	Felizet.	M., 19, waiter.	Spoon.		
22	1882	Richardson, Bos. Med. and Surg., 86. Lan- cet, ii, p. 1014.	Beattie, Dean, Hong Kong.	Ito, M.	Tooth brush.	5 days.	
23	1883	Correspondenzblatt für Schweizer Aerz- te, 1883, No. 22-24.	Kocher, Berne.	M., 37.	Coin probang.	1 day.	Hardly any disturbance.
24	1883	Centralb. F. Chir., 1884, vol. 42, p. 708. London Lancet, 1886, No. 3.	Gussenbauer, Prague.	M., 29, sword swallower.	Part of sword 27 cm. x 2 cm. Jagged end, round point.	2 days.	Emetics and suspension by feet. Fever, vomiting and hiccough, not palpable.
25	1883	Langenbeck's Arch., vol. 29, p. 609.	Schönborn. Königsberg.	F., young girl.	Hair ball.	Formed grad- ually.	Tumor in left side of abdomen supposed to be spleen, omentum or floating kidney.
26	1883	Centralb. F. Chir., 1884, p. 708. Lon- don Lancet, 1886, No. 3.	Knowsley, Thornton.	F., 17.	Hair ball 9 inches long.	Formed grad- ually from combings.	Diagnosed as abdominal tumor.
27	1883	Centralb. F. Chir., 1883, p. 342. Gaz. des Hôp., 1883, No. 39.	Gerard, Borgueil.	M., 30.	Stick of elm wood 21.5 cm. long.	6 weeks.	Pain, nausea, vomiting, purgatives used without success.
28	1885	Billroth, Langenbeck's Arch., Vienna, vol. 29, p. 609.	Billroth, Vienna.	Girl, 19.	Plate of six teeth.		Painless palpation, nothing detected.
29	1885	Langenbeck's Arch., vol. 33, p. 574.	Crede, Dresden.	Fredrick Möcher, M., 24, hair dress- er.	Plate with 8 teeth and two clamps.		Pain in the pylorus, then vomiting and sleeplessness and great excitement.
30	1886	New York Med. Rec- ord, 1886.	Bernays, St. Louis.	M., 28, tailor.	Knife, 24 cm. long.	30 minutes.	No great inconvenience.
31	1886	Bull. de l'Acad. de Pod- aillon. Méd., Aug. 24, 1886.		M., 24.	Plated iron fork, 21 cm. long, wt., 59 gm.	15 days.	Diagnosis with electromagnet, positive result.
32	1886	Lancet, 91, p. 249. Brit. Med. J., Jan. 1893.	Lawson.	M., 37.	Iron wire, 7½ ins. long. Clay pipe stem, 2½ in.		
33	1886	Boston Med. & Surg. J., 1886, ii, p. 569.	Richardson.	Jno. McC., M., 37, team- ster.	Plate with teeth.	11 months.	Constant pain, great emaciation, inabil- ity to swallow food. Body detected with iron probang about 2 inches above car- diac opening into the stomach.
34	1887	Langenbeck's Arch., vol. 37, p. 233.	Stelzner.	M., 25.	Six pieces of wood, 8-10 cm. long, .75-1 cm. thick.	23 days.	Serous membrane of stomach pale. Mu- cous membrane engorged.
35	1887	N. Y. Med. J., 1887, Bull. vol. ii, p. 481.		M., 16, boy.	Peach stone.	0 days.	Stone lodged in the esophagus near the cardiac opening.
36	1888	Nord. Med. Archiv., Berg. Schmidt, Jahrb., 218.			Hair ball, wt. 900 gm.		
37	1888	J. Amer. Med. Ass., Witte. Centralb. f. Chir., 48.		F., 31, acute mania.	Four-prong fork, 7½ in. long.	3 months.	
38	1889	Bull. de Chir. Vir- chows Jahrb., ii, p. 524.	Terrier.	M., 19, butcher.	Fork, 22 cm. long.	24 hours.	

Leucocytes in Peritonitis Due to Extension and to Perforation.—Augusto Laghi (*Clinica Moderna*, June 10) induced peritonitis in various ways in nine rabbits, with the object of determining whether he could obtain a differential leucocytic formula that would indicate whether the peritonitis is of perforative origin or simply arises by extension of infection. He failed to obtain such a differential feature on counting the various types of white cells found in the blood of the animals experimented upon. In the nine cases of peritonitis he obtained a leucocytosis only in four instances; this phenomenon therefore is lacking in over fifty per cent. of cases of peritonitis. If this occurs also in man, then leucocytosis is not at all a trustworthy sign in peritonitis. In all the nine cases, however, he found a relative increase of the polynuclear cells, which appeared early and lasted for a considerable time. The author suggests that this increase of the polynuclears, if it occurs in man, would give a valuable clue to the presence of perforative peritonitis in typhoid fever, as in such cases the relative lymphocytosis of ordinary typhoid would give place to a relative increase, or at least a normal proportion of the polynuclears.

Official News.

Infectious Diseases in New York:

We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending July 11, 1903:

DISEASES.	Week end'g July 4.		Week end'g July 11.	
	Cases.	Deaths.	Cases.	Deaths.
Measles	360	12	387	21
Diphtheria and Croup.....	325	47	354	36
Scarlet fever.....	157	14	183	16
Small-pox	0	0	1	0
Chicken-pox.....	58	0	56	0
Tuberculosis	247	123	267	116
Typhoid fever	45	9	78	13
Cerebrospinal meningitis .	0	0	0	4

Public Health and Marine Hospital Service:

Official List of the Changes of Station and Duties of Commissioned and Non-commissioned Officers of the Public Health and Marine Hospital Service for the Seven Days Ending July 9, 1903:

CHANDLER, R., Acting Assistant Surgeon. Granted leave of absence for eight days, from July 18th.

CLEAVES, F. H., Acting Assistant Surgeon. Granted leave of absence for twenty-three days, from July 6th.

DECKER, C. E., Assistant Surgeon. Granted extension of leave of absence, on account of sickness, until July 15th.

GASSAWAY, J. M., Surgeon. Leave of absence granted Surgeon Gassaway for two days, from June 28th, amended so as to be effective from July 5th.

MCLAUGHLIN, A. J., Assistant Surgeon. Assigned in charge of Miscellaneous Division, Bureau of Public Health and Marine Hospital Service.

PRIMROSE, R. S., Acting Assistant Surgeon. Granted leave of absence for ten days.

ROBERTSON, H. MCG., Assistant Surgeon. Granted leave of absence for five days.

STONER, G. W., Surgeon. To proceed to Richford, Vt.; Malone, Niagara Falls and Buffalo, N. Y.; Montreal, Canada; Port Huron, Detroit, and Sault Ste. Marie, Mich., for special temporary duty.

TROTTER, F. E., Assistant Surgeon. Granted leave of absence for seven days.

WIGHTMAN, W. M., Acting Assistant Surgeon. Granted extension of leave of absence for one week, from June 26th.

Board Convened.

Board convened to meet at Washington, D. C., July 8, 1903, for the purpose of considering the preparation of plans for the inspection of vaccine farms and antitoxine establishments. Detail for the board: Assistant Surgeon-General H. D. GEDDINGS, Chairman. Passed Assistant Surgeon, M. J. ROSENAU. Passed Assistant Surgeon J. F. ANDERSON, recorder.

Public Health and Marine-Hospital Service
Health Reports:

The following cases of smallpox, yellow fever, cholera and plague, have been reported to the surgeon-general. Public Health and Marine-Hospital Service, during the week ending July 11, 1903:

Smallpox—United States.

Places.	Dates.	Cases.	Deaths.
California—Fresno	June 1-30	7	
California—Stockton	June 1-30	4	
Colorado—Denver	June 6-20	15	
Georgia—Atlanta	June 24-July 4	2	
Illinois—Belleville	June 27-July 4	6	
Illinois—Chicago	June 27-July 4	11	
Indiana—Elwood	June 28-July 3	3	
Iowa—Des Moines	June 27-July 4	3	
Kentucky—Lexington	June 27-July 4	1	
Louisiana—New Orleans	June 27-July 4	1	
Maryland—Baltimore	June 27-July 4	1	
Maryland—Cumberland	May 1-31	24	4
Maryland—Cumberland	June 1-30	21	2
Massachusetts—Fall River	June 27-July 4	1	
Massachusetts—New Bedford	June 29-July 6	1	
Michigan—Detroit	June 27-July 4	5	1
Michigan—Flint	June 27-July 4	1	
Michigan—Grand Rapids	June 27-July 4	1	
Michigan—Port Huron	June 27-July 4	5	
Minnesota—Winona	June 27-July 4	1	
Missouri—St. Louis	June 21-28	2	
Missouri—St. Louis	June 28-July 5	5	
Montana—Helena	June 1-30	1	
New Hampshire—Manchester	June 27-July 4	7	
New York—Elmira	June 27-July 4	1	
Ohio—Hamilton	June 27-July 4	1	
Ohio—Toledo	June 27-July 4	1	
Pennsylvania—McKeesport	June 27-July 4	2	
Pennsylvania—Philadelphia	June 26-July 3	30	8
Pennsylvania—Pittsburg	June 20-July 4	46	9.
two cases imported.			
South Carolina—Charleston	June 27-July 4	8	
South Carolina—Greenville	June 20-27	1	
Tennessee—Nashville	June 27-July 4	1	
Utah—Salt Lake City	June 21-27	7	
Washington—Tacoma	June 20-29	1	

Smallpox—Insular.

Philippine Islands—Manila	May 8-16	0	
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Smallpox—Foreign.

Belgium—Brussels	June 13-20	7	
Belgium—Liege	June 6-13	1	1
Brazil—Rio de Janeiro	May 31-June 14		12
Canary Islands—Las Palmas	June 6-13	9	
Chile—Antofagasta	May 1-31		3
China—Hongkong	May 29-27	2	
Colombia—Bocas del Toro	June 13-24	2	
Great Britain—Birmingham	June 13-20	1	
Great Britain—Dublin	June 13-20	9	3
Great Britain—Leeds	June 2-27	10	
Great Britain—Liverpool	To June 20	24	
Great Britain—London	June 13-20	16	
Great Britain—Manchester	June 13-20	3	
India—Bombay	June 29-27	27	
India—Calcutta	May 30-June 6	2	
India—Karachi	May 30-June 7	1	
Mexico—Coatzacoalcas	June 2-27	1	
Mexico—Tampico	June 2-27	1	
Russia—Moscow	June 6-13	3	
Russia—St. Petersburg	June 11-20	37	
Russia—Warsaw	May 31-June 6	6	
Turkey—Constantinople	June 14-21	1	

Yellow Fever.

Alabama—Mobile	July 1	1	8
Mount Vernon	July 4	1	1
at Gulf Coast, near Ship Island	July 4	1	1

Yellow Fever.

Florida—Gainesville	June 6-13	1	
Mexico—Progreso	June 23-27	1	
Mexico—Tampico	June 13-20	27	23
Mexico—Tampico	June 20-27	30	
Mexico—Vera Cruz	June 2-27	27	8

Cholera—Insular.

Philippine Islands—Manila	May 8-16	66	58
Philippine Islands—Provinces	May 8-16	358	45

Cholera—Foreign.

India—Bombay	June 2-9	1	
India—Calcutta	May 30-June 6	35	
India—Kanton	May 31-June 7	1	

Plague—Insular.

Philippine Islands—Manila	May 8-16	8	8
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Plague—Foreign.

Africa—Cote d'Ivoire	May 10-16	6	
China—Amoy	May 9-11	50 deaths daily	
China—Tung Kiang	May 12-14	Increasing.	
India—Bombay	June 2-9	229	
India—Calcutta	May 30-June 6	11	
India—Kanton	May 31-June 7	43	35
Japan—Nagasaki	May 29-31	1	1
Japan—Yokohama	May 28-30	3	3

Naval Intelligence.

Official List of Changes in the Medical Corps of the United States Navy, for the Week Ending July 11, 1903:

- DESSEZ, P. T., Assistant Surgeon. Ordered to Naval Hospital, Navy Yard, Washington.
- DICKSON, S. H., Medical Inspector. Granted sick leave for three months.
- GEIGER, A. J., Assistant Surgeon. Ordered to Naval Hospital, Navy Yard, Norfolk, Va.
- HARRIS, H. N. T., Surgeon, detached from the *Glacier* and ordered home to await orders.
- KOHLHASE, O., Assistant Surgeon. Ordered to Naval Hospital, Mare Island, Cal.
- MANCHESTER, J. D., Assistant Surgeon. Ordered to Naval Hospital, Navy Yard, Boston, Mass.
- MILLER, J. T., Acting Assistant Surgeon. Ordered to Navy Yard, Mare Island, Cal.
- PLUMMER, G. R., Acting Assistant Surgeon. Appointed acting assistant surgeon with rank of lieutenant, junior grade, from July 1, 1903.
- RANDALL, J. A., Assistant Surgeon. Appointed assistant surgeon with rank of lieutenant, junior grade, from June 26, 1903.
- ROEN, W. S., Assistant Surgeon. Ordered to Naval Hospital, Navy Yard, Norfolk, Va.
- RYDER, C. E., Assistant Surgeon. Appointed assistant surgeon with rank of lieutenant, junior grade, from June 26, 1903.
- SMITH, W. B., Assistant Surgeon. Ordered to Naval Hospital, Pensacola, Fla.
- SUTTON, R. L., Assistant Surgeon. Detached from the Naval Hospital, Washington, D. C., and ordered to Baltimore, Md., for special temporary duty.
- TYREE, F. W., Acting Assistant Surgeon. Appointed acting assistant surgeon with rank of lieutenant, junior grade, from July 1, 1903.
- WIEBER, F. W. F., Surgeon. Detached from Naval Academy, and ordered to await orders.
- WOODWARD, J. S., Assistant Surgeon. Ordered to Naval Hospital, Navy Yard, Washington.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department of the United States Army, for the Week Ending July 11, 1903:

- SHAW, HENRY A., Captain and Assistant Surgeon, left Washington Barracks, D. C., on two months' leave of absence, July 2, 1903.
- HENDERSON, A. B., First Lieutenant and Assistant Surgeon, is granted forty-five days' leave of absence on surgeon's certificate of disability.

Births, Marriages and Deaths.*Born.*

MILLER.—In New York, to Dr. and Mrs. A. R. Miller, a daughter.

Married.

MORRIS—GALBRAITH.—In San Francisco, Cal., on Tuesday, June 30th, Dr. Charles Alfred Morris and Miss Jessie Galbraith.

ROSENTHAL—HUME.—In Indianapolis, Ind., on Saturday, July 11th, Dr. Jacob Rosenthal and Miss Dorothy E. Hume.

SHELMAN—LOVELAND.—In Battle Creek, Mich., on Monday, July 6th, Dr. A. C. Shelman and Dr. Bertha E. Loveland.

SKINNER—MILLER.—In Le Roy, N. Y., on Tuesday, June 30th, Dr. Robert Lee Skinner and Miss Jessie Burder Miller.

YOUNG—TAYLOR.—In Washington, D. C., on Wednesday, July 8th, Dr. Parke Young and Mrs. Elizabeth Blackstone Taylor.

Died.

BLANN.—In Oswego, N. Y., on July 13th, Dr. Simeon W. Blann, aged seventy.

BOZMAN.—In New Alexandria, Ohio, on Friday, July 3d, Dr. J. V. Bozman.

BOZMAN.—In New Alexandria, Ohio, on Wednesday, July 8th, Dr. Harden E. Bozman, in the forty-fifth year of his age.

BUTLER.—In Shepherdstown, W. Va., on Thursday, July 9th, Dr. C. T. V. S. Butler, in the fifty-second year of his age.

CRAWFORD.—In Brooklyn, on July 13th, Dr. George Chapell Crawford, in the thirty-fifth year of his age.

CULLEN.—In West Philadelphia, Pa., on Friday, July 10th, Dr. James F. Cullen, 3623 Hamilton Street.

DIXON.—In Canal Dover, Ohio, on Thursday, July 2d, Dr. James Dixon.

FALLIGANT.—In Savannah, Ga., on Sunday, July 5th, Dr. Louis A. Falligant, in the sixty-sixth year of his age.

FERGUSON.—In Windsor, Ontario, on Wednesday, July 1st, Dr. James C. Ferguson, in the twenty-fourth year of his age.

FLINT.—In Boston, Massachusetts, on Sunday, July 5th, Dr. David Boardman Flint, in the eighty-seventh year of his age.

GARWOOD.—In Cassopolis, Michigan, on Wednesday, July 1st, Dr. Alonzo Garwood, in the seventy-ninth year of his age.

HARMON.—In Warren, Ohio, on Wednesday, July 1st, Dr. Julian Harmon, in the seventy-ninth year of his age.

HUTCHINS.—In Chicago, Ill., on Monday, July 6th, Dr. Asa V. Hutchins.

LANCASTER.—In Plainfield, N. J., on Monday, July 6th, Dr. Charles Lancaster, in the ninety-sixth year of his age.

MILLER.—In New York, on Saturday, July 11th, Dr. Joseph C. Miller, in the forty-eighth year of his age.

MORLEY.—In Sandusky, Ohio, on Saturday, July 4th, Dr. Frank W. Morley.

PARKER.—In Ship Island, Mississippi, on Monday, July 6th, Dr. R. B. Parker.

PARKER.—In Mobile, Ala., on Tuesday, July 7th, Dr. Paris Brown Parker, in the twenty-third year of his age.

PARMITER.—In Syracuse, N. Y., on Monday, June 29th, Dr. George C. Parmiter, in the eighty-second year of his age.

PERKINS.—In Germantown, Philadelphia, on Monday, July 6th, Dr. J. Alfred Perkins, in the seventy-first year of his age.

RADCLIFFE.—In Washington, D. C., on Thursday, July 9th, Dr. Samuel J. Radcliffe, in the seventy-fifth year of his age.

RUBINSTEIN.—In Baltimore, Maryland, on Wednesday, July 1st, Dr. Charles Rubenstein, in the sixtieth year of his age.

VAN NOY.—In Kansas City, Missouri, on Thursday, July 2d, Dr. Henry C. Van Noy, in the seventy-first year of his age.

WRIGHT.—In Argentine, Missouri, on Saturday, July 4th, Dr. James L. Wright, in the sixty-sixth year of his age.

New York Medical Journal AND Philadelphia Medical Journal. CONSOLIDATED.

A Weekly Review of Medicine

VOL. LXXVIII, No. 4.

SATURDAY, JULY 25, 1903.

WHOLE NO. 1286.

Original Communications.

REMOVAL OF THE INTERNAL JUGULAR VEIN AND CAROTID ARTERIES IN ORDER TO REMOVE A TUMOR IN THE LEFT SIDE OF THE NECK.*

By NEIL MACPHATTER, M. D., C. M., F. R. C. S.,

NEW YORK,

ADJUNCT PROFESSOR OF SURGERY, POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL.

Tumors situated deeply in the side of the neck are frequently exceedingly difficult to remove. It is reasonable that this should be so, for the important and minute anatomical structures therein contained render operative procedures for certain neoplasms dangerous to the patient and are, moreover, full of anxious moments for the surgeon. The subject of this operation was one of them. I have purposely refrained from giving a report of this case at an earlier date, in order that I might be in a position to report the subsequent condition of a patient in whom segments of the internal jugular vein and carotid arteries on the left side have been entirely removed.

One has but to recall the anatomy of the side of the neck to know that some of the most vitally important organs of the body are here contained. The large arteries, distended with blood, are on the way to nourish the head and brain. Veins equally distended convey the useless blood back from the brain; nerves absolutely essential to the control and maintenance of life itself here pass down and interlace on all sides; and larger and smaller blood vessels zig-zag and cross in every conceivable direction. This part of the neck may be justly considered the "subway" for the transaction of business of the greatest possible moment to the organism. Blood is to be conveyed to and from the brain and head, and sensory and motor impulses are constantly being wafted along delicate and tender filaments. The plan devised by Nature for the conveyance of blood to these regions of the body is wonderfully clever and subtle.

* Figs. 1, 2, 3, and 4, referred to in the text, will be found on the colored supplement.

The great centres of thought and volition and of life itself are to be nourished, and nowhere in the whole field of anatomy is to be found a more exquisitely perfect scheme. Skeins of delicate nerves and blood vessels interweave themselves with such refinement and nicety as to demand our admiration and excite our wonder.

So far as a consideration of the present operation is concerned, the carotid sheath and its contents elicit our attention, for it was in them that the greatest interest centred. For this reason, a short running description of these parts may not be out of place. This sheath, as is well known, contains the carotid arteries, the internal jugular vein, and the great pneumogastric nerve.

The left common carotid artery, which is the artery we have here to deal with, arises from the highest curve of the arch of the aorta. It is consequently considerably longer than the right. In the neck it passes obliquely upward from the sternoclavicular articulation to a point opposite the third cervical vertebra, where it divides into the internal and external carotids. The external carotid passes upward, giving off eight large branches, which supply the head and neck and the external part of the skull; while the internal carotid enters the cavity of the skull and supplies the anterior part of the brain, the eye, and its appendages.

The internal carotid arteries, together with the vertebrals, when they reach the base of the brain form the great circle of Willis, from which branches are given off in all directions that ultimately penetrate into the most innermost recesses of the brain. In tracing out the course of the internal carotid in the dead body, one is immediately struck with a characteristic peculiarity of this vessel, and that is the unusual number of its curvatures. In all probability, these are for the purpose of diminishing the velocity of the current of blood to such a low and even ebb that when the brain substance is reached, the impact will not be too great. It is for this reason that the muscular walls of the intracranial arteries are thinner than those in the arteries of other parts of the body.

The entire removal of the internal jugular vein

and carotid arteries of one side suddenly changes the whole plan of the circulation of the brain, and one would naturally suppose that strange and peculiar manifestations would be the result. In this instance, however, nothing of the sort took place, for all the functions of the brain were carried on without the least indication of disturbance, mentally, or in regard to vision. The collateral circula-



FIG. 5.—A Diagrammatic illustration showing the position and appearance of the tumor

tion was carried on, no doubt, through the following anastomoses:

1. Of the vertebrals of either side with each other through the circle of Willis (Figs. 4 and 6).
2. Of the deep cervical and the princeps cervicis arteries.
3. Of the vertebral with the occipital.
4. Of the inferior thyreoid with the superior thyreoid.
5. Of the transversalis colli with the occipital.
6. Of the terminations of the anterior temporal with branches to the ophthalmic.

The Internal Jugular Vein.—The venous blood of the brain is collected by the various intracranial blood sinuses, and the majority of these ultimately meet at the confluence of sinuses known as the torcular Herophili. From this begins the lateral sinus, and before it makes its exit from the skull through the jugular foramen it is joined by the inferior petrosal sinus. From the jugular foramen down the side of the neck, to where it joins the subclavian vein, it is called the *internal jugular vein*. At its commencement this vein is somewhat unevenly dilated. It is included in a common sheath

with the carotid artery and the pneumogastric nerve. The sheath that incloses these structures is derived from the deep cervical fascia, and is quite firm and elastic. It is to be remembered, however, that each of these structures has a separate and distinct sheath of its own. It is important to remember this fact, because the compartment which contains the artery or vein can, and ought to be, opened separately without any interference with the other. It is owing to this separate cover that the vein is held in its relative position in regard to the artery, and is prevented from bulging unduly over the artery in certain positions of the neck. The internal jugular vein lies on the outside of the internal and common carotid arteries, with the pneumogastric nerve between them and on a plane posterior to both. About the middle of the neck, the glossopharyngeal and hypoglossal nerves pass down to its inner side.

The Pneumogastric Nerve.—So far as the pur-

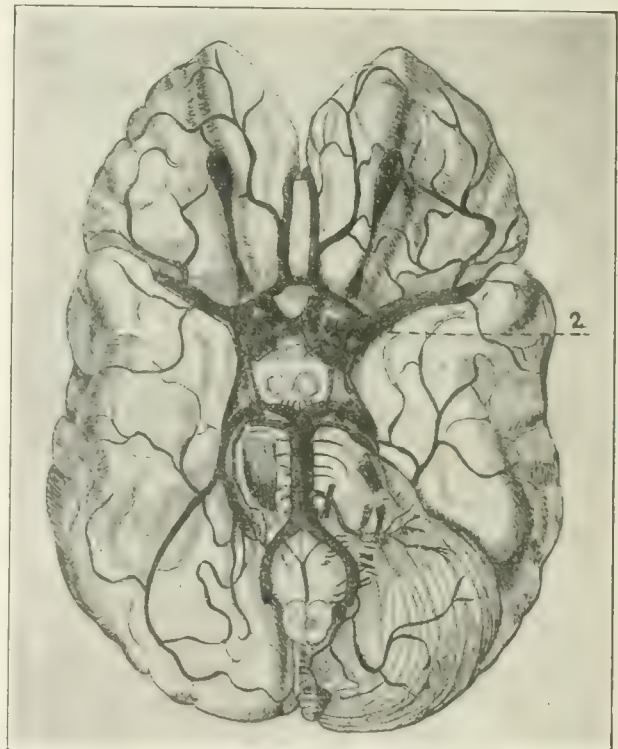


FIG. 6.—(1) The base of brain and circle of Willis. (2) The internal carotid artery.

poses of the operation about to be described, were concerned, this nerve held an essentially important significance. A few words, therefore, as to its relations and functions may not be here out of place. This is the most remarkable nerve of the body, and it is exceedingly doubtful if its various functions are yet understood. It passes out of the skull through the jugular foramen and down the neck between and behind the internal carotid artery and the jugular vein. This nerve supplies the pharynx,

larynx, trachea, lungs, œsophagus, stomach, spleen, and kidneys. It is through its extensive communications with the sympathetic system that it is enabled to control practically the whole of the internal viscera. In shock this is the nerve principally affected. Hence it is that much handling of viscera in abdominal operations is followed by a corresponding amount of shock. All the viscera of the body are intimately associated with each

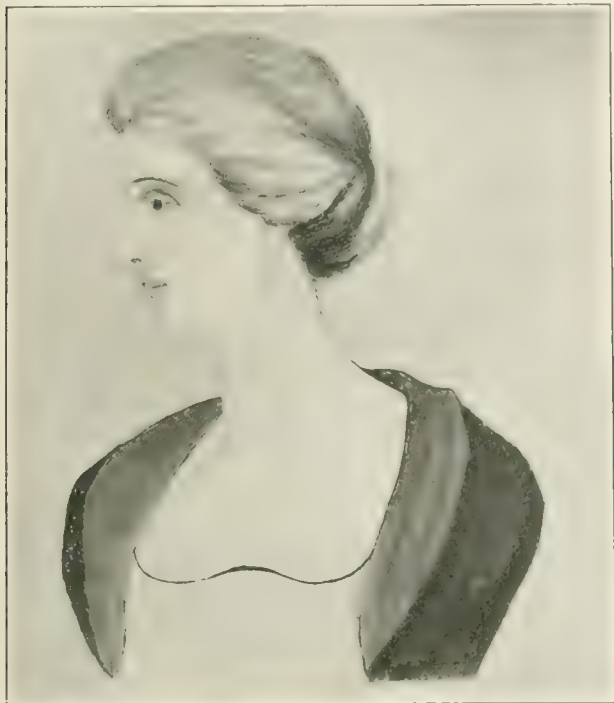


FIG. 7.—The line of incision.

other by means of the numerous plexuses; these in their turn are connected with the great pneumogastric nerve. Should any of the nerve of the abdominal cavity become irritated, reflex action, such as nausea, vomiting, and other gastric disturbances, is almost sure to follow. It is for this reason that vomiting of pregnancy is so frequent, and to this the peculiar stomachic symptoms in floating kidney are due. The pneumogastric nerve is the one most intimately connected with the emotions, whether of joy, pity, or sorrow. From its excessive cardiac inhibitory effect occurs the form of death spoken of as a "broken heart."

It is, then, a nerve of great importance, and division of it would no doubt end disastrously. It was intimately incorporated in the growth to be removed, and was exceedingly difficult to liberate with safety.

CASE.—The subject of this operation was a young married woman, thirty-one years of age. She had previously been in comparatively good health. Her father died some years ago from an attack of pneumonia, and her mother of cancer.

Shortly after her first confinement, some six years ago, she noticed a small hard lump on the left side of her neck, but paid little attention to it. Recently, it had become active and begun to increase in size rapidly (Fig. 5). There was considerable pain and an uncomfortable, uneasy sensation at times. She consulted her family physician, and the seriousness of her condition was intimated to her husband. Upon examination, this growth presented many of the symptoms of an aneurysm, although it lacked the expansile character of a typical enlargement of a growth of this kind. Around its base and more particularly at its upper part, there were an unusual degree of hardness and a peculiar nodular feeling. The patient was first seen on the thirteenth day of September last, when an operation was recommended as the only treatment that could possibly be of any avail. The probabilities of the outcome and the dangers attending such an undertaking were at the same time fully stated and explained. These risks the patient and her husband accepted, and on September 16th the operation was performed before the class of the Post-Graduate



FIG. 8.—The patient three weeks after the operation, showing the scar on the side of the neck.

Medical School and Hospital. For two days before the operation she was under preparation for it. With this end in view, she was bathed night and morning, and the area surrounding the tumor and neck bandaged in gauze bandages steeped in a 2 per cent. solution of carbolic acid. For reasons that appeared good it was thought best not to make the initial incision over the body of the tumor but immediately below it, on a line of the anterior border of the

sternocleidomastoid muscle. The character of the tumor was yet to be determined. After cutting through the skin and superficial fascia, the anterior border of the muscle was reached. In the meantime, a number of small veins, which cross in this situation, were ligated, and all hæmorrhage was controlled. The anterior margin of the sternomastoid muscle was retracted outward as far as possible, and a preliminary inspection was made. It was now discovered that, whatever might be the character of the growth, it extended deeply into the neck and involved all surrounding structures in a dense, firm mass. Proceeding farther, the outlines of the carotid sheath could be plainly distinguished below the tumor. By tracing this upward, the centre of the tumor was reached, so that surrounding the carotid arteries, the internal jugular vein, and pneumogastric nerve, and apparently penetrating into their walls, was this dense, hard tumor. Extending the initial incision upward and dissecting carefully down, it was found that this part of the growth penetrated deeply behind the angle of the jaw. The tumor seemed to invade all the surrounding structures. After further dissection, an attempt was made to enucleate the mass. This was found to be impossible, and, in the effort, the internal jugular vein was torn open. Pressure was applied above, and the bleeding was controlled for the time being. The only alternative left was the rather hazardous one of removing segments of the vein at convenient points above and below the growth and the removal of the carotid arteries similarly, if necessary; with the hope of dissecting out safely the pneumogastric, glossopharyngeal, and hypoglossal nerves. With this object in view, the internal jugular vein was dissected out of the growth beyond its upper part. When it was fully liberated from its surrounding attachments a No. 2 silk ligature was passed round it and tightly tied (Fig. 2) at a point about on a plane with the angle of the jaw, and the vein was severed about a quarter of an inch below the ligature. Coming now below the tumor, a dissection was carried out, in order to reach the vein at a convenient spot. A considerable amount of hæmorrhage was encountered in accomplishing this work, owing to the many smaller blood vessels in this region that had become unduly dilated. At length the vein was reached, and its sheath opened and freed for a sufficient distance. Here, it was again tied with a ligature of the same sized silk. During all this time, bleeding was quite free from various points in the tumor, but was controlled by the pressure of hot gauze packings. It was hoped that the growth could now be removed without interference with the carotid arteries, but that was found to be impossible. Both the internal and external carotids were held firmly in the grasp of the tumor, and, moreover, their coats were seen to be diseased beyond repair. The result was that it was determined to remove a segment of the common carotid, together with the entire internal and external carotids. Consequently, at a point in the course of the common carotids below the mass, the artery was dissected out of its sheath and ligated firmly (Fig. 3). By process of careful dissection, the lower part of the growth was liberated from its surrounding attachments. The various branches of these arteries were ligated as they were approached,

and ultimately the tumor was removed. The arteries were tied at the distal end of the tumors corresponding to the parts shown in Fig. 3. Perhaps the parts of the operation attended by the most anxiety in the whole proceeding was the liberation of the pneumogastric nerve; and many times it was impossible to distinguish its appearance from that of the tumor. It is one of the times in the life of a surgeon when he feels that he is down in the valley of the shadow of death, for verily there was not the thickness of parchment between eternity and his knife. However, by dint of good fortune and patience this part of the danger was successfully passed, and a feeling of relief was experienced when this nerve was found to be intact and lying in its disturbed position (see dotted line Fig. 3). Other nerves which gave great anxiety during the dissection necessary to the removal of the mass, were the descendens noni, which lies on the sheath, the recurrent laryngeal, which crosses inward obliquely behind the sheath, and the hypoglossal. This latter nerve, after its exit from the condyloid foramen, passes almost vertically downward to a point opposite the angle of the jaw. For some distance it is rather deeply seated beneath the internal carotid artery and internal jugular vein, and its association with the pneumogastric nerve is quite intimate. Here, it passes out behind the artery and the vein, and below the digastric muscle it becomes superficial. When normal conditions prevail, one is prepared to encounter nerves during an operation with little or no risk of doing any vital injury, but the conditions are far otherwise when the nerves are twisted about and displaced from their normal position by a dense firm mass. One can conceive of no situation that fills a surgeon with greater anxiety and care.

There was little or no hæmorrhage now, as all bleeding points had been secured. The wound was washed out with a warm saline solution and closed by subcutaneous sutures, and proper dressings were applied. When this was completed the patient was removed from the operating room to her bed.

It was with a good deal of anxiety that I waited to see what symptoms would develop. Such an interference with the cerebral circulation was not calculated to leave one with a calm and peaceful mind. Until the collateral circulation should become sufficiently established, I was prepared for symptoms of giddiness, twitchings, and mental peculiarities, but none of these supervened. The condition of the patient for the immediate day following the operation differed in no respect from the ordinary and normal. The pulse, temperature, and respiration remained practically normal, or so little exceeding the normal as to be of no moment. The wound healed by first intention, and in a few days the patient was out of bed. In two weeks she was able to return to her home and has since remained in good health.

The illustrations of this operation were made by A. Banks Belt.

12 WEST FORTIETH STREET.

THE IRRITABILITY OF THE FACIAL MUSCLES: A STUDY OF ITS PHYSIOLOGICAL CAUSES AND CLINICAL SIGNIFICANCE.

By CHARLES L. DANA, M.D.

The facial muscles are particularly interesting as objects of research, because the motor and sensory nerve supplies come from entirely different nerve trunks; and it is not rare to have cases of disease in which the motor or the sensory functions are entirely abolished, so that we can study the reactions as we can in an animal experiment. Besides, the motor apparatus of the face is very delicately adjusted and extremely responsive to changes of feeling and, indeed, to all psychical states. Two

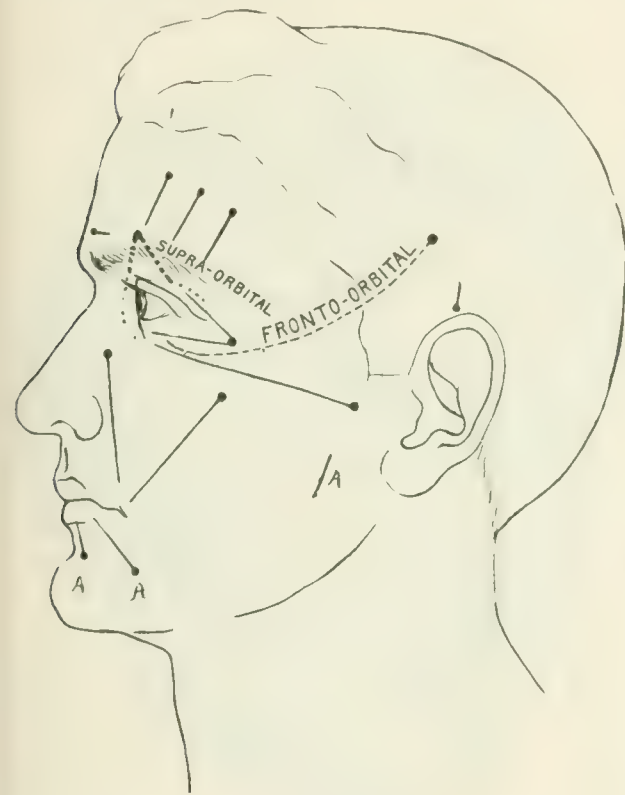


FIG. 1.—Showing normal responses. Dotted lines indicate reflexes. The continuous lines are direct, or indirect muscular responses. At A. A. A., the jawjerk is brought out.

of the facial muscles, the orbicular and oral sphincters, are in a state of especially high physiological tonus.

My observations have been made by tapping the motor and sensory nerves, the muscles and tendons, with a rubber hammer, by irritating the skin with a pin-point, and with applications of intense cold or heat. The tests have been made upon 75 persons who were either healthy or had no nervous disease, 30 cases of paresis, 10 of tabes, 6 of nervous syphilis, 6 of paralysis agitans, 3 of Basedow's disease, 3 of paralysis of the seventh nerve, 2 of total paralysis of the fifth nerve, and many cases of al-

coholism, hemiplegia, melancholia and other forms of insanity.

It is well to have understood what is the meaning of the terms employed in designating the character of the muscular responses brought about by external stimuli. When a motor nerve is struck and the muscle it supplies reacts, it is called a *neuromuscular*, or *indirect*, reaction. When the muscle or tendon is struck the resulting contraction is either a *direct* one from the immediate mechanical stimulus on the tendon and muscle, or it is a *myotatic* contraction. The *indirect* and *direct* muscular reactions are not in any sense reflex acts, nor does their presence depend upon the integrity of the sensorimotor arc. The motor nerve may be cut or the sensory nerve cut, or both, and still the muscle responds. The *myotatic* reaction, on the other hand, depends upon the disturbance to the muscle tonus caused by the mechanical stimulus, and it is produced only when the sensorimotor arc is intact. It is not a reflex act, but it will not occur unless the reflex arc is intact. This is the kind of response obtained in striking the tendons, of which the knee-jerk is an example. If the muscles, motor and sensory points of the face in healthy adults are percussed with a rubber hammer one gets practically always the following responses:

NORMAL FACIAL REFLEXES.

- | | |
|--|---|
| 1. Auriorbital response... | A contraction of the lower lid, brought out by striking over the facial nerve near the ear. |
| 2. External orbital response |) A contraction of the lids from a blow at the external canthus. |
| 3. Supraorbital response.. |  | ) A similar contraction from a blow near the exit of the supraorbital nerve. |
| 4. Frontoorbital response. | A contraction of the lower lid from striking the aponeurosis of the frontalis. |
| 5 Frontal response..... |) A contraction of the frontalis from striking a blow directly on its fibres. |
| 6 Nasooral response..... |  | ) A contraction of the levator anguli oris. |
| 7. Malar-oral response... |) A contraction of the zygomaticus. |
| 8 Levator menti response. | |
| 9 Depressor anguli oris response | |
| 10. Corrugator response... | } Produced by blows directly upon these muscles. |
| 11. Attollens aurem response | |

Nos. 6 and 7 are not always present, and 9 and 11 cannot always be brought out. No. 4 varies greatly in sensitiveness, but is always present in some degree.

The points where the blows should be made, in

order to bring out these contractions, are shown in the figure (Fig. 1). Now, in pathological conditions involving excessive muscular irritability, as in certain neuroses, paresis, and excited psychical conditions, one finds the following additional responses (Fig. 2).

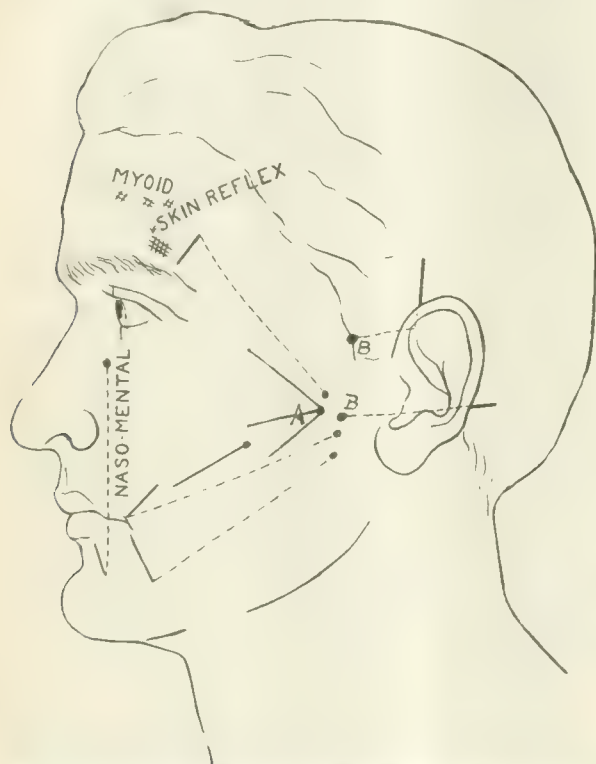


FIG. 2. Showing unusual facial responses. A. Chvostek's point; B. Aural responses.

PATHOLOGICAL FACIAL RESPONSES

- | | |
|---------------------------------------|--|
| *1. Nasomental reflex.... | } A contraction of the levator menti, brought out by striking the side of the nose near the exit of the nasal nerve. |
| 2. Aurioral response..... | |
| 3. Buccal response..... | |
| *4. Supraorbital nasal reflex..... | } A contraction of the levator anguli oris, brought out by striking near the supra-orbital notch. |
| 5. Aurifrontal response.. | |
| 6. Attollens aurem response | } Contractions of the ear muscles from a blow in front of the ear. |
| 7. Retrahens auri response | |
| 8. Double auri-orbital response | } A contraction of both lower lids from a blow in front of the ear. |
| *9. Frontal skin reflex.... | |
| 10. Myoid tumors of frontalis | } A contraction of the frontals from scratching the skin over these muscles. |
| 11. General facial response. | |

From a blow in front of the face.

In other words, all the facial muscles can be made to respond directly or indirectly, and, in addition, certain reflexes and responses can be brought out not normally present. It is not often that all these extra responses can be observed in the same patient. Generally there are two or three extra responses only. Thus, in paresis we usually get the aurioral and buccal and nasomental; occasionally the attollens aurem or the double auri-orbital. In the above list those starred * are, as will be shown later, true reflexes.

The question arises as to the exact nature of these responses. To determine this, I examined the phenomena in three cases of complete peripheral facial palsy with DR., and two cases of peripheral or nuclear trigeminal paralysis.

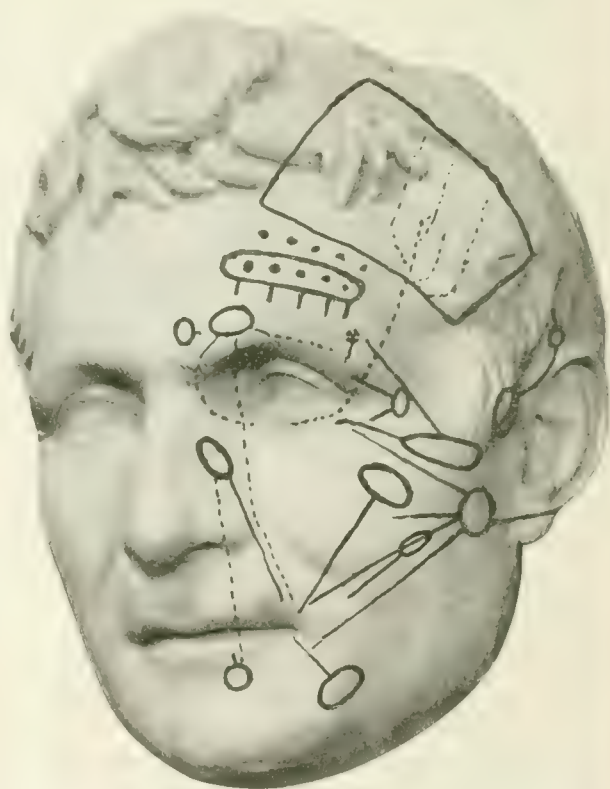


FIG. 3. Showing points at which normal and abnormal responses are brought out.

A man, aged forty years, was struck on the left side of his head and made unconscious. On regaining consciousness he was found to have a complete fifth nerve paralysis on the left side, with moderate hemiplegia, and anæsthesia to pain, touch, and temperature, and ataxia in the left hand and arm and to a less extent in the leg. The trigeminal anæsthesia was complete, typical, and persistent, and no other cranial nerve was involved. I saw him two years after the accident and he then did not feel heat, cold, touch, or a pin driven even into the bone, over the entire area of the left trigeminal nerve. This patient showed:

The auriorbital response.

The external orbital response.

The frontal response.

The nasooral response.

The aurioral response.

The mental response.

The supraorbital and the nasomental responses (true reflexes) were absent. Striking the *right* supraorbital nerve, however, caused contraction of both orbicularis muscles.¹

A woman, aged forty years, had a total paralysis of the left seventh nerve; the fifth and third nerves intact. She could move the lid slightly, but could not close the eye. There was DR. In the fourth month, after the attack, the conditions were practically unchanged. I then was able to obtain on the paralyzed side:

The auriorbital response.

The frontal response.

The external orbital response.

The aurioral response.

The supraorbital, frontoorbital, nasomental responses (true reflexes) were absent. Similar results were obtained in the other cases.

These experiments show that the reactions were not reflex, or myotatic, but were direct and indirect muscular reactions, and depended on the mechanical stimulus to the muscle or its motor nerve. The presence of the responses in old-standing motor paralysis does not show that they are purely muscular, since we know that peripheral nerves regenerate to a certain extent, even when cut off from their nuclear centres.

Thus the face has *normally only one true reflex*—the supraorbital, whose presence was described by McCarthy and confirmed by Sailer.² There is another reflex, but in reality only a part of this supraorbital, viz., the *frontoorbital*, produced by tapping the aponeurosis of the occipitofrontalis, causing a contraction of the lower lid. This supraorbital and frontoorbital reflex is caused by a stimulation of the fibres of the supraorbital nerve, which thereby starts an impulse to pass to the pons, and is thence reflected out on the fibres of the seventh to the orbicularis palpebrarum. This reflex is not brought out by heat or cold or pain or cutaneous irritation, such as scratching or pricking, but only by a blow or mechanical injury to the nerve.

There is another facial reflex found occasionally in children, very rarely in normal adults, and often in the abnormal conditions, viz., the *nasomental*. It is caused by striking the side of the nose near the exit of the nasal branch of the fifth. This causes an elevation of the lip on the same or both sides. I have found this in Basedow's disease.

Melancholia.

Paresis.

Cerebral-spinal lues.

Progressive muscular atrophy.

Paralysis agitans.

In pathological conditions, I have seen in one case of paresis, a skin reflex, the *frontalis skin reflex*. It is caused by scratching the skin above the eyebrow with a pin. This causes a contraction of the frontalis.

In a case of slight dementia following thrombosis of the posterior cerebral, I observed a *supraorbital nasal reflex*. By striking a blow over the supraorbital nerve, a contraction was seen in the levator of the angle of the mouth of the same side.

There are thus one normal and three abnormal facial reflexes.

There are several curious abnormal responses, besides the reflexes just referred to. On striking a blow in front of the ear there is a contraction of the *attollens aurem*, and the ear is elevated. This was seen by one in three cases, one of melancholia, one of paranoia, and one of cerebral lues. It has been observed in 19 per cent. of cases of paresis. In one case of paresis I observed a contraction of the *retrahens aurem*, and the ear was pulled back. In none of these cases could the patient move the ears voluntarily. There is sometimes a double auriorbital response (in dementia and paresis), and in three cases I have observed an elevation of the brow on striking the facial in front of the ear—aurifrontal response.

There is quite a little art required to bring out the responses when they are not markedly present. The best instrument to use is the rubber hammer with a weighted head, and it is better to use the same hammer and accustom one's self to its balance and weight. The blow should be fairly sharp, but not enough to cause pain, and the patient's attention must, as far as possible, be distracted, otherwise the face gets "set," or psychical reflexes interfere with the normal active responses.

In bringing out the reflexes of the lower part of the face, the mouth should be slightly open, the eyes fixed on a point, and the jaws not quite closed. Care must be taken, however, not to mistake the jaw reflex (*masseter contraction*) for that produced by the muscles of the chin and lip. The reflexes are generally bilaterally present; that is, those present on the one side will be found on the other, but this is not invariably the case. Sometimes, after producing a reflex once or twice, the muscle becomes less irritable and the face gets fixed, or the attention becomes concentrated upon it and the response is not produced.

In very fat persons it is less easy to produce the responses and, on the other hand, in persons who are greatly emaciated or greatly wasted by disease they are not very active. They are more active in

¹ Stimulus to the *anasthetic conjunctiva* caused a flow of tears (lacrimal reflex).

² There is the pouting reflex also in the new-born, consisting of a pouting movement made when the lateral part of the upper lip is percussed.

children and less so in old age, but the variations are not extremely great.

The lip reflex, or mouth phenomenon of newborn children, is described by Dr. John Thomson, in the *Review of Neurology and Psychiatry*, for March, 1903. It had been noticed briefly by Loos and Escherich. It is best brought out by a series of gentle taps on the upper lip, a little above the angle of the mouth, or on the lower lip a little below it. It can be brought out, also, by tapping on Chvostek's point, and even by making a gentle tap on the mucous membrane of the lips. An ear speculum, in the small end of which a piece of rubber has been inserted, acts very well also as a hammer.

Finally, I have observed myoid tumors of the frontalis on striking the muscle a sharp blow. This was observed in three cases: two of cerebral lues and one of melancholia.

The general facial response, or facial phenomenon of Chvostek, observed in tetany, is not uncommon in paresis and in allied states of great psychical or toxic irritability.

I would not overestimate the clinical value of a study of the facial irritability. McCarthy thinks that the supraorbital reflex may help to tell the existence of facial paralysis in states of unconsciousness.

I would say that when the facial responses are all or nearly all present, especially when the nasomental reflex and the aural responses are present, it is an indication of a morbid state, and usually indicates a psychic or cortical, rather than a peripheral, condition. Thus, in a case of very active blepharospasm, in a woman aged sixty-five years, the facial reflexes were diminished; and in chorea they are not increased. Even in the nervousness of toxic states, like alcoholism, they are not always affected, while in the insanities and in the mild types of mental excitement or depression, they are much increased.

As to the clinical significance of the facial responses, I cannot say that I am able, as yet, to draw positive conclusions. It is certain that the abnormal responses are more numerous in the psychoses, especially in paresis and in melancholia with agitation. They are seen also in motor neuroses accompanied with tremulousness, such as Basedow's disease and paralysis agitans.

They are much diminished or lost on the affected side in hemiplegia, and may be of use in determining the existence of that state in profound coma.

The facial irritability was not increased in two cases of facial tic with blepharospasm, nor is it increased, so far as I have observed, in chorea. I have not found it much increased in the nervousness of alcoholism, or neurasthenia.

In coma from organic brain disease I found the responses lessened, while in the stupor of the psychoses they are exaggerated, so far as my observations go.

The *nasomental reflex* has particularly interested me, because it is so uniformly seen in paresis, and is rarely, if ever, found, in healthy adults, though it is found in cases of cerebral lues, in which paresis cannot be made out.

I should consider as particularly indicating excessive facial irritability the presence of a general facial response (Chvostek's symptom) the nasomental reflex, the attollens response, the aurifrontal response, the supraorbital oral reflex, a very active and widespread area on the frontal and temporal region from which the frontoorbital reflex can be elicited, bilateral responses, that is a contraction of symmetrical muscles from a blow on one side.

The following is a summary of what I have tried here to present:

1. A list of normal facial responses.
2. A list of responses found in pathological conditions.
3. A demonstration that most of these responses are direct or indirect muscular reactions, not myotatic, and not reflex.
4. That the only normal reflexes of the face are the supraorbital and frontoorbital.
5. The description of a new reflex rarely found in normal faces, the nasomental.
6. The occasional presence of a frontal skin reflex.
7. Some clinical observations as to the significance of the abnormal responses.

♦♦♦♦♦
The Proposed Municipal Sanatorium.—Homer Folks, of the Department of Public Charities, has submitted to Mayor Low, as chairman of the Board of Estimate and Apportionment, his recommendations regarding the municipal sanatorium. He states that plenty of eligible sites from 600 to 1,000 feet above the sea level are to be found within 50 miles of the city. Once a site is approved by the New York Board of Health, it will become necessary to secure the consent of the local town board, the County Board of Supervisors, the State Board of Health and the local Board of Health. The proposed hospital should accommodate about 500 patients and be surrounded by at least 250 acres of land. Some one should at once be delegated to choose a site and get the consent of the various boards and councils. Wooden tent cottages are recommended, that will cost about \$120 apiece. The total cost of running the hospital will be about \$182,000 a year, but this sum could be reduced, if it were possible to carry on dairying, poultry raising, and the cultivation of fruits and vegetables. The Board of Aldermen is thought to be in favor of the new hospital.

THE CORRECTION OF DEFORMITY AT THE HIP, THE RESULT OF DISEASE; A STUDY OF THE BEST METHODS AND BEST POSITIONS.*

By VIRGIL P. GIBNEY, M.D.,

NEW YORK

When Mr. Gant, the English surgeon, advocated subtrochanteric osteotomy for the correction of deformity resulting from hip disease, this operation was regarded as a distinct improvement over that advocated by the late Mr. Adams, namely, osteotomy through the femoral neck. For some years orthopædic surgeons have been operating after Gant's method, and papers with elaborately compiled statistics have been presented from time to time to the American Orthopædic Association. While some of our fellows have not been fully satisfied with the results of the operation, I think that it might be safe to say that the majority have looked upon this simple subcutaneous osteotomy about the level of the trochanter minor as the safest procedure extant for the correction of deformity at the hip. It is certainly within the experience of the writer of this paper to have encountered disastrous results from either the subcutaneous or the open operations through the joint, and while a faulty technique may be the cause of some of the results, he, at least, prefers the Gant operation.

During the month of December, 1902, Professor Lorenz, in a paper read before the Orthopædic Section of the Academy of Medicine, advocated the "centric" correction of deformities of the hip, and he was so positive in his assertion that this was far preferable to the "excentric," that it has occurred to the writer that a discussion would not be inopportune or out of order. Hence this paper.

It is not intended to present an array of statistics, but to discuss the question from a clinical standpoint.

CASE.—A girl, L. G., nine years of age, was admitted to the Hospital for Ruptured and Crippled on February 24th of the present year. She had been under treatment in the Out-patient Department for a long time and had previously been under treatment in the Post-Graduate Hospital. Suffice it to say that a year before her admission to our hospital, the disease was regarded as fully arrested, and the little deformity was considered as of no consequence. Shortly before her admission she began to walk poorly, and we found the hip pretty well locked and that movements excited a little spasm. It was thought, however, that the ankylosis was fibrous, and in view of the

absence of any symptoms about the hip, she was, on March 3rd, anæsthetized and subjected to forcible correction of the deformity by manual force. The joint was not moved, as in *brisement forcé*, but the pelvis was steadied and the limb pulled down into a good position and the usual plaster of Paris bandage was applied for maintaining the correction. She rested poorly that night, and we were obliged to keep her in bed for about four weeks, on account of a daily temperature and pain on handling. The plaster was removed on April 2nd and the parts were found to be quite sensitive, yet there were no signs of abscess. She had lost flesh. Traction was employed temporarily, but on the 6th, there was just enough tension above the trochanter major to suggest an aspiration, which was made with the large needle with negative results. The high temperature continued, ranging from 99° F. to 104° F. until the 20th, during which interval she had a good many night cries. Under an anæsthetic, on this date, an incision was made into the joint just above the trochanter, when some thickened pus and diseased bone were removed with a curette. The joint was pretty thoroughly emptied and the wound closed with catgut without drain, and plaster of Paris was applied. Her improvement dated from that operation. She has not had any night cries since, the temperature has fallen to normal, and on April 30th the report is that her condition is all that can be desired.

Now this case is at least suggestive of damage done to tissue undergoing repair and the lighting up of the old inflammatory process, and it would seem that the operation for the relief of the joint tension was opportune. Taking into account the extremely sensitive condition induced by the forcible correction and the persistence of the temperature, it is fair to assume that an abscess with extensive suppuration would have resulted; and all this is traceable to the bloodless operation resorted to at the time of her admission.

On the other hand, there are cases innumerable where the same amount of force has been employed, the same correction secured, without any untoward symptoms. But the case I have cited is not a solitary one, and at the hospital we have long since learned that it is unsafe to resort to forcible correction where sinuses lead to the joint, no matter how long-standing these may be. Indeed we hesitate to do a subtrochanteric osteotomy for fear that the osteotome may invade a focus of disease more or less active.

One is ready to admit that a longer limb can be secured by the "centric" correction, but one must also admit that it is exceedingly difficult to determine when a joint is ready for the employment of force enough to correct fully. Even if the forcible correction at the joint is always devoid of risk, the pathological dislocation and the destruction of the head and neck preclude the

* Read before the American Orthopædic Association, at Washington, D. C., May, 1903.

possibility of a limb as long as its fellow, and it may be asserted that the little difference in favor of a lengthened limb is hardly a good enough reason to make this an operation preferable to the osteotomy below the joint. Certain it is, that many of the most satisfactory results, so far as improving the length of the limb is concerned, have been accomplished by subtrochanteric osteotomy. It is the experience of many who have collected statistics from the Hospital for Ruptured and Crippled to find a certain number of relapses after subtrochanteric osteotomy. It is also the experience of these gentlemen that relapses occur just about as frequently after forcible correction through the joint. It may be that our retention apparatus has not been sufficiently long employed, and the results obtained by Professor Lorenz may be due to prolonged use of plaster of Paris after the operation. It has long since been our conviction at the hospital that the plaster of Paris was not used long enough, and within the past two or three years it has been our custom to maintain this correction over long periods of time, say, from three to six months.

The following case is one where relapses have occurred after osteotomies below the trochanter:

CASE II.—A boy, now fifteen years of age, was admitted to the hospital, in October, 1897, for the correction of deformity after hip disease. A day or two later the deformity was corrected by division of the adductors and the tensor vaginæ femoris and forcible correction. Plaster of Paris was employed, and on October 26th it was found on removing the plaster that the deformity was not fully corrected, so another attempt was made under an anæsthetic. On November 10th, same year, the deformity had recurred in spite of the plaster of Paris, and the hip was stretched under ether, so that 180° was measured before the plaster was applied. On November 20th, on removing the plaster, the best that could be had was 165° . In January, 1898, the deformity had increased while wearing a hip splint with thoracic attachment, and the best that could be had was 145° . So, on the 12th, an osteotomy through the trochanter minor, subcutaneously, was performed, the deformity being fully corrected. Plaster of Paris was employed, and on the following day, he developed measles and was taken to the Reception Hospital. On his return, at the end of a week or ten days, it was noted that the deformity was still 155° in extension. On August 4th, 1898, his angle of deformity was still 155° and he had suffered no inconvenience from any of the stretchings or operations. On January 7th, 1899, an attempt was made to correct the deformity without an osteotomy, an angle of 175° being obtained. The plaster was removed on January 28th and a brace applied, 165° being the record at this time. He went into the country, and on May 3rd, he returned with two discharging sinuses, these having occurred in old cicatrices. At this

time his angle of deformity was 160° . By July 26th, 1899, it had reached 150° . He was discharged finally from the hospital on November 15th, 1899, the sinuses having closed, and he was walking very well on a high shoe, but the limb was in deformity. He was readmitted May 31st, 1901, his angle of deformity being 150° again. There was marked lordosis and the trochanter was above Nélaton's line. On June 4th he had another osteotomy, Gant's, and he was kept in plaster until July 15th. On July 20th measurements showed that his limb was down to 180° . The plaster was not continued, but he wore a brace, and on November 20th, the best that could be obtained was 145° . There had been no acute symptoms of any kind and he was walking without apparatus. On November 26th the limb was stretched again under ether and the adductors divided subcutaneously, and on May 10th, 1902, his angle was 150° . He was discharged from the hospital again, and on April 14th, 1903, he was readmitted, and in a few days thereafter, the deformity being quite as marked as ever, a cuneiform osteotomy was done through the trochanter and what remained of the head and neck. The base of the wedge was $1\frac{1}{2}$ inch, and when the limb was brought quite straight, the cut surfaces of bone came in apposition. This patient, it will be seen, had about five or six stretchings under ether, two Gant's osteotomies, and one cuneiform osteotomy, the last, and it is proposed to keep him in plaster for several months.

It has been suggested that if disease does occur after forcible correction the symptoms are of slight import, and that fixation in a well-fitting plaster of Paris bandage is sufficient to guard against any serious relapse. The case already reported in this paper is one that fails to substantiate this argument. Again, a great many surgeons believe that tuberculous meningitis is directly induced by the forcible breaking-up of an old tuberculous focus about which repair has already been established, and statistics are inadequate to convince surgeons that such is not the case. Our own studies at the hospital, based upon numerous tables of statistics, have failed to show that there is any direct relationship between forcible correction and tuberculous meningitis. The cases that are sometimes adduced as evidence are those in which the second stage of tuberculous meningitis has developed too soon after the operation, or where the first stage has developed too long after the operation. Still a certain amount of respect must be paid to the old adage, "It is a risky thing to disturb a sleeping dog."

The subcutaneous operation so favored by orthopædic surgeons has been so bitterly assailed by general surgeons that it may be well for us to discuss the relative merits of the open and the subcutaneous operations. So simple an operation as subcutaneous Achillotomy, done for so many

years by orthopædic surgeons the world over, has been condemned by the general surgeon because, forsooth, a small vessel has been occasionally injured, and timid operators in this specialty have gone so far as to admit that the tendo Achillis should be divided by the open method. If the impetus given to bloodless surgery is to be productive of any good results, let us continue to resort to the subcutaneous division of tendons. There are a few orthopædic surgeons who assert that the tenotome is a valuable adjunct to our armamentarium.

If one does an osteotomy, it should, in the judgment of the writer, be a subcutaneous one, because the osteotome is just as tractable in the hands of a skilful operator as the tenotome. It serves as a probe or guide, often, and one can tell whether he is in compact bony tissue or in spongy tissue. The instrument can be so directed as to avoid wounding anything more than the periosteum, and the little hæmorrhage that takes place is of no account whatever.

The conviction has grown upon me that the position must be maintained for many months in a closely fitting plaster of Paris bandage. It is in evidence that recurrences have been due to short periods in plaster of Paris. When it is necessary to remove the plaster, then apply a closely fitting splint, like the Thomas, for several months afterwards. In some instances, an aluminum corset with a steel spring extending over the hip previously deformed, down the thigh acting as a lever, should take the place of the Thomas splint, but the principle is the same.

The question is often raised whether to have an ankylosed limb perfectly straight or slightly flexed. From my own experience in the management of these deformities, I am convinced that the limb should be left as nearly straight as is possible. A certain amount of flexion will take place, but if very slight, the patient certainly walks a great deal better and is in less danger of developing a painful hip in after years. Many cases of neuralgia of the limb or pain on walking have come under my observation, and I have been able to relieve them by correcting the deformity. There are undoubtedly many patients who prefer a slight flexion, so that they may sit more comfortably, but these belong to the younger class. It is the opinion, therefore, of the writer of this paper that ability to sit comfortably should be sacrificed to the ability to stand and walk erect.

The Minnesota State Board of Medical Examiners held its regular meeting June 19, 1903. Out of 129 candidates, 111 passed and 18 failed.

RETRODISPLACEMENTS OF THE UTERUS AND THEIR TREATMENT.*

By J. M. BALDY, M.D.,

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There was a time when ascites was described as a disease, and was generally accepted as such. Now we all know it to be but the *indication* of some disease or other (such as disease of the liver, heart, kidney, peritonæum, or other organs), and he would be a bold man who would venture to describe ascites as a distinct disease.

So it is with retrodisplacements of the uterus. Gynæcology roved in the uncertainties of development for many a long year, and although we are now almost at the finish, we still have a few legacies of the "dark ages." Retrodisplacements are notably one of these legacies. But the time will come when men will be just as much ashamed to speak and write of them as a distinct disease, as they are at present so to speak of ascites.

All rules have exceptions which in no way vitiate the truth of the rule; and so it is with retrodisplacements. There are a few cases where it seems as though the displacement was the only thing which would explain the symptoms, and in which a replacement of the womb cures the patient. These cases are the great exception, however, and in no way shake our faith in the rule. In fact, many of these apparent exceptions have other possible, if far-fetched, explanations.

The rule is this: Retrodisplacements of the uterus are mostly coincident with other lesions, and where such is the case the symptoms almost universally come from the associated disease.

Any number of cases of displacement are reported and volumes are written on the subject—men continually tell me of innumerable cases they have in their practice, etc.—but, to be perfectly frank, the fault is not with the condition, but mostly with the lack of accuracy in diagnosis of the practitioner. I say this in a spirit of charity, not of wanton criticism; it is true in either case. When a practitioner of medicine has a case of retrodisplacement of the uterus, together with a prolapse of the ovaries, which ovaries are possibly adherent or at least cirrhotic, and he only sees the displacement of the womb and believes that this creates the symptoms, why should he complain if I suggest that his diagnostic powers are a bit undeveloped; and this in spite of the fact that a replacement of the pelvic organs by a pessary or an operation may have relieved the symptoms. He has simply stumbled on a cure in that individual case without a true appreciation of the patholog-

*Read before the Asbury Park meeting of the New Jersey State Medical Society, Wednesday, June 24, 1903.

ical condition present: but where he has stumbled upon a cure in this one case he will probably fail even to obtain relief in the next half dozen or so.

The most common disease with which displacements of the uterus are associated (and in fact which often causes the displacement) is inflammatory disease of the pelvis. Child-bearing, neoplasms, and traumatism cause the greater part of the remainder.

A retrodisplacement of the uterus, even with prolapse of the ovaries, may exist for years without producing a symptom disagreeable to the woman. Eventually, it is true, many of them give rise to troubles. Given a young woman with such a condition, free from symptoms for years (and this often occurs), matrimony intervenes, and within three months to a year sexual life causes irritation sufficient to those ovaries to send the woman to a doctor—mark you, I say, *ovaries*, not uterus. If the ovaries were out of the way and uninvolved, the uterus itself would give little or no trouble. Even when the fundus becomes tender, as is so often the case, it is almost always due to the reflex irritation from the tender ovaries or to the direct adhesions of the fundus itself. A displaced uterus which even in a married woman is giving no trouble will, if a puerperal septic attack or a gonorrhœal infection supervenes, become at once troublesome. More so is this true than it is of a set of organs in an upright position. But who will venture to contend that in any of these cases it is the displaced uterus which is the disease, and not the new factor which has entered into the case.

The more I see of gynæcological practice, the fewer unexplained cases of apparent trouble from retrodisplacements come under observation, and the more am I inclined to limit the list of exceptions. In too many cases where, at my examination, even with the patient under the influence of an anæsthetic, I have thought that I had a simple case of displacement with no complication, have I found myself mistaken at a subsequent operation in which the abdomen was opened and the parts directly inspected, to allow me to place too much reliance on other men's diagnosis as regards adhesions and minute lesions of the appendages when they have no subsequent opportunity of seeing in that pelvis.

"The treatment of retrodisplacements" is, then, a misnomer; it should be "the treatment of conditions in which retrodisplacements occur as an incident." In most of these cases the displacement of the womb itself can be ignored and the result will be perfectly satisfactory, as years of abdominal surgery have taught. A discussion of these conditions would mean

a discussion of the treatment of almost all the pelvic ailments of women. Suffice it to say that each disease found, whether as the result of puerperal septicæmia, gonorrhœal infection, cirrhotic disease of the appendages, neoplasms, adhesions, or anything else, is to be treated on the proper line of treatment for that disease, whichever may obtain.

In those few cases in which no disease can be found, and again in those cases where the disease found has been dealt with by the appropriate treatment and it is in addition considered desirable to bring a retrodisplaced fundus forward (for instance, where the peritonæum of the pelvic walls back of the womb and broad ligaments is denuded and bleeding and where adhesions between them and the fundus would occur if they were allowed to come again into contact, or where it is desirable to draw up prolapsed ovaries, etc.), there is a choice of methods to which I may be permitted to call your attention.

Some of us have seen the day in which the clamp was used in the treatment of the stump in the removal of ovarian tumors; the ligature took its place and the clamp passed into history as a necessary and interesting step in the development of the completed and simple operation of today. The same thing took place in the evolution of hysterectomy for fibroid tumors of the womb and other conditions. The same transition is now taking place in the surgical treatment of cases complicated with retrodisplacements of the uterus. A short while yet, and Alexander's operation, hysterorrhaphy, ventrosuspension, and similar operations will have become history. The results of some of these are primarily uncertain and the operations must be done in the uncertainty of diagnosis, notably in Alexander's operation. In the remainder of these, subsequent complications and distocias in future pregnancies have been so many and serious that men, in even increasing numbers, have been driven to search for something which would prove a safe and final substitute. This has, I believe, been found in intra-abdominal operations on the round ligament. Theoretically, these operations fulfil all the indications desired. They open the way to a thorough inspection of the parts and to an intelligent application of the proper treatment to any complication existing. They do not weaken any of the already weak canals of the body (e.g., the inguinal canals). There is no chance of failure of the operation (such as tearing the ligaments or failing to bring them out, as happens in the best of hands with Alexander's operation). They cause no unnatural attachment and no adhesions which can possibly give subsequent trouble. They do not draw

the uterus up into the abdomen, but leave it a pelvic organ. They bring the womb into a perfect anterior position, hold it there accurately and with certainty, and at the same time leave it freely movable. The only objection I can see which can be advanced against them is the danger of opening the abdomen. With any one who sees this as a serious danger or objection under the circumstances I do not care to discuss the subject: I simply have no faith in his surgical judgment and skill.

The number of this class of operations all based on the same principle but differing in details is large. Many of them are good, but some are more simple than others. The one I practise myself is as follows:

When the abdomen is opened adhesions if any freed and the uterus brought forward a forceps is forced through the broad ligaments on each side of the uterus at a point near the uterus. The forceps penetrates from the posterior surface of the broad ligament and comes out on the anterior or bladder surface, just under the round ligament, half an inch from its uterine attachment. The round ligaments are now pushed into the bite of the forceps and the forceps is drawn back bringing the round ligament with it through the holes. The ligaments are then brought together forming a loop behind the uterus. A silk stitch now binds the round ligaments together and the forceps is removed. The uterus is now held well forward by the finger of the assistant, while the operator forces the round ligament (with a tissue forceps) as low on the posterior part of the uterus as he desires, and stitches it to the peritonæum of the uterus at this point with fine silk. This is about at the internal os or lower. The result is a sling back of and around the uterus which holds it in perfect position leaves it movable and does not lift it out of the pelvis. In addition this procedure does what none of the other operations of any kind does: it twists the tops of the broad ligament forward in such a way as to lift the prolapsed ovaries up even as high as the ilio-pectineal line, giving them perfect suspension without interfering with the calibre of the Fallopian tubes.

If the round ligaments are too short to be brought back in this way (they come back doubled on themselves) I cut them off near their uterine attachment and after tying the blood vessels bring the free ends back and attach them as a loop or if still too short for this I stitch the end of each round ligament on to the posterior surface of the uterus at such a point as to give the support desired.

The question of the use of pessaries I shall not discuss: their utility is so limited and, even where

they do apparent good, it is so questionable that their employment is almost time wasted. This I will say, that in the vast majority of cases in which they will relieve unpleasant symptoms a tampon will do quite as well and is much safer. The two classes of cases in which relief is experienced by their use are chronic pelvic inflammatory troubles (where they are a positive element of danger), and cases of retrodisplacement with prolapse and disease of the ovaries. A few of these cases are relieved through the use of a pessary by lifting up the vaginal vault and relieving the general weight and drag. The great majority of even this class of cases will not tolerate the presence of the instrument, so painful is it. In my experience, the vast majority of women who come to me for consultation in whose vagina I find a pessary have perfectly normal pelvic organs in such condition and position as to make it perfectly plain that they never had been misplaced. These women are usually suffering from gastrointestinal disturbances or neurasthenia or from both. This state of affairs is the result of the teaching of the past: is it not time that those of you who know better should take an emphatic and unequivocal stand in the matter? Balance all possible good from the use of pessaries with the harm done by them and there can be no question but that it would be better for women if the profession could forget there was such a thing as a pessary.

ŒDEMA OF THE GLOTTIS

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WITH NOTES

By JOHN H. JOPSON, M.D.

The following case seems worthy of record:

On November 2, 1902, I was called to see six children in one family who were ill with scarlatina. The epidemic began on October 25th in one child, followed on the 27th by the second, Charles O., aged five years, and on November 2d by the remaining four. All the cases ran a more or less typical course, and, excepting Charles, all the patients recovered without complications or sequelæ.

The family history was negative, except for a doubtful healed tuberculosis of the lungs in the father, which I was unable to verify.

Two and a half years previously Charles had first exhibited slight lameness with spasticity, which proved to be due to Pott's disease of the lower dorsal and upper lumbar vertebræ. At the time of this illness the kyphosis was well marked, and there was marked atrophy in both legs, with partial flexion of the thighs upon the pelvis, but without evidence of involvement of the hip joints. The child had been

in bed during the greater part of these two years and a half and his general nutrition was poor. On October 27th his scarlatina began with vomiting, high fever and sore throat. The rash must have been slight, for when I saw him the desquamation was fine and almost imperceptible.

On November 2d I found a small patch of yellow membrane on the left tonsil, which was tightly adherent and remained unchanged until November 5th, when it rapidly disappeared. As there was nothing to suggest Klebs-Löffler infection, I did not make a culture. On November 5th he developed a right-sided cervical adenitis which rapidly suppurated. This was opened on November 9th; it contained about 10 c.c. of yellow mucus. The glandular swelling in the rest of the chain did not at once subside, while the glands on the left side soon became inflamed and were subsequently opened (December 10th). Several examinations of the urine during and after this time were entirely negative.

On November 11th, six days after the disappearance of the membrane from the tonsil, and while convalescence from the scarlatina was progressing favorably, the child developed a laryngeal cough, with slight difficulty in articulation. The cervical glands at this time were decidedly enlarged and tender; the left submaxillary was especially involved, but had not yet suppurated. At 10 p.m. on that evening I found the child with distinct obstructive dyspnoea; this had begun three hours before and was increasing, according to the mother's account. There were snoring, high pitched and rapid respiration, with marked recession at the base of the chest in the intercostal spaces and in the suprasternal notch. The sternomastoids were especially prominent, owing in part to the emaciation. There was slight cyanosis, and the facial expression was characteristically distressed. There were certain points, however, to be noted in the character of the breathing. First, there was a distinct snoring quality to the inspiration; secondly, there was little cough, and thirdly, the voice was clear, although articulation was accomplished only by great effort. The pulse rate was 120, the volume and tension were good. The temperature was normal.

While waiting for my consultant, Dr. Jopson, I injected 1500 units of antitoxine and made a culture from the throat, which afterward proved negative.

NOTES BY DR. JOPSON.

When I first saw the child his condition was very serious. He was semicomatose and suffering from marked respiratory obstruction. There was much retraction at the base of the chest anteriorly, and the breathing was noisy and snoring in character. The face was pale, the lips still of good color, the pulse fair. The glands on both sides of the neck were enlarged. An abscess had been opened on the right side a few days before. There was much submaxillary enlargement on the left side. Visual examination of the throat was unsatisfactory. The right tonsil was large and ulcerated, but no membrane could be seen. The voice was preserved. Digital examination showed obscuring of the landmarks—the epiglottis, arytenoids, and the opening of the larynx—by œdema, more marked on the left side

and extending to the left half arch. We decided to try the introduction of an intubation tube as a means of relieving the dyspnoea. Intubation was very difficult, the œdematous tissues to the left of the laryngeal opening overhanging it, so that the tube had to be introduced obliquely. The only relief that the tube gave was to permit of the expectoration through it of a large quantity of mucopurulent material which had collected in the trachea. The œdematous tissue occluded the opening of the tube so much that, after allowing it to remain half an hour, it was removed. We now thought that tracheotomy would soon be required, but permission for this was refused. A croup tent was extemporized and steam medicated with glycerin and sodium carbonate was introduced beneath it. Hot poultices were applied to the neck, as the œdema was evidently secondary to glandular enlargement. After an hour or two the child's condition improved, although he was still somewhat restless, and the recession at the base of the chest was still well marked.

Remarks.—In obstruction to respiration due to membranous laryngitis of diphtheritic origin, the loss of voice and croupy cough are among the earliest symptoms. These were absent in this case, and, while the breathing was noisy, there was a snoring element, probably due to involvement of the soft palate, which is not present in the ordinary case of diphtheritic croup. The absence of membrane on the tonsil was not of great significance, as we often see a primary, or even secondary, involvement of the vocal cords, in which the throat is clear of membrane. Digital examination revealed at once the œdema of the fauces, epiglottis and arytenoepiglottidean folds, especially the left one. The introduction of the tube, while it was of some benefit, enabling the patient to clear the trachea of accumulated secretion by coughing soon after its introduction, afforded no permanent relief. Nor, indeed, can we expect it in œdema of the glottis combined with involvement of the superior aperture of the larynx and epiglottis. The swollen tissues overlaid the mouth of the tube and occluded it during the inspiratory effort. In such cases tracheotomy is the operation of choice, although, if the emergency is not great and there is an element of doubt as to the diagnosis, there is no special harm in trying the effect of an intubation tube, provided the operator has had training in this line. It is unsafe, however, to trust to it, and in any case, if the symptoms are urgent, tracheotomy is the operation demanded. The use of steam may be of great benefit, as I believe it was in this case, and scarification may be of use when there is time for it, although it is not easy in a struggling child.

At 8.30 a.m. on the following day (November 12th) the child was awake and breathing more easily. The inspiration was still noisy and high-pitched, and there was slight recession at the base of the chest. The voice was clear. At 12 noon the

child was asleep, the snoring was marked, but the obstructive signs were less. From this time on there was no repetition of the dyspnoea, although the snoring quality of the inspiration was noted during sleep until November 25th. The voice was somewhat husky at times and there was constant hypersecretion in the pharynx and larynx until November 21st. At this time insufflation of iodoform was begun, with disappearance of all symptoms by the 25th, as before mentioned.

The after course of the case involved only the adenitis and Pott's disease.

The nosology of œdematous affections of the glottis and larynx is unsatisfactory, partly owing to diversity of opinions of the authors proposing the nomenclature and but partly due to the fact that continuity of structure plays such an important part in all inflammatory affections of this area. Exact classification is at times very difficult.

Œdema of the glottis and acute œdematous laryngitis are hopelessly confused in most of the earlier text books. The later writers recognize two main classifications, the pathologicoclinical and the anatomical. The clinical nosology recognizes, in the main, an acute phlegmonous inflammation with all that the name implies, including secondary œdema, and a simple œdema without inflammatory symptoms. The anatomical nosology refers to the area of the larynx which is affected, and its use is restricted to the acute laryngitides of children.

William E. Hopkins (5) distinguishes two main clinical varieties, acute phlegmonous laryngitis and simple œdematous laryngitis. The first is markedly inflammatory and is accompanied by fever; it is caused by severe phlegmonous inflammation in neighboring structures, such as quinsy, postpharyngeal abscess, etc., and is also secondary to, or a complication of, general infections, such as typhoid fever, variola, and especially erysipelas.

Simple œdematous laryngitis is caused by some morbid change in the kidneys, heart or liver; by obstruction to the circulation; by vasomotor paresis, or by any general or local condition which tends to produce dropsical effusion. It is unaccompanied by fever (*per se*) or marked inflammatory phenomena.

Bosworth (23) classifies a "phlegmonous laryngitis" and a "symptomatic œdema," the latter term being used to designate those cases which are passive and noninflammatory. In these the onset is always sudden and the most common cause is renal disease. In this connection Bosworth notes the hereditary tendency to angeioneurotic œdema affecting the larynx. Hopkins and Bosworth make a further classification of acute catarrhal laryngitides in children, into acute supraglottic laryngitis and acute subglottic laryngitis, or false croup, spasmodic laryngitis, Millar's asthma, etc. Bosworth asserts that the former is usually trivial and as a distin-

guishing point from the subglottic affection, that the voice is hoarse, but that complete aphonia is rare.

Posey and Wright (30) consider a laryngitis epiglottidea and a laryngitis hypoglottica.

Price Brown's classification (22) is even more simple and, therefore, possesses some advantages. He describes: 1. An acute œdematous laryngitis, an acute inflammatory affection which may be due to cold, traumatism, the effect of general infections, erysipelas and, very rarely, the exanthemata. 2. Simple œdema of the larynx, due to the cachexia of Bright's disease, syphilis, carcinoma, tuberculosis, or to some obstruction of the circulation. Angeioneurotic œdema could be included under this head.

Baginsky (27) describes a laryngitis erysipelatosæ sive phlegmonosæ (œdema glottidis), under which heading he includes all possible causes, particularly erysipelas on the one hand and acute nephritis on the other. All authorities are agreed as to the rarity of œdema glottidis, with or without inflammation, whether primary or secondary. In evidence of this the following data are interesting proof:

Dundas Grant (4) in the *Brooklyn Medical Journal*, October, 1891, gave statistics of 1008 cases of scarlatina. In 69 of these there occurred a primary pyrexial adenitis, of which 17 cases resulted in suppuration. Œdema of the glottis was not observed in any case of this large series.

Clarence C. Rice (10), in the *New York Medical Journal*, July 2, 1898, presented a series of 41 cases of œdema of the glottis, which represented a careful search of the literature up to that time.

Of these 41 cases 14 were caused by catarrhal inflammation alone; two were due to acute catarrh, plus an existing nephritis; one to acute catarrh in an alcoholic; one to acute catarrh in a tuberculous patient, and two to the acute catarrhal inflammation of influenza. Five were traumatic; four were due to syphilis; one was due to Bright's disease, and one was due to tuberculosis. Two occurred in pyæmia and septicæmia; one in variola. One was secondary to retropharyngeal abscess; one to amygdalitis; one to phlegmonous polyadenitis and one to an enlarged thyreoid. One was due to angeioneurotic œdema; one was "unsuspected," and in one the cause was "unknown."

Allowing for mistakes in diagnosis, it will still be seen that the simple acute catarrhal process was the greatest ætiological factor in this series.

In contradistinction to this conclusion are the figures presented by Jacob D. Arnold (7) in Burnett's System. He quotes Von Hoffman's series of 34 cases of acute œdema of the larynx among 6062 autopsies at the Berlin Charité. Of these 34 cases, 9 occurred in heart disease, 8 in kidney disease, 5 in phthisis pulmonalis, 3 in tuberculous abscess

of the neck, 4 in ulceration of the larynx, 2 in septicaemia, 1 in syphilis, 1 in diphtheria and 1 as a result of traumatism.

The majority of these cases were found in cachectic conditions. The difference between these and Rice's results can probably be accounted for by the fact that Rice's series are clinical reports of cases in many of which recovery occurred. Von Hoffman's results are from post mortem findings, and a terminal œdema glottidis in the course of a chronic cachectic disease is much less likely to find its way into literature.

In Arnold's opinion sudden œdema is the only element of danger in an acute laryngitis, which is well substantiated by Rice's series.

Kyle (6) mentions an interesting case of œdema glottidis due to the local use of silver nitrate solution in treating the throat.

Solomon Solis Cohen (26) has described an acute œdema of the uvula, palate, pharynx and epiglottis following the excessive use of adrenalin solution preserved with chloretone.

Among the traumatic causes in Rice's series one case in a child was due to swallowing raw brandy; one was due to choking on a piece of bread, and one was due to carbolic acid.

Rufus P. Lincoln, in Burnett's *System*, describes the pharyngeal and laryngeal affections in the acute infectious diseases. He calls attention to the fact that laryngeal affections are much more frequent in measles than in scarlatina, the latter disease more often affecting the pharynx. Ulceration of the larynx in rubeola may cause œdema; in scarlatina it may occur after all active symptoms have subsided; it may then be dependent on debility or on the renal complication, which so often exists. In severe cases of variola, œdema glottidis may occur at any time and it constitutes one of the distinct dangers of the disease. In typhoid fever extreme grades of catarrhal laryngitis are not infrequent and even ulceration occurs, but œdema is rare.

In typhus fever laryngeal complications are rare, as they are in relapsing fever, cerebrospinal meningitis and yellow fever. Primary phlegmonous laryngitis is considered by some authorities to be due invariably to erysipelas. While this view is not universally held, phlegmonous laryngitis is, however, admitted to be a frequent complication of erysipelas. In influenza there is often found a violet red œdematous condition in the fauces and pharynx, which closely resembles erysipelas. Œdema of the larynx may occur during such an attack or as a sequela.

Pilatte, in the *Journal of Laryngology and Rhinology*, August, 1890, reported a case of œdema of the larynx complicating mumps. Among other causes the laryngeal ulcerations of glands have

been reported, and also acute rheumatism of the laryngeal muscles; some doubt exists as to the latter diagnosis. Mackenzie reported a case of inflammation and œdema of the uvula, which was followed by a typical attack of podagra.

In my own case we had the following conditions:

A mild attack of scarlatina with persistence, for nine days, of a membrane which was probably due to a staphylococcus, but with a minimum of local inflammatory symptoms; bilateral adenitis resulting in suppuration, the latter being probably largely due to the child's tuberculous diathesis. These abscesses, it might be said, have resulted in fistulae which show no disposition to heal.

As the membrane had entirely disappeared six days before the œdema occurred, the latter may reasonably be attributed to the adenitis, the predisposition being furnished by the child's strumous and debilitated condition. The actual presence of the glandular swelling aided in causing the obstruction to the laryngeal inlet.

Anatomically the case was an acute supraglottic laryngitis; clinically it can be classed as simple œdematous laryngitis, symptomatic œdema of the larynx, or simple œdema of the larynx.

Before closing, it might be well to make some further comment on the statement that œdema glottidis is a rare affection. This is undoubtedly true if we are careful to include only cases of actual demonstrable œdema, which produce the physical signs of marked laryngeal obstruction over the period of several hours. Severe grades of catarrhal inflammation with tenacious secretion and cases of spasmodic affections can all show at times a high degree of dyspnoea. In this, as in other diseases, border line cases will always be difficult to classify.

In the discussion of the paper at the Philadelphia Pædiatric Society, Dr. D. J. M. Miller mentioned a recent fatal case due to hæmorrhage and œdema in the laryngeal tissues in a case of scurvy.

In a *résumé* of the foregoing data the following conclusions can be drawn:

I. Simple œdema of the larynx usually occurs in cachectic diseases, especially of the heart and kidneys. In these there may be no apparent exciting cause, and the inflammatory symptoms are conspicuous by their absence.

II. Inflammatory œdema of the larynx results from contiguity to other inflamed structures; as a local complication of the acute infections of erysipelas, variola, measles, scarlatina, influenza, etc.; or as a result of severe grades of inflammation in simple acute laryngitis. Bacteriological investigation will probably find that a streptococcus is the most frequent exciting cause.

III. Traumatism to the laryngeal structures may result in œdema, depending on the degree of "in-

sult" to the tissues or to a possible predisposition.

IV. Among rare causes of œdema of the larynx are angeioneurotic disorders and the blood dyscrasias, such as scurvy, purpura, etc.

V. The diagnosis rests on the evidence of palpation and, if possible, visual examination, as well as on the signs of laryngeal obstruction. Membranous laryngitis cannot always be at once excluded.

VI. Prognosis is unfavorable in all cases occurring in the course of chronic cachectic diseases and in severe types of the acute infectious diseases. In no case can it be other than guardedly favorable.

VII. Treatment by intubation rarely affords relief unless the obstruction is infraglottic. Tracheotomy is absolutely demanded in extreme cases. The continuous inhalation of medicated steam is always to be employed; scarification and external depletion by leeches may be tried; cold and heat should be used externally and internally—cold as a prophylactic and heat as a stimulant and absorbent. General stimulating and supportive measures are necessary in all cases.

With the occurrence of œdema of the larynx the time of election for the use of antistreptococcic serum has probably passed. As the infection is usually a mixed one, serum therapy, does not at the present time offer much prospect of relief, and its use must be empirical unless there is opportunity for bacteriological diagnosis from cover glass preparations.

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GASTROPTOSIS.*

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Gastroptosis may be defined as a downward displacement of the stomach, which is often accompanied by descent of the transverse colon, right kidney, and more rarely of the left kidney, liver, or spleen, and is generally attended with more or less disturbance of digestion. This general prolapse of the abdominal viscera was described by Glénard, in 1885, under the name of enteroptosis, and much has since been written on the subject, though it has only received general attention within the past few years. The whole stomach is descended and generally lies transversely, or in a crescent shape, at or below the navel.

ÆTIOLOGY.

Many and varied causes are ascribed for the presence of this condition, but it is probable that all the factors are never active in any one case, and no case is developed solely from any one cause.

A congenital weakness and flabbiness of the tissues is often present, one of the signs of which is the loose, or floating, tenth rib of Stillé. Pleuritic or pericardial effusion, emphysema, congenitally contracted thorax, or downward displacement of the liver tends to displace the stomach by pressure from above.

Gastroptosis frequently develops after exhausting diseases, such as pneumonia, typhoid, or influenza, the patient often dating the beginning of his trouble from such an attack. It is often a complication of the later stages of phthisis, the emaciation, gen-

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eral muscular relaxation, and subnutrition contributing to its development.

The sudden removal of ascitic fluid or large abdominal tumors, or conditions accompanied by rapid loss of flesh, cause a disturbance of the intra-abdominal pressure and of the relations of the organs to each other. One of the frequent causes in women is undoubtedly constriction and weight at the waist line caused by corsets, and the entire weight of the skirts being exerted upon, and just above, the stomach and transverse colon. Too rapid pregnancies and lack of care in the puerperium also induce flabby abdominal walls and relaxed ligamentous supports.

The use of excessive amounts of fluid with meals, causing a dilution of the gastric juice, retarding digestion, putting an excessive burden on the gastric muscle tends, first to gastric atony, and ultimately to descent.

Gastroptosis is a frequent condition in cases of digestive disturbance, Einhorn finding 4 per cent. among men and 36 per cent. among women. It is often found in women who have borne children, and generally becomes manifest in the strenuous period of life. In the practice of Dr. Clarence Johnson, with whom I am associated, I have tabulated 200 consecutive cases of persons applying for treatment with digestive disorders, 115 men and 85 women; and of these, were 38 cases of gastroptosis, nineteen men and nineteen women. Thirty of the thirty-eight had hyperacidity, nine had movable kidneys, and thirty-five were between the ages of twenty-one and fifty years.

SYMPTOMS, ETC.

Gastroptosis may exist without any symptoms whatever, the condition being only discovered on examination for some other purpose. This, however, is not the rule; some of the symptoms being caused by the accompanying digestive disturbance.

The most frequent symptoms are tenderness and dragging pain in the epigastrium just below the ensiform, and a sense of weight and fullness in the umbilical and hypogastric regions, both of which are often relieved in the earlier stages of the disease by assuming the reclining posture. Constipation alternating with occasional diarrhoea is the rule, though any condition of the bowels may exist. Flatulence also is generally present.

Frequent micturition is often complained of, the result of pressure of the descended organs on the bladder and the reflex influence through the abdominal sympathetic nerves.

Strong pulsation of the abdominal aorta in the epigastrium is sometimes present, also extreme and unaccountable weakness in the morning on rising, or after slight effort.

On inspection we find with the patient standing a round protuberance below the navel, the epigastrium being flattened. In very emaciated subjects, however, or those whose abdominal walls are retracted, this protuberance is not present. Pulsation of the aorta and the firm transverse outline of the pancreas can generally be discerned in the epigastrium, on account of the absence of the stomach.

One of the best tests of general enteroptosis is Glénard's "belt sign," which is evoked by having the patient stand; then the observer, while standing behind him, places his hands on the abdomen between the symphysis and the navel, and presses the abdomen upward and backward; the patient generally expressing relief. If the hands are suddenly removed, he complains of considerable pain. A sudden jolt or jar in walking also produces this pain.

A simple and reliable sound is the splashing sound, which may be produced by gently tapping the abdominal walls over the region of the stomach, and is permitted by an atonic condition of the stomach wall, some fluid and air being present in the stomach. If the splashing sound cannot be obtained, the patient may be directed to drink a glass of water, after which the sound may generally be produced. The stomach may be located at or below the navel, or even as low as the symphysis. Proceeding from above downward on the left side, and from left to right, the boundaries of the stomach may often be obtained from the splashing sound.

A possible source of error in this method may be encountered in a patient with very flabby abdominal walls and atonic stomach; the distended intestines being struck the impulse is carried upward to the stomach, and the splashing sound plainly heard.

I have a case in mind also, where the splashing sound was plainly obtained in the left inguinal region over the colon, and questioning elicited the statement that the patient habitually used enemata for his constipation—he had used one an hour or so before the examination and the greater part of the water had remained. A careful examination revealed the greater curvature about one inch below the navel.

In doubtful cases the gastrodiaaphane, or intra-gastric lamp devised by Einhorn, is a valuable aid; the stomach being empty, the patient drinks a glass of water, the lamp is introduced, and the outline of the stomach is shown as a red glow on the abdominal walls.

The method of inflation of the stomach by carbonic acid gas, produced by the successive administration of sodium bicarbonate and tartaric acid, is not devoid of danger, and should be used with great care. Behrend has reported three cases of sudden death following the use of this method in the Phil-

adelphia Hospital. Moreover the amount of the gas produced is not under control, in one case distending too much, in another not enough. Much better is the plan of the inflation of the stomach with air by means of a rubber bulb and the stomach tube, serving to outline accurately the limits of the stomach, which can be seen plainly and may be verified by percussion. The stomach may be found totally descended, the greater curvature being at or below the navel, and the lesser curvature just above the navel, or the cardiac end of the stomach may be *in situ* and the pyloric end descended and dilated or distorted in shape, the axis of the stomach being vertical or subvertical and the entire organ being to the left of the median line.

The position of the stomach may be outlined by inspection, the patient reclining, all light being excluded, except at the foot of the patient. The examiner stands at the shoulder of the patient, brings his eye to the level of the abdomen, and the patient being directed to breathe, faint transverse lines may be seen moving on the abdomen with respiration, indicating the greater and lesser curvatures. In marked prolapse of the stomach, however, the stomach is less affected by respiration.

Webster suggests that, in women who have borne children, relaxation and diastasis of the recti muscles may be tested by having the patient lie flat, placing the finger tips of the right hand at the linea alba, then grasping the patient's hands and asking her to raise her head and chest, thus determining the degree of relaxation. Păcanowski has determined, by the examination of eighty people in health, that the upper border of the stomach is at the fifth intercostal space in the left parasternal line, the greater curvature being generally found in the same line $1\frac{1}{4}$ to $2\frac{1}{2}$ inches above the navel; hence, when the lower boundary is found at or below the navel, it indicates either dilatation from atony, dilatation from pyloric obstruction, or gastroptosis. If the upper part of the epigastrium contains no part of the stomach it is pathognomonic of gastroptosis. The position of the lesser curvature is of greatest importance in these cases, for without this knowledge it is impossible to differentiate enlargements and displacements of the organ.

COMPLICATIONS.

Movable kidney often accompanies the descent of the stomach, Einhorn finding nephroptosis in 70 per cent. among women and $2\frac{1}{2}$ per cent. among men in his cases of abdominal ptosis. The right kidney is generally the movable one, rarely the left. It is easily recognized by grasping the loin of the patient, just below the twelfth rib, between the thumb and fingers, and having the patient inspire; the kidney may then be felt to slip downward be-

tween the thumb and fingers, and if of the third or fourth degree of mobility, can be arrested below the grasp.

When a movable kidney accompanies general ptosis, operations for anchoring are ineffectual to confine it in place, but, fortunately, by means of the proper measures for the correction of general ptosis, the symptoms of nephroptosis are relieved. Extreme nervousness sometimes developing into neurasthenia often accompanies gastroptosis, so often that many consider it the direct result of gastroptosis. A better explanation is that both develop from the same causes, each forming a link in the vicious circle and each punishing and aggravating the other.

We may have as a complication any state of the motor and secretory functions of the stomach, over acidity being the rule. Every patient showing digestive disturbance should be thoroughly investigated, a test meal given, and appropriate treatment instituted. A condition of atony is always to be expected, and genuine dilatation of the stomach is not infrequently seen. The horizontal portion of the duodenum being fixed, the descent of the pylorus causes more or less stenosis at this point and may interfere with the timely emptying of the stomach.

Much difference of opinion exists among authorities as to the ultimate anatomical return of the stomach to its normal position, and although we cannot expect this in all cases, many such do undoubtedly occur. All agree that the symptoms can be relieved, nutrition improved, and the patient restored to usefulness by proper measures.

Whereas phthisis, the intrinsic tendency of which is fatal, endows its victim with hope of recovery even to the last, sufferers from indigestion, though amenable to treatment, always look on the dark side and seem marked for melancholy.

TREATMENT.

Indications for treatment may be divided into (1) Mechanical support for the prolapsed stomach and other viscera; (2) restoration of the lost tone and motor activity to the gastric and abdominal muscles; (3) increased nutrition; (4) treatment of the complication. One of the best forms of mechanical support is an elastic abdominal bandage fitted carefully, so constructed that it exerts its pressure upward and backward on a point midway between the symphysis and navel. The bandage must be held down firmly against the symphysis with perineal straps, otherwise the bandage slips up and fails of its purpose. The use of zinc adhesive plaster strips twelve inches wide, as recommended by Rose, applied to the abdomen so as to serve as a support, commends itself especially in dispensary cases.

where the item of expense is an important one. The plaster can generally be worn between five and six weeks before it is changed. The idea that when a bandage is once worn it becomes a lifelong necessity is fallacious, the patient generally being able to lay it aside in a few months on the return of strength and tone to the ligaments and abdominal walls. The bandage is especially useful in so-called "Landau" cases, where the relaxed and overstretched abdominal muscles allow the abdominal contents to overflow the brim of the pelvis.

Injurious constriction at the waist should be forbidden, and the weight of all skirts transferred to the shoulders by means of a corset waist. Rest in bed for several weeks, as advised by some, is valuable in a severe case bordering on neurasthenia, but ordinarily more is gained by outdoor air and exercise and the avoidance of mental depression caused by enforced confinement to bed.

The patient should be directed to recline with all clothing loosened for at least half an hour after meals.

I wish especially to extol the value of intragastric electricity, for the restoration of tone to the gastric muscle and abdominal walls, and at the same time serving as a general tonic. I have seen cases in which the stomach, resting down on the symphysis, was brought up to its normal position by this means and the aid of the bandage; and after a lapse of two years, long after the bandage had been discarded, examination revealed the stomach still *in situ*.

It is impossible to formulate any fixed line of diet, the character of which must depend largely on the condition of the motor and the secretory functions. As a rule, fried food, condiments, and concentrated sweets should be forbidden. In cases showing marked emaciation it is well to direct a light lunch midway between the regular meals. The total quantity of fluids at a meal should be restricted to a glass or a glass and a half, thereby relieving the stomach of some of its burden and aiding it to empty itself sooner. In addition to the drugs necessitated by the complications, nux vomica, iron, and arsenic are generally indicated.

The patient's habits and mode of life must be carefully supervised, regular hours of sleep, gentle exercise, an abundance of open air, and the avoidance of mental or physical overstrain, should be insisted upon. General massage is of value here, as in all conditions of poor circulation, malnutrition, and nervousness, but localized massage of the abdomen is of doubtful value, and has even been known to produce peritonitis.

Water applied to the abdomen in the form of the Scottish douche is often of value. This provides warm water at 95° F. alternating with cold water

at 55° every few seconds (the application extending over a period of three or four minutes). Gastric lavage is not indicated unless there is catarrh or marked retention of food or fermentation. Aaron has found that, when pregnancy supervenes in a case of marked enteroptosis, the troublesome symptoms disappear as pregnancy advances; and if special attention after delivery is given and a tight fitting bandage applied, the condition is relieved, several of his cases having resulted in complete recovery. The enlarging uterus lifts up the prolapsed organs allowing the overstretched mesenteries to regain their strength, and after delivery, the receding abdominal walls prevent the recurrence of enteroptosis.

Various operations have been suggested for the relief and cure of gastroptosis and enteroptosis: (1) Shortening of the gastrohepatic and gastrophrenic ligaments (Beyea) in cases where the abdominal walls are not relaxed. (2) Splitting the sheath of the recti and suturing them together in the same sheath has been recommended by Webster in those extreme cases of diastasis and separation of the recti following rapid pregnancy. (3) Suspending the stomach in a hammock made by suturing the greater omentum to the anterior abdominal wall. (Coffey).

It is rarely necessary to resort to operation, however, if proper methods of treatment are faithfully persevered in.

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THE FEVER OF DENTITION.*

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It will sometimes be found profitable to take up a homely subject and go over it again. What we have become indifferent to from familiarity may absorb us again when looked at from another standpoint, and this new point of view may be forced upon us by some incident in our practice which has shown us that we are still far from the whole truth.

I have had such an experience in the treatment of dentition, and though warned by one mistake which should have been sufficient, I committed it again with more disastrous results. Several years ago I lanced two infants' gums with bad, and even fatal, results, and I have not lanced a child's gums since.

A large seven months' boy baby was brought to my office with a high fever and the swollen gums of beginning dentition. The pulse was rapid, the child restless and nervous; the gums over the lower incisions were red and swollen. The bowels were reported normal. Ascribing the trouble directly to the teeth, the gums were lanced, and the child immediately went off into violent convulsions (this was at 10 o'clock a. m.) and they were controlled only at 4 p. m.

About a year later I was called to see an infant, a boy aged fifteen months, with a high fever, and a history of pertussis of three weeks' duration. There were loud mucous râles over the entire chest. I could make out no pneumonia. There was slight constipation. The child was very restless and nervous. The gums were much swollen, the first molars and upper and lower canines almost through. I placed the child's head in my lap and lanced the gums freely above and

below, and had hardly done so when the child became suddenly rigid and cyanosed, and stopped breathing. Hot baths and long continued artificial respiration failed to restore the child, and I had to make what explanation I could to a despairing mother.

I reported these two cases in a paper entitled *What Are the Indications for the Gum Lancet?* I have since heard of two similar cases, a death from lancing the gums in a children's clinic in New York, and a case of convulsions following lancing of the gums in our own city.

As to the cause of death in this case, I could only ascribe it to a spasm of the glottis and shock in a very ill child, susceptible to the slightest irritation. The other patient was probably on the verge of convulsions and only needed a slight irritation to start them. Now, the mistake I made was in regarding the swollen gums as the chief source of the trouble, the relief of which would speedily cure the patient, when, in fact, other troubles of a much more serious nature demanded attention, entirely independent of the teeth, or only indirectly connected with dentition. This same mistake, I think, is often made to-day. It is the disorders occurring during dentition which require our attention, while the mouth, but for a mouth wash perhaps, can take care of itself.

A survey of the literature will show that the eruption of the teeth, whether it occurs early or late, is only quite indirectly the cause of the so-called disorders of dentition. And these disorders may be ascribed directly to reflex troubles, or to deleterious influences upon a system rendered unusually susceptible at a period of great physiological activity. As to the fever itself, so frequent during infancy between the sixth month and two years, I do not find much written in a definite way, although I have not by any means exhausted the literature on the subject. As I have some views of my own, I shall state them as briefly as possible.

So far as the mouth alone is concerned, a very large majority of the cases of dentition, no matter how much swollen or how painful the gums may be, are simply cases of physiological congestion of the parts involved. The cases where this congestion passes into a real inflammation are rare, and the cases where this inflammation passes on to suppuration are rarer still. So that, in a very large majority of the cases, there is nothing local in the mouth to cause fever, and if fever exists we should look elsewhere for the cause. Uncomplicated cases of dentition the physician does not see. It is only when fever exists that his services are in demand; but the mother naturally

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looks to the mouth as the seat of the trouble, and the physician, unless he stops and considers, looks to the mouth, too. But the case now ceases to be one of dentition, becoming one of something else occurring during dentition, and far removed from the mouth. How often do we not see cases of aphthous or ulcerative stomatitis without fever! And where this condition exists alone there is no fever. Physiological congestions, wherever they may be, rarely or never cause fever. The physiological congestion of the breasts in beginning lactation, long supposed to cause fever, is now known to have no influence on the temperature above the subfebrile, and that whatever fever may be present can be traced to sepsis or other causes. The same may be said of the menstrual molimen, however painful it may be, or however numerous the reflex symptoms, provided there is no intestinal sepsis.

We are thus naturally justified in looking elsewhere for the fever of dentition than in the local condition in the mouth. Now the commonest disturbance associated with this process is a gastric or intestinal or gastrointestinal one. This will show itself by constipation or diarrhœa, by nausea, vomiting, anorexia, and various pains, stomachal or intestinal, and most important of all, by fever. The reasons why we are justified in ascribing the fever to the intestinal trouble are several: First, we meet with the same fever, accompanied by the same gastrointestinal symptoms before and after dentition, and by the same vasomotor and circulatory disturbances, and find them promptly relieved by the same remedies. Again, we know now that a stomachal or duodenal stasis, any interruption in the digestive process and more particularly of that in the duodenum, which is the most important digestive centre, permits the absorption of half digested or half oxidized products, certain albumoses and toxins, which produce fever just as readily as bacterial products in infected wounds. In fact, it is recognized that under congestive and inflammatory conditions in the alimentary canal, these same bacterial products are absorbed. Fever is frequently produced in adults by this cause, and how much more liable is the susceptible infant to the same cause, and especially during the period of dentition. Again, as we should expect, we meet this complication in those infants of poor constitution where the digestive functions are below the normal. Again, how often have we not seen the rapid decline of a high fever immediately after the vomiting or the passing by stool of the offending matter in the bowel, and found that those remedies which encourage the removal of this half digested matter are the best febrifuges.

The so-called teething rashes are the direct result of this intestinal trouble.

You may ascribe this disorder to a direct reflex source, to a chilling of the surface, to imperfect food, to almost any cause you wish, operating during the susceptible period of great physiological activity, the period of growth and development, and still you will have ever before you the upper bowel principally as the seat of the trouble. Of course, bronchitis or pneumonia, or any other chest condition existing at the time, tells its own story, and you have another or an additional cause for your fever; but these are the exceptional conditions and are more remote from the dentition proper. Therefore, as we can indicate the duodenum or the most vital portion of the alimentary canal in the digestive process, as more important than the stomach or the bowel below, as the point where the nervous and circulatory energies are most active, and therefore from a reflex or from any other cause, most apt to be affected, we may well call the fever of dentition a *duodenal fever*.

I am sure that when we are out of sorts and talk about our liver, we had better first mention the duodenum as the primary trouble. For it is duodenum and small bowel and portal circulation before the liver wakes up to the situation. And our so-called liver remedies are really duodenal remedies. That is what calomel is.

If all this is admitted, the treatment is very evident. And first, it naturally follows that any interference with the gums is of very secondary importance, if not absolutely harmful; and that whatever local treatment may be used in the mouth, the lancet will be but rarely called for. The literature on the subject bears me out here. And secondly, and most important, a treatment directed to the disturbed digestion is the one thing needful. And we have no long list of drugs to consider. I think we can all agree that a few calomel triturates and castor oil cover a multitude of sins; and that if we prescribe aconite and bromide or chloral, it is only until those old standbys shall have time to act.

There is, however, one remedy that I should like to say a good word for, and that is potassium chlorate, an old friend much neglected, I fear, in these days of so many drugs. In my experience this drug is more valuable internally than locally, yet I use it both ways. It is potent for good in many diseased conditions of the mucous membrane of the mouth, caused by dentition or in any other manner, especially if the way is cleared for it by peroxide of hydrogen. I use it internally for other mucous membranes. Lawson Tait taught me its value in controlling pelvic congestion, and my prescription of a combination of

potassium chlorate and tincture of hydrastis canadensis I use indifferently to control menorrhagia or metrorrhagia and to cure a stomatitis, aphthous, mercurial, or ulcerative. It has, besides, a good influence upon the mucous membrane of the entire alimentary canal.

But, as I said before, look to the duodenum and relieve the trouble there with a few simple remedies, and you will need no fever mixtures.

AN EXPERIENCE WITH THE X RAY IN KRAUROSIS VULVÆ.

By G. H. STOVER, M. D.,

DENVER, COLO.

LECTURER ON RADIOLOGY AND ELECTROTHERAPEUTICS, DENVER-GROSS MEDICAL COLLEGE; RADIOLOGIST TO ST. JOSEPH'S HOSPITAL.

Mrs. F. G. P., aged fifty years, who had suffered severely from kraurosis vulvæ for several years, was referred to me by Dr. C. K. Fleming, who had made the diagnosis, for a trial of the x ray.

The area involved consisted of the labia minora and all the mucous membrane between them, and the pain was most acute. The patient was told that we knew nothing whatever of the effect of the x ray in this condition, and with that understanding an exposure was made; she had thoroughly removed from the affected parts all the emollient she had been using, under the impression that the ray would not go through it, so she was in more pain than usual at the time of the treatment. I used my Kinraide coil, supplied by 220 volt direct current, a tube of medium vacuum, distance six inches, time ten minutes, all the surrounding skin protected by a shield of sheet lead.

The exposure was made at 2 p.m. on March 14, 1903; that evening her suffering was so great that Dr. Fleming was called; he found the diseased area redder than common, swollen and œdematous, the appearance being much like that of erysipelas.

Further radiation was decided against and after a week or two, when the inflammation had subsided, Dr. Fleming excised the affected tissue.

I was very much surprised when I learned of the condition and was disinclined to attribute it to the x ray; I have given many thousand radiations and have never seen a reaction occur in anything like so short a time as this, but of course my experience had not included a case of kraurosis vulvæ. I believe, though, that if the ray did have this effect, the rubbing and cleansing which the patient had given the parts must have had an influence also.

Therapeutical Notes.

For Chronic Otorrhoea.—Chébayev, according to *Bulletin médical de Nantes*, recommends the following:

R. Resorcin of each 60 centigrammes
Tincture of opium
Distilled water 4 grammes (1 drachm).

M. Eardrops.

The ear should be washed with warm boric acid solution, and carefully dried with absorbent cotton. Eight to fifteen drops of the above, slightly warmed, are then dropped in and allowed to remain for 15 to 30 minutes, the patient holding the head bent over towards the opposite side. A cure may be expected in three weeks from one daily treatment. The solution is also useful in external otitis, furunculosis and acute myringitis.

A Clear Solution of Menthol.—It is well known that menthol is insoluble in water, and, if combined with water and alcohol, will tend to recrystallize and float upon the mixture, rendering the latter dangerous to administer. By the use of preparations containing saponines, however, menthol can be rendered soluble. The tincture of soapbark (*quillaija*) has been used, but its glucosides are toxic. *La Policlinique*, of Brussels, quoting *Bulletin de la société de thérapie*, ascribes to Brocadet the following ingenious mixture in which the three saponines of sarsaparilla are utilized. It makes a perfectly clear mixture, which is extremely valuable in vomiting of nervous origin:

R. Menthol 5 centigrammes ($\frac{3}{4}$ grain);
Tincture of sarsaparilla 5 grammes (75 minims);
Syrup of orange flower 25 grammes ($6\frac{1}{4}$ drachms);
Distilled water 100 grammes (3 ounces).

M. A tablespoonful every hour.

For Hepatic Colic.—Chauffard, according to *Progrès médical*, advises the following emulsion to relieve hepatic colic:

R. Olive oil 150 to 400 grammes (4 to 12 ounces);
Cognac 15 grammes ($\frac{1}{2}$ ounce);
Yolks of egg 2;
Menthol $\frac{1}{2}$ gramme ($7\frac{1}{2}$ grains).

M. Take in the morning, in two doses, 15 minutes apart.

Iodized Glycerin for Hæmorrhoids.—Preissman (*Revue française de médecine et de chirurgie*) uses glycerin in combination with potassium iodide and iodine as in the two following formulæ:

R. Potassium iodide 2 grammes (30 grains);
Pure iodine 20 centigrammes (3 grains);
Glycerin 35 grammes ($8\frac{3}{4}$ drachms).

M. Weak solution.

R. Potassium iodide 5 grammes (75 grains);
Pure iodine 2 grammes (30 grains);
Glycerin 35 grammes ($8\frac{3}{4}$ drachms).

M. Strong solution.

Idiosyncrasy decides the choice between the above. The patient takes a warm bath and applies cotton saturated in the solution to the affected parts every hour.

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FRANK P. FOSTER, M.D., KENNETH W. MILLICAN, M.R.C.S.,
Editor. Associate Editor.

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NEW YORK, SATURDAY, JULY 25, 1903.

POPE LEO XIII.

Within the last few days there has closed a memorable conflict with Death. Death always prevails in the end—that is, so far as mundane considerations are in question—even if, as we are informed in our early religious training, his is not the final triumph. This time he has chosen a shining mark, but he has chosen it all too late for the enforcement of his terrors. Like every other son of Eve, the Pope had sooner or later to succumb, but the advanced age at which he yielded points the lesson of the great fight that he made against the common destroyer.

Well past the age of ninety, Leo contended almost with the power of youth against a serious disease. That he was enabled to do so will generally be construed, and rightly, as an exemplification in a high degree of the sustaining power of a correct life. That Leo lived hygienically, and therefore that he was fitted to battle with Death at the greatest advantage, will not be denied by any well informed person. This is an inevitable inference, and it is an inference that, even if not quite demonstrable, ought to prove a powerful incentive to correct methods of living and a strong deterrent to opposite methods. Nevertheless, the Pope labored constantly under grave responsibilities and crushing anxieties; and we are taught to believe, and do believe, that a sense of responsibility and a feeling of anxiety are more wearing than hard work or any reasonable habitual infractions of the rules of temperate liv-

ing. Amid all his responsibilities and anxieties, therefore, the Pope must have dwelt in a serenity born of an undisturbed conscience—we are speaking of him now, of course, as a mere man, and not as the spiritual descendant of St. Peter. Serenity, even if burdened with perplexity, is a powerful sustainer, and this we must remember when we are inclined to wonder at the Pope's extraordinary vitality.

Such a thoracic trouble as the Pope was affected with would be serious even in the case of a much younger man, but we may be sure, in spite of his surprising power of resistance, that the enfeeblement of old age was the deciding element in bringing about his death. He bore the dyspnoea well, and he revived satisfactorily after each operation of thoracocentesis, but the feebleness of bodily senility—for there was no impairment of his mental vigor—determined the fatal issue. There can be no doubt that he received the best of medical attention or that the physicians' bulletins were candid.

THE VERA CRUZ YELLOW FEVER PARTY.

So long ago as in the early days of March, 1902, Surgeon General Wyman, of the Public Health and Marine Hospital Service, asked and obtained leave of the Secretary of the Treasury to appoint Dr. George E. Beyer, professor of biology in Tulane University, and Dr. O. L. Pothier, pathologist to the New Orleans Charity Hospital, temporary acting assistant surgeons in the service for the express purpose of detailing them, when the proper time should arrive, in association with Assistant Surgeon Herman B. Parker, of the service, on a working party to study the subject of yellow fever, especially its ætiology, in either Mexico, Central America, or South America. Events led to the selection of Vera Cruz as the scene of the party's work, and it began operations on May 12, 1902, and continued them until toward the end of October. Examinations of material brought from Mexico were prosecuted in this country up to the date of the report, February 17, 1903. The story is told in Bulletin No. 13 of the Yellow Fever Institute, entitled *Report of Working Party No. 1, Yellow Fever Institute; a Study of the Ætiology of Yellow Fever*, issued in March and just received at this office. It was to be expected that the physicians and sanitary officials of Mexico

would cooperate cordially with our representatives in this inquiry; all the same, it is gratifying to be able to record the fact that they did so.

The conclusions reached by the party are as follows: 1. Bacteriological examination of the blood of persons with yellow fever during life, as well as of the blood and organs immediately after death, in uncomplicated cases, is negative. 2. The mosquito known as *Stegomyia fasciata*, when allowed to suck the blood of a yellow fever patient after the lapse of forty-one hours and a half after the onset of the disease, and subsequently fed on sugar and water for twenty-two days and an hour and a half, can, if permitted to bite a non-immune person, produce a severe attack of the disease. 3. *Stegomyia fasciata* contaminated by sucking the blood of a yellow fever patient, and then killed, cut into sections, and appropriately stained, presents with regularity a protozoan parasite, *Myxococcidium stegomyiæ*, that can be traced through a cycle of developments from the gamete to the sporozoite. 4. *Stegomyia fasciata* fed on the blood of a person with malarial fever, on normal blood, or artificially does not harbor the myxococcidium.

As regards the question of whether or not *Stegomyia fasciata* is the only means of transferring the disease, the report says: "To prove a negative assertion, conditions must be supplied to produce the disease at will or under constant conditions. In the whole history of the disease such data, to this date, are wanting. When one instance occurs and can be repeated, the new factor can then be taken into consideration." The name *Myxococcidium stegomyiæ* is given tentatively to the sporozoon, though its classification among the *Hæmosporidia* is "based entirely upon practical considerations of convenience rather than upon a conviction of its exact position," since its schizogonic cycle has not yet been observed.

Though the subject of the conveyance of mosquitoes by ships was not studied in detail, owing to lack of facilities, some interesting observations were made. It was found that wooden water tanks were more likely than iron ones to be contaminated, owing to the fact of their being less carefully cleansed, also that the well of the carpenter's grindstone was a favorite place for the breeding of mosquitoes. The report is illustrated

with numerous well executed pictorial illustrations of various mosquitoes, and excellent advice is given as to the screening of rooms in which yellow fever patients are placed.

INTERNAL PROCTOTOMY FOR CONSTIPATION.

To say that nothing of practical value has been added to our knowledge of the "valves of the rectum," since they were first described by Hous-ton, in 1830, would be but slight exaggeration. He pointed out that the rectal mucosa was sufficiently ample to allow of great distention of the gut, and that it was naturally arranged into folds. This has been verified by many since; and Otis added all that has been added when he tried with more or less success to assign to each fold a definite location.

That these folds have any really valvular action in controlling the flow of fæces is an unproved assumption; and the theory that they are the most effective and constant cause of constipation is absolutely without proof. What, then, can be said of the practice of incising them, crushing them, and tying them off with specially devised instruments, in an effort to destroy them, except that the special surgery of the rectum has run a little wild and needs the restraining influence which naturally comes from the common sense of the general practitioner? For these little operations so airily described, such as cutting a V-shaped piece out of a loose fold of mucous membrane some six inches from the anus through a speculum, are seldom really accomplished, and the serious attempt to perform them has proved fatal, as could easily have been predicted by any surgeon. The treatment which has been recommended with apparent seriousness of "massaging a slightly enlarged valve by means of a probe covered with cotton at the tip" is certainly less dangerous.

The expression "hard, fibrous, enlarged rectal valves" is finding its way into literature, but when anything hard and fibrous is found obstructing the calibre of the rectum it will not be an enlarged rectal valve, causing chronic constipation. It will be a stricture of the rectum with the same pathology as all other strictures, and to be treated in the same way; and internal proctotomy for

this condition, except when very near the anus, is attended by a higher mortality than complete extirpation by any of the recognized methods.

The mechanical obstacles to the passage of fæces through the canal are well recognized and are grouped under two general heads—those arising from pressure from without (tumors, bands, etc.), and those caused by disease of the bowel itself, or, in other words, strictures of any variety. To add to these, the soft, pliable, variable, and movable normal folds of rectal mucosa as pathological conditions is much the same as including the rugæ of the stomach among the causes of obstruction of the pylorus.

CHARLES B. KELSEY.

THE NEW VOLUME OF THE INDEX-CATALOGUE.

Volume VIII of the second series of the *Index-Catalogue of the Library of the Surgeon-General's Office, United States Army*, has just been issued. It carries the vocabulary from Insane to Kysthospitalet, and from that fact we infer that the second series will contain almost as many volumes as were included in the first series. This shows that the library is growing with great rapidity. An additional list of titles of periodicals occupying eleven pages indicates that in the item of journals the growth of the library is commensurate with its increase in books. It is needless to say that the accuracy and fulness of detail for which the work is renowned are perfectly shown forth in this volume. The *Index-Catalogue* is indispensable to all who have to consult medical literature to any great extent—that is to say, to every progressive physician.

THE ONTARIO MEDICAL COUNCIL.

The Provinces of Ontario and Quebec have probably the most stringent medical laws on the continent. To practise, a candidate must be a graduate from a "regular" school of medicine; he may then announce himself as a homœopath, an eclectic, or what he pleases. It appears, however, that the Christian Scientists and the Osteopaths have found a loophole in the law, through which they have crept, and the Ontario Medical Council is organizing a determined opposition to the encroachments of the latter. They are framing a new law, which they are confident of getting through the legislature, that will classify all the irregulars as practitioners and subject them to the Provincial examinations. This will result in quacks being at least men of medical education. It recalls a recent incident in Paris where a "mental healer" was haled before a magis-

trate for irregular practices. The accused was found to be a regularly graduated and licensed physician, and was therefore released, the magistrate holding that, once having complied with the law, a graduate could apply any therapeutic measures he saw fit.

THE HALL OF FAME.

The *Chicago Sunday Tribune* has a department of "Editorials by the Laity" somewhat comparable to our "Signed Editorials." In the issue for June 28th, Dr. Liston H. Montgomery, in one of those lay editorials, adds his to the many protests that have appeared against the entire omission of medical men from the list of those whom the Hall of Fame of New York University has been made use of to perpetuate the memory of eminent Americans. No such agency as a Hall of Fame is needed to hand down to posterity the privilege of maintaining the remembrance of the many great men of the American medical profession who have contributed notably to the advancement of medicine. Their fame is enshrined in the hearts of their professional descendants.

News Items.

Society Meetings for the Coming Week:

TUESDAY, July 28th.—Richmond, Va., Academy of Medicine and Surgery; New York Medical Union (Private).

WEDNESDAY, July 29th.—Auburn N. Y., City Medical Association; Berkshire, Mass., District Medical Society (Pittsfield).

SATURDAY, August 1st.—Miller's River, Mass., Medical Society.

NEW YORK, CITY AND STATE

The Contract for the Scarlet Fever Hospital at the foot of East Sixteenth Street, adjoining the Willard Parker, has been awarded, the price being \$377,000.

Outbreak of Rabies.—It is stated that there is an epidemic of rabies in the town of Montgomery, Orange County, that has been raging undiscovered for several weeks.

Milk Stations in Rochester.—Four milk stations for the sale of pasteurized milk have been established in Rochester by the local board of health, each to be under the supervision of a trained nurse.

Legacy to St. Peter's Hospital.—Among the numerous bequests of the late Charles A. Hoyt, of Brooklyn, was one of \$1,000 to St. Peter's Hospital of that borough. A like amount was left to the Brooklyn Home for Consumptives.

Buffalo Garbage Problem.—The disposal of garbage, which has bothered the Buffalo authorities for some time, has finally been handed over to a company, which has agreed to dispose of it and pay \$164,000 for the privilege.

Utica General Hospital.—Hugh H. Lenahan, son of Mrs. C. J. Lenahan, of 59½ Lansing Street, Utica, a recent graduate of the medical department of the Syracuse University, has been appointed interne of the Utica General Hospital.

Rotting Grain as a Nuisance.—Dr. Greene, the health commissioner of Buffalo, is taking active steps to enforce the removal of a quantity of rotting grain from the ruins of the Diamond Mills. The stench arising therefrom is denounced as a sanitary nuisance.

"Incumbrances" on Fire Escapes.—The recent recommendation of the physicians of the Board of Health, that invalids sleep upon the tenement house fire escapes, has proved so popular that it is not unlikely that the law, which forbids the placing of any incumbrances on these safeguards, will have to be modified.

Diphtheria in Rochester.—It is reported that diphtheria is almost epidemic in Rochester. The disease is said to be of the malignant type, and is not confined to any one section of the city. Vigorous efforts are being made to control the disease, and every house is quarantined as soon as a case of diphtheria is reported from it.

A Physician Recovers Pay from a Village.—During an outbreak of smallpox in the village of Charlotte, N. Y., last winter, Dr. John E. Ottoway, of Rochester, acted as public health physician. He presented a bill for \$803.65, which the village refused to pay, but on suit being threatened, the trustees compromised the matter by paying \$700.

New Hospital Near Ellis Island.—The boundaries of the new Immigration Hospital for Contagious Diseases were staked out during the week. It will be south of Ellis Island from which it will be reached by a bridge. The building is to be 800 feet long by 250 feet wide and its cost is estimated at \$30,000.

Medicolegal Dispute in Jamaica, L. I.—The Board of Health of Jamaica is engaged in a lively dispute with the coroners, the former alleging that a permit must be obtained from the sanitary superintendent in order to hold a body more than four days. The coroners deny the necessity of such a permit. The Corporation Counsel will probably be called upon to decide the matter.

Experienced Nurse Honored.—John S. Langton, a nurse of the Hudson Street Hospital, has received a gold medal from the board of governors of that institution for meritorious services rendered during a period of twenty years in his present situation, and at the old Chambers Street building. Langton is said to have assisted Dr. Lewis A. Stimson in the first successful operation for laparotomy.

The Albany Hospital for Incurables.—Miss Mary McHugh has been appointed general superintendent of this institution, to fill the vacancy caused by the death of Mrs. Eleanor Spensely. Miss McHugh has long been identified with philanthropic work in Albany. St. Elizabeth's Guild, which has

done so much effective work among the poor was organized largely through her efforts.

Flushing Hospital in Straits.—A meeting was held recently in Brooklyn to discuss measures to save the Flushing Hospital from being turned over to the city; the debt of the institution has been increasing lately at an alarming rate. Dr. Joseph F. Bloodgood was able to announce that he had secured subscriptions to the amount of \$2,600, and promised to have a similar amount collected in another week.

Sneak Thief in Brooklyn.—Physicians of Brooklyn are warned against a sneak thief, who is playing an old game in calling when the doctor is out, stating that he will wait and, in the absence of the servant, decamping with the nearest piece of valuable, portable property. The thief is a cadaveric specimen, about 25 years old, and five feet, eight inches in height. He dresses in sombre garments and has an upper tooth prominently filled with gold.

Nurses for Manila.—There is said to be a great dearth of women nurses in the Philippines, and urgent requests for nurses have come recently from the hospitals there. The salary is \$35 a week, with board, and traveling expenses to and from Manila. Only nurses with seven years' practical experience and with satisfactory recommendations are eligible. Miss May Filbert and Miss Alice Page, both trained at the General Hospital, Buffalo, sailed on July 15th on the *Philadelphia* for Manila, via Southampton.

State Board for Examining Trained Nurses.—The board created by the Armstrong law to examine and license trained nurses meets for the first time this week at Albany. Nurses already graduated will not be affected by the new law. The board consists of Bissell Sanford, of New York, for one year; Annie E. Damer, of Buffalo, for two years; Dorothy N. McDonald, of Brooklyn, for three years; Sophia F. Palmer, of Rochester, for four years; and Jane E. Hitchcock, of New York, for five years.

Cholera Infantum in Buffalo.—While very few deaths have occurred from cholera infantum in Buffalo as yet, notwithstanding the great heat, the health department is exercising great vigilance in its efforts at prevention. Circulars printed in English, German, Polish and Italian are being widely distributed in quarters where they are likely to be of service, and instructions are being given to mothers as to the proper care of infants in hot weather, feeding, etc.; while general simple instructions are added for home methods pending the arrival of a physician.

Need in Albany of a Hospital for Contagious Diseases.—An eight-year-old girl, accompanied by her brother, on a journey from New York to Schenectady, was attacked with diphtheria while in Albany. Although the diagnosis was positive, and the child seriously ill, she was refused admission at four hospitals, at least. Being under sixteen years of age, she could not be committed to the almshouse, but arrangements were finally

made to fit up a special, quarantined room for her, in that institution, and, after antitoxine had been duly administered, she was made comfortable under the care of a trained nurse.

Jefferson County Medical Association.—An association with this title was organized on July 6th. The following officers and committees were elected for the ensuing year: President, Dr. B. C. Cheeseman, of Watertown; vice-president, Dr. P. H. Johnson, of Adams; secretary and treasurer, Dr. Florence Sherman, of Watertown; executive committee, Dr. J. R. Sturtevant, three years; Dr. W. H. Humphries, two years; Dr. Ross, one year. Committee on Ethics, membership and discipline, Dr. Minor, Dr. Sturtevant, Dr. Kimball. Legislative committee, Dr. Severance, Dr. Goss, Dr. Lawler. Dr. A. J. Dick was chosen to represent the county association at the meeting of the State association in New York city next October, with Dr. C. C. Kimball as alternate.

Ontario County Medical Society.—This society held its annual meeting in the Supreme Court room in Canandaigua on the 14th inst. The following officers were elected: President, John H. Jewett, of Canandaigua; vice-president, G. T. Sargent, of Seneca Castle; secretary and treasurer, D. A. Eiseline, of Shortsville; censors, J. R. Pratt, of Manchester; W. A. Howe, of Phelps; and Spaulding, of Clifton Springs. The following programme was discussed. 1. Presentation of a case of Epithelioma apparently cured by x-ray, by Dr. W. A. Howe. 2. Presentation of a case of congenital dislocation of hip, operated on by Dr. Lorenz, by Dr. J. H. Pratt. 3. Diseased tonsils the incubators, and portals for the entrance of disease germs, the frequent cause of rheumatic affections, by Dr. John O. Roe, Rochester. 4. Uterine Fibroids, by Dr. A. L. Beahan. 5. Diagnosis of frequent eye diseases, by Dr. J. A. Spengler. 6. President's address, Heredity and Transmission. 7. The Old and the New, by Dr. J. H. Jewett.

Final Decree, Enjoining James Kerr et al from selling substitutes for Fairchild's Essence of Pepsine. A copy of this decree, handed us, was as follows: At a Special Term of the Supreme Court, Part I thereof, held in and for the County of New York, at the County Court House, Borough of Manhattan, City of New York, on the 25th day of June, 1903, Fairchild Brothers & Foster, a corporation, plaintiff, against James Kerr, defendant, Now, on motion of Gould & Wilkie, attorneys for the plaintiff, it is adjudged that the defendant, his clerks, agents, servants and employees, be and they hereby are, enjoined and restrained perpetually from selling or dispensing either at the drug store of the said defendant, at West New Brighton, in the Borough of Richmond, of the City of New York, or elsewhere, any Essence of Pepsine, or pharmaceutical preparation of any sort or kind whatsoever, not manufactured by plaintiff, in imitation of, or in substitution for, Fairchild's Essence of Pepsine, whenever Fairchild's Essence of Pepsine is prescribed or asked for, and from representing by any word or action that any preparation sold by said defendant, not manufactured by plaintiff, is Fairchild's Essence

of Pepsine, together with taxed costs. Thomas L. Hamilton, clerk.

PHILADELPHIA AND PENNSYLVANIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

Diseases.	Week end'g July 18.		Week end'g July 11.	
	Cases.	Deaths.	Cases.	Deaths.
Small-pox	24	14	54	11
Diphtheria	21	6	46	6
Scarlet fever.....	42	1	48	5
Typhoid fever.....	77	19	86	17
Consumption	0	49	57	1
Cerebrospinal fever.....	1	1	1	1

This table shows a decrease of seventy-eight in the total of cases of contagious disease as compared with the preceding week.

The New Hospital at Frankford has been formally opened. It has been equipped with the latest modern appliances. Although opened only a few days, it has already done considerable good. The residents of the section of the city, in which the hospital is located, take a great interest in it, and the generosity of friends has been thoroughly enlisted.

The Work on the Pasteurized Milk Plant is progressing, and it is expected that within a short time it will be in operation. The old building on Filbert Street, which was formerly occupied by the Board of Education, is being turned into one of the most modern plants in the country. The outcome is being watched by all the medical profession of this city.

Discussion of Vaccination in Philadelphia.—An "intelligent and truthful" correspondent of the Philadelphia Ledger states that during a visit to Paris, five years ago, he found *all the doctors* condemning vaccination; from undoubtedly similar sources of information, he has learned that half the physicians of Philadelphia disapprove of the practice.

Work at Presbyterian Hospital.—The Presbyterian Hospital admitted 220 patients during June and discharged 226. The total number treated was 434, leaving 208 in the hospital on June 30th, divided as follows: Men's medical, 26; men's surgical, 28; women's medical, 18; women's surgical, 29; children's ward, 24; private rooms, 25; Cathcart Home for Incurables, 28; Richardson Home for Convalescents, 30. Two thousand, two hundred and thirty-nine persons were treated in the dispensary.

The Philadelphia Hospital.—The new roof garden was opened on July 14th, by Mayor Weaver. It was built by order of Dr. Edward Martin, director of public health and charities. It is two hundred feet by thirty feet in area, constructed of hard oak and seasoned pine, and covered with twelve-ounce duck canvas, which can easily be rolled down so as to give the appearance of a large tent. Cots to accommodate about 100 patients line the sides. There are an elevator and ample means of escape in case of fire. It has already proved of benefit to those with this disease. The garden is used for men and boys, and, if the results are as favorable as it is thought they will be, another garden is to be constructed for the use of women.

Dr. Martin is watching the result very closely. It is his desire to give every consumptive at the hospital the benefit of outdoor life, and he will urge that a State reservation be placed at the city's disposal for the use of consumptive patients who are under the care of the Philadelphia Hospital.

Fighting the Smallpox Epidemic.—Every effort is being made by the health authorities of this city to stamp out smallpox. There is considerable alarm over its prevalence, and the medical staff of the bureau have been instructed to do all that lies within their power to eradicate this disease. Under the present management of the Bureau of Health, there has been a great change made in enforcing the sanitary laws. The heads mean business, and it is the intention to show no favor, but to treat all alike. Compulsory vaccination is now on and every effort is being made to secure the cooperation of all business men and corporations in having the employees vaccinated. All the city office holders are to be vaccinated. This order has now been in effect for about two weeks, and during that time there have been hundreds of people vaccinated. Owing to this enforced vaccination there was a marked decrease in the number of new cases of smallpox rendered by the Bureau of Health for the week ending July 18th. Although there has been a decrease in the number of cases, Dr. Abbott, chief of the Bureau of Health, says: "It would be a grave mistake to say that the danger from smallpox is at a minimum, even now that the disease seems to be gradually diminishing, and consequently the active campaign, inaugurated against the disease, will be continued indefinitely. The cooperation of hospitals, and business houses has been of much service to us. In addition to the work of vaccination, the cleaning of back alleys, and the removal of rubbish and garbage have been important factors in tending to stamp out the disease. I am extremely gratified at the results we have attained."

CHICAGO AND ILLINOIS.

Fourth of July Tetanus.—Fifteen deaths have occurred from tetanus, due to the use of toy cannons and pistols, since the last celebration of the glorious Fourth.

Charge of Bribery Against a Milk Dealer.—Health Officer Weiss charges that, after he had inspected the premises of a milk dealer on Maxwell Street, and found them in a most unsanitary condition, the proprietor attempted to bribe him by slipping a five-dollar bill into his pocket. Weiss has been instructed by Dr. W. K. Jaques, of the city laboratory, to bring charges against this dealer for violation of the milk ordinance, and also for bribery.

How Many Cigars Can a Doctor Smoke?—Dr. E. P. Rice has brought suit against a cigar dealer, for professional services rendered, to the amount of \$108.00. The cigar dealer contended that he had discharged this debt, by presenting the doctor with a box of cigars, valued at \$3.50, every week for twenty-eight weeks. The judge decided against the dealer, stating that no man, and espe-

cially a doctor, could possibly smoke an entire box of cigars weekly.

Trouble at the Hospital for Incurable Insane.—An architect, whose bid for the erection of eight cottages to be added to the State Hospital for the Incurable Insane was not accepted, has filed a bill of injunction against the State auditor and two others, to prevent payment of the appropriation of \$300,000 to the successful bidder. He affirms that the State will be defrauded out of \$25,000, if this payment is made, and that the contract is the result of a fraudulent deal.

GENERAL.

Vaccination in Detroit.—Over 70,000 people in Detroit, Mich., have been vaccinated since the beginning of the year. The expense to the city has been about \$10,000.

Milwaukee County Medical Society.—At a meeting of the foregoing on the 10th inst., papers were read by Dr. Durholt, on Weak Foot, and by Dr. Thomas Hay, on Eczema.

Aftermath of the Fourth.—Over thirty cases of tetanus, resulting in death, have been reported from New England. Forty-five deaths from the same cause have been reported from Pennsylvania.

Nurses' Strike in Milwaukee.—Objection has been taken to the severe discipline enforced by the head nurse at the Milwaukee County Hospital, and the entire force of nurses has struck in consequence.

New Building for Epileptics in Maryland.—A new building is to be added to the Maryland State Hospital for the Insane at Springfield, at a cost of \$25,000. It will be built of brick and terra cotta, two hundred feet in length, by fifty and twenty-five in breadth. There will be twelve private rooms and a sun parlor.

Mosquito War in Indiana.—The Indiana State board of health has ordered crude kerosene to be poured on the surface of three large ponds near Noblesville, into which the refuse from a number of strawboard factories is emptied. These ponds have long been recognized as breeding spots for mosquitoes.

Boston Floating Hospital.—The physicians in charge of the floating hospital of Boston urge parents to bring their children for a voyage as soon as there are any symptoms of disease. They state that children have been brought to the boat in a hopeless condition, that might have been saved, had they been enabled to take the trip a few days earlier.

New Dispensary at Kansas City, Mo.—The University Hospital has opened a free dispensary for women at 902 East Tenth Street, Kansas City, Mo. The dispensary is intended for working women, not sufficiently incapacitated by illness to render it necessary for them to enter a hospital. There are a well furnished reception room, a waiting room, and an operating room, fitted with a complete outfit for electrical therapeutics.

Staff of New Orleans Charity Hospital.—The Board of Administrators have elected the following staff: House surgeon, James M. Batchelor; first assistant, Joseph A. Danna; second assistant, Stephen W. Stafford.

The Wisconsin State Board of Medical Examiners.—At the annual meeting of this board, Dr. J. R. Currens, of Two Rivers, was re-elected president. Dr. F. A. Forsbeck, of Milwaukee, was elected secretary and treasurer.

Bayonne Hospital in Need.—A number of women, prominent socially in Bayonne, N. J., have undertaken a house to house canvass, to solicit subscriptions for the local hospital, which is in pressing need of the sum of \$5,000 to meet immediate expenses. The city has been divided into districts, each under the control of one canvasser.

Association of Southern Railroad Surgeons.—The convention of this association adjourned on the 10th inst., after electing the following officers: President, R. L. Payne, of Norfolk; first vice-president, J. S. Voyles, of Corinth; second vice-president, C. P. Martin, of Russellville; secretary-treasurer, J. J. Harrison, of Loudon County, Tenn. Members of the Executive Committee: Rhett Good, of Mobile; F. W. McRehy, of Atlanta, and E. Franklin Smith, of New York.

McGill University.—The following appointments have been made in the faculty of medicine: Dr. J. G. McCarthy, assistant professor of anatomy; Dr. J. T. Halsey, assistant professor of pharmacology and therapeutics; Dr. R. A. Kerry, lecturer in pharmacology and therapeutics; Dr. S. Ridley Mackenzie, lecturer in clinical surgery; Dr. John McCrae, lecturer in pathology; Dr. D. A. Shirres, lecturer in neuropathology; and Dr. D. D. McTaggart, lecturer in medicolegal pathology.

Tuberculosis in Cuba.—According to the monthly report of Dr. Carlos J. Finlay, chief sanitary officer for Cuba, received by the Cuban Legation in Washington, D. C., there has been an increase of 5 to 6 per cent. in deaths from tuberculosis in each of the years 1901 and 1902, and at present the proportion of deaths from that cause is over 16 per cent. of the general mortality. There has been a decrease, however, in the mortality from malarial poisoning, and yellow fever and smallpox have been practically unheard of since 1901 and 1900 respectively.

The Wisconsin College of Physicians and Surgeons has appointed Dr. Herman Reineking, of Sheboygan, professor of surgery, carrying with it that of surgeon to St. Joseph's Hospital and to the college's free dispensary. Dr. Maurice L. Henderson and Dr. Julius W. Kleinboehl will not, as reported, leave to take positions in the Milwaukee Medical College. Dr. Henderson is instructor in obstetrics and clinical assistant in surgery, and Dr. Kleinboehl will be clinical assistant in genitourinary surgery. Peter H. Jobse, who has returned from Europe, will be clinical pro-

fessor of genitourinary surgery. Dr. Albert G. Jenner, who studied in Austria last year, will instruct in pathology. Among the others newly appointed are: Dr. Arthur J. Burgess, to take the place of Dr. Thomas Fitzgibbon in the department of gynecology; Dr. Arthur J. Patek, to lecture on diagnosis; Dr. Clarence G. Hardy, to instruct in gynecology and to lecture on medical anatomy; Dr. Frank E. Darling, instructor in bacteriology; Dr. Thomas Willett, instructor in histology and bacteriology; Dr. Adam G. White, demonstrator in anatomy; Dr. Robert Curtis Brown, lecturer on hygiene; Dr. Herman Reineking, of Sheboygan, professor of clinical surgery; and Drs. A. J. Taugher and L. C. Tisdale, clinical assistants in surgery. New men on the free dispensary staff are: Dr. Milton M. Spitz, in the department of medicine; Dr. Herman Reineking and Dr. L. C. Tisdale, in surgery; Dr. Otto H. Foerster, diseases of the skin; Dr. Hoyt E. Dearholt, department of orthopaedic surgery.

The Medical Society of the State of North Carolina.—The fiftieth regular annual session of the Medical Society of the State of North Carolina was held at Hot Springs, June 2nd, 3rd, and 4th, under the presidency of Dr. A. W. Knox, of Raleigh. The meeting was in every respect one of the most successful in the history of the society. The president's address dealt with the Reorganization Scheme of the American Medical Association. The secretary, Dr. J. Howell May, of Waynesville, was chairman of the committee on constitution and by-laws at the meeting. He secured the adoption of the new constitution embodying the principles asked for by the American Medical Association. It is of interest to note in this connection that the original constitution of the society, as adopted in 1849, provided for county societies and delegates from them to compose the State society; so, in a certain sense, North Carolina, in revision, is only reverting to first principles. The matter of organization of county societies throughout the State will be pushed during the coming year. The State was divided into ten districts, and the following councillors were placed in charge of the organization work in the various districts: First district, Dr. Oscar McMullan, of Elizabeth City; second district, Dr. D. T. Taylor, of Washington; third district, Dr. Frank H. Russell, of Wilmington; fourth district, Dr. Albert Anderson, of Wilson; fifth district, Dr. J. F. Highsmith, of Fayetteville; sixth district, Dr. Hubert A. Royster, of Raleigh; seventh district, Dr. E. C. Register, of Charlotte; eighth district, Dr. H. S. Lett, of Winston; ninth district, Dr. Thomas E. Anderson, of Statesville; tenth district, Dr. James A. Burroughs, of Asheville. The next annual session will be held at Raleigh, on June 1, 1904. The following officers were elected: President, Dr. Henry Bascom Weaver, of Asheville; secretary, Dr. J. Howell May, of Waynesville; treasurer, Dr. G. T. Sikes, of Grissom; vice-presidents, Dr. John Hey Williams, of Asheville; Dr. John C. Redman, of Washington; and Dr. S. F. Pfehl, of Winston. Members of the house of delegates of the American Medical Association (two years), Dr. J. Howell May, of Waynesville, and Dr. Albert Anderson, of Wilson.

"TO SEE OURSELVES AS OTHERS SEE US!"

[From the *Journal of the American Medical Association* for July 11th.]

PHILADELPHIA, June 29, 1903.

To the Editor:—Certain inaccuracies in the statement made by the late editor-in-chief of the *Philadelphia Medical Journal*, in your issue for June 20, seem to need correction in order that the profession may be better able to point the moral which adorns this tale. I refer particularly to the words:

"Two and a half years ago the *Philadelphia Medical Journal* reached a crisis in its affairs which led to a change in editorial management. There were many prominent medical men in Philadelphia and elsewhere who were interested in keeping the journal alive; and in spite of the fact that its short career up to that time had been marked by threatening disaster (due largely to the opposing aims and temperaments of men who commanded its various departments), a determined effort was made to rehabilitate the journal and give it a new lease of life. At the same time, however, the command of its stock was allowed to remain in the hands of a few (and a very few) laymen."

It is true that the difficulty two and half years ago was that of "opposing aims and temperaments," but these were the old division betwixt commercialism vs. ethics. It was this that culminated in the displacement of the editor by the commercial interests, in order (as was stated at that time), to install some one who might either be hoodwinked by them or who would be pliable to the demands of commercialism. The "impending disaster" was brought into existence solely as a reason to give for deposing an editor who refused to be subservient. These facts were made known to the late incumbent personally before he assumed the position of editor-in-chief, following my dismissal and the abrogation of the office of editor, and were also made known to the profession in general by a "protest" presented at the annual stockholders' meeting of the Philadelphia Medical Publishing Company, and thereafter sent to practically every physician in the United States and Canada. It will be remembered that this protest was directed chiefly against the condition outlined in the last sentence of the quotation from the communication of the late editor-in-chief—the placing of the absolute control of a medical journal in the hands of practically one stockholder, a layman.

Not a word or sign of dissent to the statements contained in that protest has ever been made, and this letter by the recent editor-in-chief is an unexpected confirmation of their absolute truth, and reveals the rapid degeneration of the journal during the two and one-half years following. The disastrous conditions which have made the *Philadelphia Medical Journal* "practically dead in the city of its birth" have developed within the past three years. They could, however, never have prevailed had not the indifferent and apparently consenting attitude of a few physicians confirmed the commercial element in a belief that "professional ethics" existed only in the mind of the deposed editor, and that the profession would believe anything they pleased to say, if it was only said often enough and loud enough. Indifferent authors would help them by contributing their articles, indifferent physicians would send

in subscriptions, and a mint of money could be made out of them and out of advertisers with the aid of subservient professional helpers! When my incumbency as editor was terminated, the journal (according to report of its business manager) had close on 12,000 subscribers. That these were gained through confidence in the editorial conduct of that journal was shown by the fact that *American Medicine*, which two and a half years ago took up the spirit and aims laid down by the *Philadelphia Medical Journal*, had 12,000 subscribers in less than nine months from its inception. Having faith in the existence of professional sentiment and recognizing that, if it could build a journal like the *Philadelphia Medical Journal* was two and a half years ago, it could also maintain it, and desiring to avert the blight of commercialism from so fair a property, I made a proposition to the board of directors prior to the final act of my dismissal, offering to lease the journal from them for any period of years they should name, assuming entire editorial and business charge and guaranteeing them as rental an annual payment of 5 per cent. on the then capital stock of \$60,000. Under the conditions that then existed, with one journal in Philadelphia and with a different business management, this could have been done.

The communication of the late editor-in-chief is but a continuation of the story told in my "protest," and emphasizes the warnings of the dangers of commercialism in medicine as much by what it leaves unsaid as by the degrading conditions it reveals. Those in the profession and those dependent on the profession may read their lessons, the one of the evils resulting from the unfaith of commercialism, the other that ethical sentiment is growing, and that though commercial cunning may apparently prevail for a time, its portion will eventually be meted out to it.

GEORGE M. GOULD.

[From the *Journal of the American Medical Association* for July 18th.]

PHILADELPHIA, July 11, 1903.

To the Editor:—In your issue for July 11 there appears a letter from Dr. George M. Gould, in which, as is usual with him, he undertakes to point morals. As a pointer of morals Dr. Gould has acquired that facility which comes from a contemplation of the sins of others rather than from a serious inspection of his own faults; and it is, therefore, wholesome and right that one of his friends should hold the mirror up to his gaze. As a friend of the editor of *American Medicine*, and as one who took the editorial chair after his enforced retirement from the *Philadelphia Medical Journal*, I greatly regret that Dr. Gould should have missed seeing the true significance in the passing of the latter journal while the former is still permitted to exist.

Those who are perfectly familiar with the inside history of the *Philadelphia Medical Journal* can trace its misfortunes to two main causes which existed at its very organization: 1. The selection of Dr. Gould for editor. 2. The permitting the stock to fall into the control of a newspaper publisher who failed to agree with Dr. Gould and forced his retirement. Between this upper and nether millstone the journal came near being torn to pieces, and it was only by the efforts of some physicians and laymen of the highest character that the journal was temporarily saved. It is a mistake on Dr.

Gould's part, however, to suppose that the differences between himself and every one else were entirely ethical, and that he was the right and every one else was in the wrong. The differences were not entirely ethical, but were largely temperamental and were such as grew out of the fact that some otherwise very worthy men were not able to get along with Dr. Gould. That "commercialism"—about which the editor of *American Medicine* talks with the ease of one perfectly familiar with it—was not the only or chief cause of difference between Dr. Gould and the majority stockholder, is amply proved by the fact that no sooner did he establish *American Medicine* than he adopted a commercial policy more flagrantly offensive to the ethical sense of the medical profession than was ever followed by the *Philadelphia Medical Journal*. In this respect, indeed, he proceeded to out-herod Herod.

The truth of this assertion is proved by a glance at the advertising pages of *American Medicine*. Proprietary nostrums are admitted to an extent that shows the dependence of the journal on its advertisers, and, worse than all, a special advertising department has been maintained in which Dr. Gould publishes puff articles of proprietary medicines printed in such a way as to look exactly like original articles. I know of no reputable journal in America that does such a thing as that. Neither does he disguise that he is responsible for the business as well as the editorial conduct of his journal. These things being so, if Dr. Gould has the slightest sense of humor, he must be getting more fun out of the situation than are some of his stockholders. According to an old monkish legend St. Denis, after he was beheaded, went about carrying his head in his hands. Dr. Gould emulates the example of this holy man. Ever since he was decapitated he has gone about exhibiting his disjointed head as though it were the casket of all the virtues. So far as learned at this writing, however, he has not yet paid 5 per cent. on his stock.

When I assumed editorial charge of the *Philadelphia Medical Journal* I found that all the virtues had not departed with the enforced retirement of Dr. Gould. On the board of trustees were such men as Dr. James Tyson, Dr. J. C. Wilson, Dr. William Thomson, Dr. E. Sajous, Dr. J. B. Roberts, Dr. J. H. Musser, Dr. H. Leffmann, Dr. W. Pepper, Jr., Dr. J. Neff, and Dr. Coplin; while among the friends of and contributors to the journal during the time I edited it, were such men as Professor Keen, Professor Osler, Professor Welch, Professor J. Wm. White, Dr. Louis Starr, Dr. Mills, Dr. Der-cum, Dr. Sinkler, Dr. J. B. Deaver, Dr. Joseph Price, Dr. de Schweinitz, Dr. Randall, Dr. E. P. Davis, Dr. F. P. Henry, Dr. Frazier (dean of the University of Pennsylvania), Dr. Edward Martin, Drs. Dana, Starr, Sachs and Spitzka of New York, Dr. Putnam of Boston, and Dr. Jelliffe, editor of the *Medical News*. Surely among these names are to be found the names of some men who can be credited with an adherence to high ethical, literary and scientific standards!

The *Philadelphia Medical Journal* went out of existence "in the city of its birth" because the members of the editorial staff found that they could not control its policy against a small coterie of majority stockholders, and because they preferred to

see it die rather than pursue a commercial policy, such as now characterizes Dr. Gould's journal. It is because Dr. Gould has failed to see the true moral of this tale, or the true handwriting on the wall, that I have thought it worth while to call his and the world's attention to it.

JAMES HENDRIE LLOYD.

Venereal Disease and Prostitution.—Jordan (*Münchener medizinische Wochenschrift*, June 9) contends that, inasmuch as prostitution is the chief source of disease of the sexual organs, its abolition, as demanded by agitators, would be the surest way to destroy the infectious agent. But such a method is practically out of the question. Sexual conditions differ in the two sexes, the sexual appetite being usually much more intense in man than in woman.

The choice, for a large number of men, for six to ten years after puberty, during which period the sexual appetite is most imperious, lies between marriage and sexual satisfaction by means outside of marriage, with complete abstinence as the only other possibility. The assertion has been recently made that abstinence is by no means harmful, and should be practised in the struggle against prostitution and venereal disease. It should not be forgotten that men differ sexually. While some are indifferent, others are so sensitive that the inability to satisfy the sexual appetite means great harm, both physically and mentally. These two classes represent the extremes in this matter.

The dangers from venereal disease do not seem sufficient to deter men from taking the risk of infection. The author therefore concludes that prostitution is a necessary evil which must be attacked as the chief source of venereal disease.

To improve present conditions means, therefore, according to the author, that we should strive to relieve prostitution of its dangers. This may be either by a natural (reasonable?) limitation of prostitution, or by an improvement in the safeguards against infection. Social reforms can be of assistance in either direction; improvement in the living apartments of the lower classes, improved teaching on the relations of the sexes, limitation of the use of alcohol, and of out-door sports will all be serviceable, but the results will come very slowly. Far more effective will be the efforts to give security from acquiring infection. This can only come by eliminating from the possibility of sexual intercourse those who suffer with venereal disease, men not less than women; though with the women lies the greater danger. The more frequent and the more careful the examination of those who are diseased, the greater the possibility of lessening venereal disease; in other words, houses of prostitution should be under public regulation and inspection. The alternative is to permit open and free prostitution with far greater opportunity to disseminate disease.

The author is not impressed with the weight of the moral arguments which are urged against prostitution, and seems to question or deny the deplorable factors in the prostitute's condition. Or, if they are true, he seems to think that they would be removed if the State controlled the entire matter. In any case, the public should be educated upon this subject, and the false modesty which so often hinders free discussion should be done away with.



Fig. 1. The internal jugular vein and carotid arteries in normal condition



Fig. 2. The internal jugular vein removed.

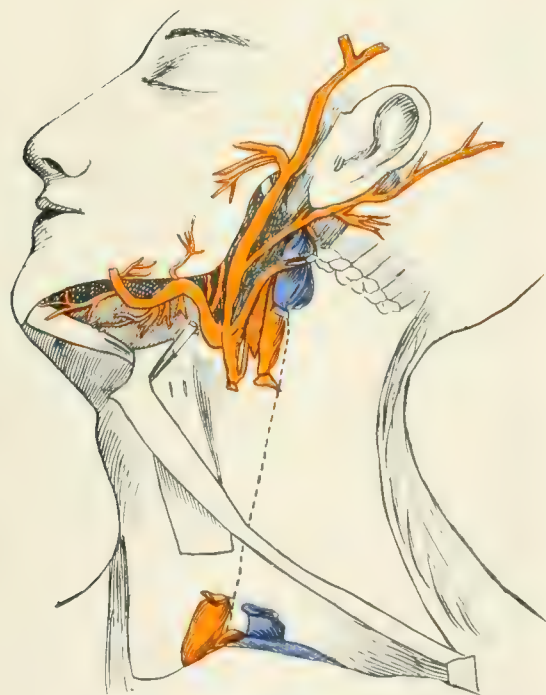


Fig. 3. The internal jugular vein and carotid arteries removed and the pneumogastric nerve dissected from the tumor. The dotted line indicates the position of the pneumogastric nerve.



Fig. 4. The carotid artery removed and the blood sent up the vertebral artery to the base of the brain.

THE STEPS IN DR. MACPHATTER'S OPERATION OF REMOVAL OF THE CAROTID ARTERIES AND JUGULAR VEIN



1. Bright's Disease from a Clinical Standpoint.
By J. R. BRADFORD.
2. The History of Medicine (Fitzpatrick Lectures, II).
By J. F. PAYNE.
3. Dysentery and Intestinal Hemorrhage.
By SIR LAUDER BRUNTON.
4. On the Fatal Effects of Chloroform on Children Suffering from a Peculiar Condition of Fatty Liver,
By L. G. GUTHRIE.
5. The Education of Physically Defective Children Under the London School Board,
By F. M. D. BERRY.
6. Perforation of the Gall Bladder; Treatment by Invagination,
By H. A. LEDIARD.
7. The Influence of Diet in Pregnancy on the Weight of the Offspring,
By D. N. PATON.
8. The Biological Action of Moulds on Arsenical Compounds,
By H. DE R. MORGAN.
9. The Ortol Reaction as a Means of Distinguishing Raw Milk from Boiled,
By C. R. DOUGLAS.

1. Bright's Disease.—Bradford states that while it is hard to draw a line between Bright's disease and nephritis, yet one fundamental point of distinction is the fact that in nephritis the morbid effects are limited to those seen in the urine; the quantity is diminished and there may be complete suppression; it contains varying quantities of albumin and often blood, together with hyaline, epithelial, and blood casts. Dropsy is not present in simple nephritis, no matter how acute. The following varieties of simple nephritis exist: (a) Transitory, such as is seen in most acute infective diseases; (b) embolic nephritis, due to renal infarction; and (c) toxic nephritis, due to the ingestion of substances like cantharides. Such a simple nephritis is not always a serious complication.

The fundamental characteristic of acute Bright's disease is the sudden occurrence of dropsy peculiar in its characters and distribution. The urinary changes vary; commonly they are not severe, though the urine may be loaded with blood. The greater number of the cases of chronic Bright's disease are chronic from the beginning. Two fundamental varieties may be recognized: The first corresponds more or less closely with large white kidney, the urine being scanty, and characteristic renal dropsy being present. Such patients often live for many years. Death is usually due to an inflammatory complication or to the effects of the anasarca. In the second variety of chronic Bright's disease the kidneys are small with diminished cortex and thickened capsule (red granular kidney). There is no dropsy and the urine is abundant. Death is usually due to uræmia.

All subjects of Bright's disease do not seek advice on account of obvious renal symptoms. Loss of flesh, pigmentation of the skin, ocular disturbance, etc., often lead to erroneous diagnosis. In exceptional cases, profuse hæmaturia may occur. In conclusion, the author discusses the action of various toxic substances on the renal tissues and the blood vessels, and the diagnosis of the different forms of Bright's disease, each from the other and from other maladies.

3. Dysentery.—Brunton states that the oldest method of treating dysentery which has been found at all successful is that by a large dose of calomel. The next treatment in point of time was castor oil—an exceedingly good one. Then came the administration of ipecacuanha, in doses of thirty grains of the powder. In the recent epidemic in South Africa the remedies most in favor were magnesium sulphate and sodium sulphate. In many subacute cases nothing acts so well as a change of scene or climate.

4. Chloroform in Children.—Guthrie again calls attention to the fact that chloroform is apt to produce fatal after-results in children who suffer from a peculiar condition of fatty liver. He first advanced this view nine years ago, but it was not generally accepted; the cause of death in his cases was attributed to carbolic acid poisoning or fat embolism, rather than to chloroform. In this article he reports a further series of four cases, all of which came to autopsy, and which seem to prove the following points: (1) That neither carbolic acid nor fat embolism plays any part. (2) That the severity of the operation cuts no figure. (3) That the only pathological condition commonly found post mortem is an intense fatty degeneration of the liver. (4) That the only other common circumstance was the administration of chloroform. It seems probable that in these cases the liver, being previously to the operations in an advanced stage of fattiness, was on the verge of functional inadequacy. Chloroform, by decreasing the already deficient oxidation, aggravated the condition of fattiness, and so lowered the hepatic functions that ptomaines or toxins escaped into the general circulation. Further, it prevented the elimination of these poisons by the urine.

7. Diet and Fœtal Weight.—Paton's observations on guinea pigs warrant the conclusion that the size of the offspring depends very directly upon the diet and nutrition of the mother during pregnancy. While this explains the easy labors among the healthy lower classes, it also probably helps to explain the very high infant mortality among the very poor. The nourishment of the maternal tissues seems to take precedence over the nutrition of the fœtus. The better the condition of the maternal tissues, the greater the growth of the young *in utero*.

8. Mould Test for Arsenic.—Morgan has utilized, as a test for arsenic, the fact that when certain moulds grow in the presence of arsenic, they emit a garlic odor due to arseniuretted hydrogen. These moulds are exclusively *Penicillium glaucum*, *Uromyces glaucus*, and *Uromyces arvensis*. The poisonous effects of arsenical wall papers are due to the growth of these moulds on the paper, with the evolution of the toxic gas. As a test for arsenic, Morgan finds them more interesting than useful. There are three great drawbacks: (1) That it is not a quantitative test; (2) that the smell of garlic is liable to be overpowered by the smell of the substance tested; and (3) that it is not constant in its results.

9. Ortol Reaction for Raw Milk.—Douglas calls attention to the fact that the ortol reaction is of no value in distinguishing raw milk from pasteurized or "sterilized" milk—i.e., where the temperature of the milk has not been raised above 75° C. Above 75° C. the reaction fails to appear. Ortol (ortho-methyl-amino-phenyl sulphate) when added to raw unboiled milk, together with a drop of weak peroxide of hydrogen, develops a very deep reddish-pink color throughout the fluid. Boiled milk or milk which has been heated to 75° C. does not give the reaction.

BRITISH MEDICAL JOURNAL.

July 2, 1903

1. Cancer of the Prostate and the Selection of Cases for Suprapubic Prostatectomy.

By REGINALD HARRISON

2. A Sixth Series of Cases of Total Extirpation of the Prostate for Radical Cure of Enlargement of That Organ.

By P. J. FREYER.

3. Some Points in the Pathology and Treatment of Prostatic Obstruction, With An Account of Thirty-three Operations for Its Removal.

By W. B. CLARKE.

4. The Life-Span of *Filaria medinensis*.

By SIR P. MANSON.

5. The History of Medicine (Fitzpatrick Lectures. II).

By J. F. PAYNE.

6. Muscular Movements and Their Representation in the Central Nervous System (Croonian Lectures. IV).

By C. E. BEEVOR.

7. Protruding Auricles Treated by Operation.

By T. G. OUSTON.

8. Note on the Operation for Cleft Palate.

By C. P. CHILDE.

1. Cancer of the Prostate.—Harrison believes that carcinoma of the prostate is far more common than is generally held. Its recognition is of the greatest importance; prostatectomy for malignant disease is not only useless, but dangerous, in that it promotes extension of the disease and involvement of surrounding tissues. Cancer of the prostate is not infrequently met with in younger persons than those usually the subjects of prostatic hypertrophy. It may occur at about the age of fifty, corresponding in this respect with mammary cancer. It is usually associated with lumbar and sciatic pains, and, later on, involves the chain of glands in the groin, including the femoral which it indurates. Rectal examination shows the gland to be of stony hardness and marked fixity. Slight hæmorrhages are occasional, but serious urinary alterations and obstruction to catheterism are often delayed. There is usually loss of flesh. The progress of the disease is generally slow and the local symptoms slight. On the other hand, the adenomatous prostate, which is best suited for treatment by prostatectomy, attains a much larger size, is not so fixed, and, though firm and bossy to the touch, lacks that feeling of stony hardness so characteristic of cancer. It projects into the bladder cavity, much more than cancer of the prostate does, and the most general arrangement of the adenomatous masses is: (1) A collar-like general enlargement of the prostatic ring encircling the urethra; (2) an enlargement of the two lateral

lobes, thus flattening the urethra from side to side; (3) an enlargement of the posterior or middle lobe, either as a sessile, rounded, swelling under the apex of the trigone, or with a thick pedicle closely resembling a fibropapilloma; or (4) a combination of any or all of the preceding varieties.

The cystoscopic appearances vary according to the direction of the growth.

Though a deliberate prostatectomy is not advisable in cancerous cases, yet often operative intervention is called for, especially where obstruction produces changes in the contents of the bladder. As regards treatment for the cancerous condition itself, the author has used the x rays and the Finsen light in two cases with apparently excellent results. Pain is alleviated and the further development of the growth checked.

2. Total Prostatectomy.—Freyer reports the details of a further series of fourteen cases of enlargement of the prostate, in which he performed total extirpation according to the method introduced by him. In thirteen cases the operation was successful, the patients recovering. In the one fatal case, in which the patient died of pneumonia, he was very feeble and his kidneys were diseased.

3. Prostatic Obstruction.—Clarke states that in many cases of prostatic obstruction there is no enlargement of the prostate. Adenomatous tumors in various stages of growth are not the only cause, and his ætiological classification of cases of prostatic obstruction is as follows: (1) Adenoma—ordinary hypertrophy. (2) Sclerosis of the prostate, caused by a chronic inflammatory process which has gone on to sclerosis and destruction by strangulation of the prostatic gland elements. (3) The presence of a considerable number of enlarged veins in the prostate. (4) Inflammation and congestion of the mucous membrane surrounding the urethral orifice. The treatment of prostatic obstruction varies according to its causation. The author reports thirty-three cases, divided into six series, as follows: (1) Prostatectomy—McGill's operation; (2) the removal of pedunculated middle lobes; (3) prostatectomy in two stages; (4) shelling out of adenomata; (5) partial removals of fibrous prostate; and (6) operations on vascular prostates. Of the thirty-three patients only three died, and these were all among the earlier operations. With growing experience this mortality should be further reduced.

4. Guinea Worm.—Manson reports two cases which show that in cases of *Filaria medinensis*, or guinea worm, at least one year, less the three to six weeks necessary for the preparatory metamorphosis in cyclops, must elapse between the date of infection of the human host and the appearance of the mature embryo-emitting worm at the surface of the body; and, further, that the season of infection is correlated to animal recurrence of certain hydraulic and thermic conditions favorable to cyclops and to the evolution of the parasite in that crustacean. The cases were those of two Europeans who had become infected on the upper Nile, just one year previously to the appearance of guinea worms on the surface of the skin.

7. **Protruding Auricles.**—Ouston recommends the following operation for protruding auricles: A D-shaped piece of skin, $\frac{3}{4}$ inch by $\frac{1}{2}$ inch, is dissected up and removed over the most prominent convexity of the auricle; it separates easily except where the small transversus and obliquus intrinsic muscles are attached, these latter appearing to be fibrous tissue rather than muscle. The corresponding underlying piece of cartilage is cut round vertically to its surface, and the separation of its anterior surface from the front skin is effected by a small periosteal separator and knife. The pinna then becomes flaccid, and on pressing it backward on to the skin over the mastoid process, an accurate impression of the raw surface is mapped out in blood; this area of skin is removed, and the posterior edges of the two raw surfaces are united by fine sutures. In a severe case anything less than free removal to the extent of taking all spring out of the auricle will result in failure.

BERLINER KLINISCHE WOCHENSCHRIFT.

June 8, 1903.

1. A Case of Severe Intestinal Self-Intoxication.

By STUERTZ

2. On Certain Remarkable Forms of Tumors in Animals. Especially Benign and Cancerous New Growths in Cold Blooded Animals, By L. PICK AND H. POLL.

3. The Treatment of Accidents and Neuropathology in their Different Relations, By P. SCHUSTER.

4. Concerning the Becquerel Rays and their Physiologico-Pathological Significance, By E. S. LONDON.

5. On the Treatment of Pulmonary Phthisis, By L. DANIELIUS and TH. SOMMERFELD.

1. **Intestinal Self Intoxication.**—Stuertz says that the ætiological importance of abnormal digestive processes in the digestive canal in relation to severe disease of the nervous system has been recently demonstrated. The most important nervous disturbances in this connection are epileptiform attacks, disturbances of consciousness, violent headache, paræsthesiæ, feeling of great anxiety, and acute psychoses; and their relation has been shown in connection with clinical observation. Attempts to isolate the harmful toxins in such cases have thus far been unsuccessful. The urine, in almost all cases, contained indican, and sometimes acetic acid and acetone. In one of Ewald's reported cases of intestinal self intoxication there was extensive nervous disturbance resulting from stomach indigestion, and in another from intestinal indigestion.

Jaksch has frequently stated that symptoms of meningitis in children are not rare as the result of indigestion and constipation, and that they may usually be cured by calomel. In the author's case which is recorded in this article there were also the phenomena of pseudomeningitis and they seemed to be due to stomach disturbance and constipation; for twelve days there was also well marked bradycardia. The patient was treated with calomel, intestinal and stomach irrigation, and careful diet. The patient was seventeen years old and was sick twenty-four days.

2. **Tumors in Animals.**—Pick and Poll point out that there are certain animals in which real

new growths occur, especially sarcomata and carcinomata. The authors' first observation relates to the occurrence in mammals, especially in the domestic animals, horses, hogs, sheep, cattle, dogs, cats, goats, rats, and mice, of malignant tumors, and especially carcinomata. Such diseases do not occur in animals in the wild state and rarely in those which are in zoological gardens.

Johns and others have remarked that carcinoma in herbivora was far more rare than in carnivora. Cancer in mice is no longer a rarity and a very fine specimen taken from the skin at the top of the left scapula of a white mouse, which developed in three weeks, was shown by the authors to their class.

Another specimen was the stomach of a dog containing a series of tumors caused by the presence and activity of a somewhat uncommon parasite, *Spiroptera sanguinolenta*, a small worm which resembles *Ascaris canis*. In birds, cancerous tumors rarely occur; cancer of the liver and of the ovaries has been reported in chickens. It is possible that some of the cases reported have been cases of tuberculosis which may be mistaken for cancer, especially with new growths in the liver, for tuberculosis presents a certain degree of resemblance to cancer, especially in its outward appearance.

Heretofore, our knowledge in regard to malignant growths in cold blooded animals, including fish, amphibia and reptiles, has been entirely negative. Such growths are certainly very rare, but they have been demonstrated by the authors, as well as benign tumors, and those which were questionable. One case of the latter variety was shown, the animal being a salamander with a tumor as large as a hazel nut, on the left side of the neck. The diagnosis was not positive; it had resemblances to both benign and malignant tumors.

3. **Accidents and Their Nervous Sequelæ.**—Schuster points out that since 1885, in Germany, it has been a daily experience with physicians to examine those who have been subjected to accidents, especially with regard to their ability to work. The great variety of cases has resulted in a rich and valuable literature.

This new branch of knowledge has been of special value to the neurologists. The injuries of the brain and spinal cord, especially the hæmorrhages of the brain and epilepsy, which are of such common occurrence, become intelligible through the assistance of the neurologists. Many of the diseases of the spinal cord, such as anterior poliomyelitis, multiple sclerosis, etc., are often directly traceable to a traumatic cause. Fürstner-Nonne has described pseudospastic paresis with tremor, also certain forms of deformity of the vertebræ. Indeed the number of organic and functional diseases which have been introduced by the science which relates to accidents is very large. Neurology has derived its greatest advantages from the study of the functional accident diseases. The knowledge of the nature and phenomena of hysteria has been advanced by the study of the traumatic diseases. Hysterical sclerosis, hysterical

hemiplegia, contractures in connection with the cranial nerves, hysterical spasms, and similar diseases have all become more intelligible by means of the new science.

The author looks for great usefulness as the result of the new specialty, just as the science of pathological anatomy has been built up and made very useful as the result of carrying out the scheme for making and recording the findings of autopsies as laid down by Virchow. It means that the details relating to accidents will be carefully and exactly defined by those who examine the patients, and that the treatment of such conditions, especially in connection with nervous diseases, will become more precise and more systematic than under previously existing conditions.

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

June 11, 1903

1. Investigations on Human Perspiration,
By L. BRIEGER AND G. DRESSELHORST.
2. The Most Recent Method of Operation in Cases of
Incurable Vesicovaginal Fistula, By E. ROSE.
3. Disease of the Lateral Columns and Spastic Spinal
Paralysis, By MAX ROTHMANN.
4. Contribution to the Differential Diagnosis of Diseases
of the Œsophagus and Stomach, By HANS ELSNER.
5. An Unusual Condition in Connection With Cholestea-
toma and Sinus Thrombosis, By F. GROSSMANN.
6. The Preparation of Frozen Sections for Microscopical
Diagnosis With Anæsthol, By RUDOLPH KATZ.
7. The Œtiology of Cleft Hand,
By MAX DAVID AND S. LIPLIAWSKY.
8. Public Review of the Subject of the Care of the Sick,
By ZIMMER.
9. The New Division for the Study of Cancer in the First
Medical Clinic at the Royal Charité Hospital in
Berlin.
10. Professor Dr. SÄXER, By F. MARCHAND.

1. **Human Perspiration.**—Brieger and Dresselhorst say that the molecular concentration of the perspiration of healthy individuals is variously estimated at -0.237° to -0.590 . The molecular concentration of the perspiration in diseased individuals was investigated by Strauss in thirty cases, and he found that the freezing point was below that of the blood serum, and the quantity of sodium chloride less than 0.5 per cent. The results necessarily vary with the condition of the individual and the surroundings. The intensity of evaporation of the perspiration is also an important point in connection with therapeutical procedures. This will vary according to the procedure which may be adopted. In the electric light bath it is very marked. It is not surprising that one can find very great concentration from evaporation in the electric light bath in the case of sick persons who do not perspire freely. In a case of chronic nephritis the molecular concentration was found to be -0.497 , while that of the perspiration collected in a rubber sleeve, in the same individual, was -0.292 .

2. **Vesicovaginal Fistula.**—E. Rose refers to his frequent contributions to this subject and also

to the fact that Dieffenbach, in 1836, gave the first impulse, at Berlin, to the movement which was taken up so successfully by Simon, Bozeman, and others. There are still three conditions which are essential to success: 1. The operation must be technically perfect—that is, the line of suture must be watertight, no fistulæ must be left behind. 2. The cure must result in restoration of the bladder function. 3. The cure must be a permanent one.

The plan of preparing the edges of the fistula, as originally devised by Dieffenbach, has not been carried out by others, nor was it adhered to by Dieffenbach himself, which probably accounted for his many failures. He advised originally that the combined wall of bladder and vagina be split apart, this method being afterward taken up in America. Also that the bladder be wounded as little as possible and that the bevelled border of the vaginal wound be made as wide as possible. He also advised that the sutures be so passed that they would be protected from the urine by the unwounded portion of the bladder, and would also prevent the entrance of blood from the wound into the bladder; also that they should never perforate the mucous membrane of the bladder. The use of the permanent catheter came at a later period.

Simon advised extensive paring of the bladder as well as of the vaginal fistula. He often had failures, and the fistula being necessarily larger than at first, the patient was made worse. The reason why an operation for fistula, even though properly done, so often fails is, in part, the extreme mobility of all the tissues which are involved, in breathing, coughing, vomiting, urinating, and defecating; and, in part, the insufficiency and the tension of the tissues.

The most difficult cases to treat are those in which the fistulæ are so large that the ureter is involved, or a portion of the lower wall of the ureter is cut away in preparing the fistula for closure. They often refuse to heal after many operations, and the author feels justified in such cases in closing the vagina and making an opening into the rectum, allowing urine and menstrual blood to make its exit by this channel. Several patients have been operated on by the author in this way, and have been able to earn their living, and to live with comfort such as was not possible with the vesicovaginal fistula.

3. **Spastic Spinal Paralysis.**—Max Rothmann points out that in 1875, Erb referred to a complex of spinal symptoms due to chronic disease of the cord which begins with abnormal sensations in the legs, and is followed by weakness, languor, and stiffness in the legs. There is no disturbance of sensibility, no trouble with the bladder and rectum, but gradually a peculiar gait is developed, the legs and feet being dragged along and the body apparently making a series of hopping movements. The legs gradually get weaker, the muscles become more and more tense, the tendon reflexes more pronounced, while the arms remain comparatively unaffected. This disease, called spastic spinal paralysis by Erb, is the same as the spasmodic dorsal tabes of Charcot. Berger described it as a chronic disturbance of nutrition in the lateral columns of the cord. Opinions are still divided as to the real ex-

istence of this form of spinal disease. Erb and Strumpell regard it as a distinct form of spinal disease, the anatomical proof being that there is a real systemic disease, namely, a double sided affection of the pyramids of the lateral columns; while von Leyden, Marie, and others question the propriety of regarding it as a distinct disease.

Woroschiloff came to the conclusion that the sensitive and motor tracts in the lateral columns pass upward from their roots to the brain, and in such a way that the lateral column of each half of the cord contains fibres which produce reflexes and movements for both legs. Hence, the motor fibres are mingled with the sensory in all portions of the lateral columns. This conclusion which was based upon very delicate experiments upon dogs is not now regarded as tenable. The reparative changes as to function are so marked in many cases in which paralysis has occurred, that it seems probable that a few fibres are sufficient to carry on motor and sensory operations. This is seen in cases in which paralysis seems to be complete, possibly for a considerable period. We are, therefore, taught that the value of experiments upon animals in questions like those which are under consideration must not be too highly esteemed.

In regard to the pathological evidence as to spastic spinal paralysis, it must be admitted that most of the cases which have been diagnosticated clinically as such have not verified the diagnosis upon autopsy.

6. Frozen Sections for Microscopical Diagnosis.—Katz remarks that, in 1901, Bruno Wolff recommended ethyl chloride as a means for the rapid preparation of frozen sections for microscopical study. The ethyl chloride is allowed to flow upon the tissue drop by drop, and the tissue freezes much more quickly than with ether alone, a smaller quantity also being necessary. Quite recently anæsthol, a substance similar to ethyl chloride has been suggested for a similar purpose. It is a solution of methyl chloride in ethyl chloride, a clear, volatile fluid which boils at 4° C. Its volatility is such that it must be kept in hermetically sealed tubes. The author employs it in the preparation of fresh specimens obtained by cutting of the uterus, or by excision from the cervix, or for specimens preserved in alcohol. The tissue for examination suffers no change from the freezing action of this substance.

7. Cleft Hand.—David and Lipliawsky state that this deformity is a very rare one. Kümmel found but 22 cases on record, with 42 of similar deformity of the foot. The deformity is congenital, and consists in the absence of the middle finger and the corresponding metacarpal bone, the hand being thus divided into two unequal parts. The remaining fingers may be joined together in a firm *syndaktylism*. The deformity is caused by the pressure and traction of amniotic bands *in utero* during the developmental period. One or both hands may be thus affected, and one or both feet as well. It is apt to be repeated in certain families, and males, rather than females, are usually the subjects. The description of a typical case of this deformity follows.

REVUE DE CHIRURGIE.

June 10, 1903.

1. Calcareous Bony Atrophy Following Traumatism,
By A. IMBERT AND J. GAGNIÈRE.
2. Concerning the Diminution of the Distance from the Cricoid Cartilage to the Sternum as an Evidence of Sinking of the Cervical Column.
By A. FASQUELLE.
By X. DELORE.
3. Fibroma of the Thyreoid Body.
4. Ampullar Dilatation of the Veins,
By P. G. GUYA.
5. Concerning a Method of Approaching Subdiaphragmatic Abscesses of the Liver,
By PACHECO MENDES.
6. A Case of Cyst of the Pancreas, With Remarks on Its Pathology and Surgical Treatment.
By CHARLES G. CUMSTON.

1. Calcareous Bony Atrophy Following Traumatism.—Imbert and Gagnière state that a high degree of atrophy, the skiagraphic characteristic of which is an increase of transparency, may be present in bones as a secondary result of traumatism to other contiguous bones. The question arises whether the bony atrophy which is seen with tuberculous or syphilitic disease of the bones may not be a secondary result of a primary affection from which it is entirely distinct. A change in the shape of the bones is caused by these diseases, but for a similar limited change, for example, of the lower extremity of the tibia, a general increase in transparency will be observed in the entire skeleton of the foot. It is, therefore, possible that at a certain period the extensive bony atrophy may be, not an indication of the generalization of a tuberculous or syphilitic disease, but only an indirect consequence of this disease, just as the bony atrophy in another condition may be an indirect consequence of a traumatism sustained in a more or less remote region. Such considerations may be of practical importance to the surgeon. The authors summarize their paper by stating that skiagraphic exploration furnishes for the study of the remote consequences of fractures and contusions, as well as for those of the evolution of diseases of the bones, new elements based upon the objective determination of the existence of bony atrophy. It is quite possible to take advantage of the presence of this atrophy in connection with medicolegal questions, which may arise as the result of accidents during child birth, and it therefore follows that all such cases should be subjected to skiagraphic exploration, however simple the consequences of the primary accident may have been. On the other hand, it may be that the work of the surgeon is not completed when, in case of a fracture or a luxation, the one is reduced and the other clinically consolidated. Still it will not be useless, in cases in which skiagraphy reveals a bony atrophy secondary to a traumatism, to institute treatment for improving the nutrition of the skeleton and obtaining as often as possible a complete return to the normal physiological condition.

3. Fibroma of the Thyreoid.—Delore narrates an interesting case, with excellent accompanying photographs before and after the removal of the tumor. A fibroid is a rare form of thyreoid tumor. In the author's case the tumor was a single one, and

the tissue was identical with that of uterine fibromas. Such tumors may be encapsulated or diffuse, and are correspondingly easy or difficult of removal. The author warns one against mistaking adhesions connected with the tumor for portions of the tumor itself. This form of tumor must be distinguished from adenoma, and especially from the malignant tumors, whether of the epithelial or the connective tissue class. The treatment consists in removal by enucleation or morcellation. The dangers from hæmorrhage and anæsthesia are not great. The prognosis is good. Cicatrization takes place rapidly, myxœdema has never been observed as a result. In diffuse fibroma the operation is very difficult and the prognosis is usually bad.

4. Ampullar Dilatation of Veins.—Guibal considers this condition common. It may be congenital or acquired. It is more common in adult males. It is often the result of traumatism. The saphena vein is most frequently attacked, especially near its termination. Less frequent are dilatations of the femoral in Scarpa's triangle, the external jugular, the popliteal, the internal jugular, and the subclavian. The tumor may be as small as a grain of wheat or larger than a hen's egg. The dilatation may involve the entire circumference of the vessel, or only one of its sides; it may be in the form of a pendulous sac, especially when congenital.

The evolution of such tumors shows no regularity. They may remain stationary for a long time, and cause no discomfort. They may increase in size suddenly from traumatism or without determinable cause, especially in tumors of the neck, which may reach a large size. The tumors of the lower extremities are seldom larger than a hen's egg, and never get well spontaneously, while those of the neck and those of congenital origin sometimes do. Of the possible complications Guibal mentions infection, coagulation, and saccular phlebitis, but rupture has never been observed. The infectious germs play the same part in these tumors as in phlebitis in general. The dilatation caused by stasis of the blood and change in the walls of the vessel afford a favorable location for the attacks of the germs and sometimes limit their action. Coagulation may be limited to the tumor or may extend above and below it. A direct injury to the tumor may be followed by an immediate phlebitis, which may run the usual course of that disease. The vessel is never restored to its normal state. The tumor may undergo fibrous transformation or there may be suppuration of its contents. The danger of embolism is that which is most to be feared, for this may lead to a fatal accident.

5. Subdiaphragmatic Abscess of Liver.—Mendes insists that a free incision should be made early, without waiting for the development of incurable visceral complications. Whatever method of operation is followed perfect asepsis is indispensable. Subdiaphragmatic abscesses may be approached by the abdomen or by the pleura. Difficulties and dangers attend the abdominal method, one danger being that the pus may flow into the peritoneal cavity with rapidly fatal result. Since the pus in such abscesses is contiguous to the diaphragm and to the pleural cul de sac, it occurred to the author that these two facts might be utilized in an operation

which was performed by him. He made an incision 12 centimetres long in the eighth intercostal space, from the sternal cartilage, pushed back the pleura as far as the seventh intercostal space, denuded the eighth and ninth ribs of their periosteum, resected them, made an incision 5 centimetres long in the diaphragm, evacuated 423 grammes of pus, carefully curetted the abscess wall, and placed two large drainage tubes in the cavity and the external wound. The wound was entirely closed in a month. The advantages of this procedure over the abdominal route are a shorter and more direct approach, a better opportunity for drainage, far less shock, less danger from hæmorrhage and from injury to the abdominal viscera. The lips of the incision into the abscess should be united to the skin wound. The pleura not having been opened, there is no danger of infection and pneumothorax. The presence of adhesions between the abscess wall and the diaphragm facilitates the operation, but the latter is not contraindicated, even should no adhesions be present. In the latter case it is recommended to fix the serous covering of the liver to the lips of the incision in the diaphragm before opening the abscess.

6. Pancreatic Cysts.—Cumston classifies these neoplasms as follows: (1) Retention cysts, due to obstruction of the duct. (2) Cystic adenomata, of the pancreatic parenchyma. (3) Retention cysts which take their origin in glandular vesicles and in the smaller excretory canals, the lumen of which has become contracted by chronic interstitial pancreatitis. (4) Pseudocysts, which originate in inflammatory or traumatic lesions of the pancreas and cause retroperitoneal hæmorrhage or an accumulation of blood in the omental bursa. The great majority of retention cysts are of small size and rarely cause serious symptoms. The second type is analogous to the cyst of the ovary, and is a true new growth. The development is slow, without inflammation, and resembles the development of the multilocular ovarian cyst. The cysts which are not connected with excretory canal of the pancreas are usually in the tail of the organ, may be quite large, and contain blood which may be associated with inflammation or with simple rupture of blood vessels. The pseudocysts are probably caused by traumatism in the upper portion of the abdomen, hæmorrhage having occurred in the peritoneal fold of the omentum, near the pancreas, and may perhaps have included the parenchyma of the pancreas. Other causes for these tumors are gastroenteritis and infectious disease. The treatment for cysts of the pancreas consists in incision and drainage, or extirpation. The incision should usually be in the median line of the abdomen, exceptionally over the most prominent part of the tumor. It is well to attach the cyst wall to the abdominal wall or to the parietal peritonæum before incising it. After emptying the cyst and irrigating its cavity with saline solution, a large glass drainage tube should be introduced to the bottom of the cavity and surrounded by sterilized gauze. If the cyst is not extirpated, another tumor may subsequently develop. If drainage is resorted to, a fistula may result which may give rise to various complications, but in most cases the fistula will eventually heal.

PEDIATRIE PRATIQUE

May 1, 1903.

1. Gangrenous Appendicitis, General Purulent Peritonitis, Perforation of the Diaphragm and Left Lung.

By ALBERT JOSIAS.

2. Importance of Infantile Surgery in General Practice,

By E. KIRMISSON.

3. Alimentary Hygiene of Nurslings,

By E. AUSSET.

1. **Gangrenous Appendicitis.**—Josias narrates the case of a girl, aged fourteen years, who had suffered from an unrecognized perforation of a gangrenous appendix, resulting in a general purulent peritonitis. When admitted to the hospital, the generally cachectic appearance, depression, and diarrhœa, favored the diagnosis of tuberculous peritonitis. A few hours before death the child vomited pus, which made the suspicion of a visceral abscess a strong one. The autopsy revealed the abdominal condition referred to, a perforation of the diaphragm on the left side, which had given rise to a bronchopneumonia at the left base with a perforation of the pus into the left bronchus. This unusual termination is contrasted by the author with the more frequent subphrenic and hepatic abscesses, empyema or abscess of the lung, which are frequently encysted.

REVISTA DE CIENCIAS MEDICAS DE BARCELONA.

No. 3, 1903.

1. Some Symptoms Seen in Certain Diabetic Patients from the Sudden Withdrawal of Carbohydrates.

By M. RIBAS Y. PERDIGO.

2. Concerning Cystitis Which Resists Treatment,

By M. BARTRINA.

1. **The Carbohydrates and Diabetes.**—Ribas Y. Perdigó holds that the regulation of the diet is the most important element in the treatment of diabetes mellitus and states that in his practice he rigidly excludes carbohydrates from the diet in the outset of the disease, and allows a gradual return to a limited amount of starchy food as glycosuria decreases and as the individual need of the patient demands. He reports a case, however, in which pursuance of this plan resulted in unusual and distressing symptoms. In this instance, within twenty-four hours after withdrawal of all starchy and saccharine foods and the administration of a preparation containing sodium bicarbonate, tincture of opium and Fowler's solution, thirst subsided and polyuria was checked; but with the subsidence of these symptoms, headache, nausea and vomiting appeared. Believing the opium to be responsible for this syndrome, it was withdrawn; but to no avail as cephalalgia persisted to a distressing degree, as did the nausea also. A return to starchy food in the form of bread was advised, upon the supposition that the symptoms were due to the profound and rapid disturbance of nutrition and the sudden checking of polyuria with consequent failure to eliminate the toxic products of a perverted metabolism, before freely eliminated by the urine. The immediate return of a moderate diuresis and coincidental cessation of cephalalgia and vomiting, with the change of regimen, seem to leave no room for doubt that the distressing symptoms were indeed those of selfintoxication from retention. The les-

son that the author draws from this experience is that these disturbances—transitory in the present case—might attain a severity which would be disastrous when diabetes is associated with another morbid condition, such as nephritis, fatty degeneration of the heart, arteriosclerosis, etc., and that in such cases a more cautious therapeutics should be instituted.

2. **Rebellious Cystitis.**—Bartrina emphasizes the necessity for seeking the underlying cause of cystitis, and calls attention to the frequency with which a rebellious case yields upon the discovery of the condition to which it is secondary; such as calculus, foreign body in the bladder, prostatitis, narrowing of the urethra, etc. He holds that the polyuria present in many renal conditions may, by the over activity induced in the bladder through the renovesical reflex, bring about a congested condition of its wall, which renders it vulnerable to the slightest irritation and predisposes to the development of cystitis. A plea is made by the author for the routine examination of the upper urinary apparatus in all rebellious cases of cystitis; upon the ground that many renal affections determine, at their onset, lesions of the ureters and bladder. Especially does he find this true in renal tuberculosis; and he cites many tuberculous cases in which nephrectomy has been followed by immediate subsidence of cystitis and restoration to health.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

May 24, 1903.

1. A Case of Quinine Hæmoglobinuria in a Malaria Patient, By MERCURIO CANDELA.
2. Axillary Adenitis in the Early Diagnosis of Tuberculosis, By S. CERAULA.
3. Can Pulmonary Tuberculosis Become Arrested and Be Cured by the Intervention of Another Infection? By TORINDO SILVESTRI.
4. Situs Viscerum Inversus. By LAMARI.
5. Physiological Solutions, By GIUSEPPE URSO.
6. Contribution to the Study of Visceral Herniæ, By DOMENICO POMARA.
7. Report of the Surgical Department of Galliera Hospital. Genoa.
8. A Case of Congenital Ectopia of the Heart in a Living Fœtus, By GIACOMO MATTEUCCI.

1. **Quinine Hæmoglobinuria in Malaria.**—Candela reports a case in which the administration of one gramme of quinine during the accesses of an æstivoautumnal malaria produced hæmoglobinuria with fever. The use of quinine in smaller doses and between the attacks did not produce any toxic signs. The author emphasizes the fact that quinine hæmoglobinuria occurs only in the æstivoautumnal types, that the malarial infection in these cases is always of some standing, and that quinine administered to these patients at times does not produce any toxic effects. Albuminuria precedes and succeeds hæmoglobinuria, and the latter is preceded, accompanied, and succeeded by urobilinuria, which appears later and persists longer than the albuminuria. No biliary pigment is found in these urines. The author agrees with Grocco, who warns against mistaking a urine colored deeply by urobilin for a hæmoglobinuria.

2. **Axillary Adenitis in Incipient Tuberculosis.**—Ceraulo in eleven patients with incipient tuberculosis found only one with axillary adenitis. The presence of swollen glands in the axilla was characterized by Fernet, in 1899, and by other authors since then, as a sign of incipient tuberculosis. Ceraulo doubts the frequency of this sign, but calls attention to two other signs of latent tuberculosis; namely, phosphaturia and cardiac palpitation. In seven of his eleven patients he found phosphaturia, and in nine palpitation.

3. **Curing Pulmonary Tuberculosis by a Secondary Infection.**—Silvestri says that pulmonary tuberculosis can be arrested and cured by the action of a secondary infection. He cites examples of tuberculosis disappearing after an attack of erysipelas of the face, and of smallpox. He reports two cases in which he asserts that secondary infection by means of streptococci so modified the soil of the original infection that it rendered the further growth of the bacillus of tuberculosis impossible.

5. **What is a Physiological Solution?**—Urso says that there is no such thing as an artificial physiological solution. The only real physiological solution is the serum of the blood, or still more exactly the plasma. The density of the blood not only varies in each species of animals, but in each individual animal, and therefore if a physiological solution is defined as isotonic with the serum of an animal, it must vary for each individual. A solution of fixed composition should not be used in hypodermoclysis, because under the influence of pathological processes the density of the blood changes all the more markedly. Engelmann's definition of a physiological solution as one of 0.9 per cent. is therefore incorrect.

ROUSSKY VRATCH

May 31, 1903

1. On Parasitic Pernicious Progressive Anæmia and the So-Called Cardiac Murmurs of Anæmia,
By V. F. ORLOVSKY (*Continued*).
2. The Bacillus of Eberth in the Roseola of Typhoid Fever,
By G. N. KAZARINE.
3. Hedonal as a Hypnotic,
By N. A. IURMANN.
4. A Case of Jaundice, By F. K. GEISSLER (*Continued*).
5. A Case of Removal of the Spleen and Talma's Operation in Ascites Due to Malaria,
By B. K. FINKELSTEIN.
6. Report of the Commission Appointed by the St. Petersburg Ophthalmological Society on the Classification of Glaucoma.
7. A Case of Local Ichthyosis, By S. V. ZNAMIENSKY.

2. **Typhoid Bacilli in Typhoid Roseola.**—Kazarinoff removed some blood from typhoid rose spots, and inoculated bouillon cultures with this blood. Of 17 specimens only four tubes showed a growth of typhoid bacilli. Two of the rose spots were one day old, and two were two days old when the blood was taken. In a second series of experiments he removed a rose spot from the skin with sterile scissors, incised the bit of skin, and placed it in a culture. Of 17 specimens of rose spots thus treated eleven showed a growth of the typhoid bacillus. A third series of rose spots was removed as a whole for histological examination. The pieces

were first thrown into bouillon and subsequently hardened in paraffin. In 12 out of 17 specimens the characteristic groups of Eberth's bacillus were found. Anatomically, roseola was found to be an inflammation of the papillary layer of the skin due to the invasion of the lymphatic vessels of the paillæ by the typhoid bacillus.

5. **Splenectomy and Talma's Operation in Malarial Ascites.**—Finkelstein reports what he believes to be the first case on record of the removal of the spleen and the artificial anastomosis of the portal circulation by Talma's method, in a case of malarial ascites with very large splenic tumor. The patient was an unmarried woman aged thirty-five years, who had suffered for a long time with malarial cachexia accompanied by a very marked ascites and an enlarged spleen. Arsenic was tried for some months, but this failing, the operations named were performed. The patient made a good recovery and increased in weight and improved in general health. At first there was a malarial febrile movement which yielded to the administration of arsenic and of subcutaneous injections of quinine.

6. **Classification of Glaucoma.**—The St. Petersburg Ophthalmological Society's Commission recommends the following classification: I. Glaucoma Inflammatorium (irritatum) (a) acutum, (b) chronicum. II. Glaucoma simplex. The latter includes cases in which the examination and the history do not show any signs of inflammation or irritation. The disease is very insidious and the vision and field of vision are gradually diminished while the intraocular tension is increased, but as a rule only slightly. The media of the eyeball remain clear.

7. **Local Ichthyosis.**—Znamiensky reports a case of local ichthyosis in a man aged twenty years. The eruption was apparently congenital, and was remarkable on account of being localized to certain spots, instead of being general as is usually the case. It was very nearly symmetrical, each lesion having another of the same size and shape on the corresponding part of the body on the other side. The front of the neck, the axillæ, the arms, the umbilical region, the loin, the groins and the inner surfaces of the thighs were affected. The disease was incurable.

BOSTON MEDICAL AND SURGICAL JOURNAL

July 16, 1903.

1. The Shattuck Lecture Before the Massachusetts Medical Society, June 9, 1903: The Sources, Favoring Conditions and Prophylaxis of Malaria in Temperate Climates, with Special Reference to Massachusetts,
By THEOBALD SMITH.
2. Subparietal Injuries of the Kidney,
By FRANCIS S. WATSON (*Concluded*).

1. **Malaria.**—Smith divides the consideration of his subject under three main headings, as follows: (1) The life cycle of the malarial parasite, the *Plasmodium vivax*, the parasite of tertian malaria.—From 1880 to 1895 investigators concerned themselves chiefly with the study of the malarial parasite in the human blood and the clinical inter-

pretation of its various appearances. From 1898 to the present time investigators have concerned themselves chiefly with the sexual reproduction of the parasite in the mosquito and with many questions of immunity and epidemiology. Little need be said of the results obtained during the first period as a full account of them will be found in any recent text book on medicine. The results obtained during the second period are not generally appreciated. The simplest way of illustrating what has been done is to study the life cycle of one of the malarial parasites. The author sketches the life history of the parasite of tertian fever. The parasite of tertian fever, in its earliest stages, appears within the red corpuscles. At the end of forty-eight hours the parasite, which has grown to be almost as large as the invaded cell, begins to undergo segmentation. From twelve to twenty small nucleated bodies, the so-called spores of the older writers, are thrown off into the general blood current. These spores, or merozoites as they are now called, invade the red blood cells and the process just described is repeated. The above cycle is the one of a sexual reproduction and is the one chiefly responsible for the symptoms of malaria. After a certain time the process just described takes a different direction. The merozoites, after entering the red cells, instead of developing into segmenting bodies develop into other bodies which do not segment. These are the male and female elements which later, in the body of the mosquito, go through the cycle of sexual reproduction. The products of the sexual cycle, when inoculated into man by the proboscis of the mosquito, give rise to the asexual cycle which clinically manifests itself as an outbreak of malarial fever. It will be seen, then, that the cycle of the malarial parasite in the blood of man comes to a standstill after an indefinite time, and that without the agency of another host, the mosquito, further development cannot take place. (2) The relation of the tertian parasite to the quartan and to the parasite of æstivo-autumnal fever. A majority of observers are agreed that the three forms of parasites belong to distinct species. A minority holds that there is but one form of parasite which becomes modified through environment and by the different degrees of immunity against which it has to contend. At present it is impossible to settle this question definitely. (3) Conditions under which the human being may become the source and carrier of malarial infection. Two conditions are essential for the propagation of malaria. (a) The infected human being. (b) Mosquitoes of the genus anopheles. At the present time a new doctrine, that of acquired immunity in malaria, is being widely discussed. The author inclines to the belief that the appearance of sexual forms in the blood of man should be interpreted as the beginning of immunity. The solution of the question of immunity is, however, still in its infancy. The problem is complicated moreover by many side issues still awaiting solution. Until these questions can be settled more definitely, than it is at present possible to settle them, it will be impossible to say under what conditions man may become the source and carrier of malarial infection.

2. Subparietal Injuries of the Kidney (Concluded).—Watson was led to make a thorough study of the subject by having had to treat six

cases. He has collected, formulated and analyzed the clinical data of 660 cases. Of these cases 25, including the author's 6 cases, are reported for the first time. It is manifestly impossible to attempt to summarize such a statistical study and the author warns the reader against drawing conclusions from only 660 cases. With this warning in mind, the following statistics of the results of treatment may be tentatively set down. The death rate attending the expectant treatment was exceedingly high. The best results were obtained by operations other than nephrectomies. The author's table showing this follows:

	Cases	Deaths	Mortality
Treated expectantly.....	27	8	27 per cent.
Treated by operations other than nephrectomy.....	99	7	7 per cent.
Treated by nephrectomy.....	115	25	25 per cent.
	487	113	

MEDICAL RECORD.

July 18, 1903.

1. The Struggle of Science with Old Age,
By J. BANDALINE.
2. The Clinical Importance of Albuminuria,
By HENRY H. SCHROEDER.
3. The Art of Increasing and Diminishing the Bodily Weight at Will,
By MAX EINHORN.
4. The Present Status of Subconjunctival Injections in Ophthalmic Therapeutics,
By CHARLES STEDMAN BULL.

2. The Importance of Albuminuria.—Schroeder believes that the ordinary practitioner lays too little stress on albuminuria. Thirteen years' experience in life insurance work has led him to believe that no cases can be considered as cases of "physiological" albuminuria. He quotes Lambert as saying that many applicants for life insurance, rejected fifteen to twenty years ago, are still alive, yet from four to five times more of such rejected applicants are dead than ought to be, according to the normal expectation of life in men of their years. The author does not believe that it is rational to wait, before making a diagnosis of chronic Bright's, until the classic symptoms of high arterial pressure, thickened arteries, and cardiac hypertrophy are evident. It would be as rational to wait for cavity formation before diagnosing pulmonary tuberculosis. Eight cases, taken from life insurance records, are reported, in order to illustrate the significance of so-called cyclical and transient albuminuria. All of these patients eventually died of Bright's. The author's conclusions follow: (1) It is not possible to determine the significance of albuminuria until the case has been under observation for some time. (2) Transient albuminurias are not significant unless they occur too frequently. (3) Persistent and cyclic albuminurias should always arouse suspicion and lead to investigation. (4) The urine as a rule will give the earliest indication of Bright's disease. (5) Careful observation of albuminuric patients should mean: (a) frequent examination of the twenty-four-hour specimens of urine; (b) frequent observation of the heart and blood vessels. These observations may have to be carried on for months or years. (6)

The most frequent causes of albuminuria are intemperance in eating, drinking, and working, and the gouty diathesis. (7) The mortality among albuminuric patients is large. They offer a reduced resistance to many diseases and are prone to develop Bright's.

3. The Body Weight.—Einhorn asserts that either of these objects may, in the great majority of cases, be easily attained. The benefits to be derived are discussed. His method for increasing the weight in thin people is carefully and gradually to overfeed them, at the same time regulating their exercise. The diet should be as liberal in variety as possible, and should be determined from a study of the patient's previous habits. The addition of definite quantities of butter and cream to the diet will often prove useful. To reduce weight he advises curtailing the diet and increasing the exercise. The heart must be carefully watched. The first thing to do is to ascertain the quantity and quality of diet that will keep the patient's weight stationary, and then gradually reduce and modify this diet until the desired result is obtained.

4. Subconjunctival Injections.—Bull reviews the various claims that have been put forward in favor of this method of treatment and concludes, that because the earlier claims were exaggerated, the method is now, unfortunately, regarded with considerable skepticism. In affections of the cornea, uveal tract, or retina, the author does not believe that the injection method has given any better results than the other methods of treatment. However, in several cases of orbital cellulitis of an infectious character he has obtained good results from subconjunctival injections of sublimate solution (1-1000). Herpes and interstitial keratitis have, in the author's hands, seemed to be favorably influenced by injections of a one-per-cent. solution of hetol sodium cinnamate.

AMERICAN MEDICINE.

July 18, 1903.

1. On Diseases of the Gall Bladder and Bile Ducts,
By C. A. EWALD.
2. Diseases of the Skin, By GEORGE J. BUCKNALL.
3. Tuberculous Ulceration of the Rectum and Anus,
By LEWIS H. ADLER, JR.
4. The Ætiology of Leucæmia,
By JOHN BENJAMIN NICHOLS.
5. Treatment of Eclampsia, By WILMER KRUSEN.
6. Scarlatinal Arthritis, By E. PALIER.

1. Diseases of the Gall Bladder and Bile Ducts.—Ewald reviews the ætiology and symptomatology of stones in the gall bladder, and gives the chief points to be kept in mind when making a diagnosis. The part of his paper that is of the most interest is his advice with regard to treatment. Internal treatment for cholelithiasis, etc., is very uncertain. Therefore, he only treats internally those patients in whom there is no fear of bad results from such treatment. He does not agree with those surgeons who consider immediate operation as the ideal mode of treatment in all cases of gall bladder disease. His routine method of dealing with such cases is as follows: During the acute inflammatory stage and during

colic he uses the well known methods of relief. In addition, he advises stomach washing, either with plain hot water, or with solutions of silver nitrate. Large quantities of hot water should also be drunk by the patient. In cases of acute severe infections he advises immediate operation. Patients subject to rapidly recurring favorable attacks should be treated internally. Unfavorable cases with recurrent attacks should be subjected to operation. In cases of long standing obstruction or compression jaundice he advises operation if the patient's condition will warrant it. A positive diagnosis of compression jaundice, whatever the cause, demands immediate operation. On the other hand, in cases of obstructive jaundice from stone, he believes that patients can wait before being operated on for more than the limit of five weeks, as set down by some surgeons. He has seen patients wait five and six months before undergoing operation. All patients that have once suffered from gall stones, whether they have undergone operation or not, should take precautions against a recurrence of their trouble.

3. Tuberculous Ulceration.—Adler considers the ordinary means of treating tuberculous ulcers of the rectum unsatisfactory. He has tried, in a few cases, local applications of an artificial gastric juice, made by adding a few drops of dilute nitrohydrochloric acid to a solution of pepsin. The results have been sufficiently encouraging to justify announcing the method. This proposed treatment was suggested by the following considerations: (a) That tuberculosis of the intestines is fairly rare in persons suffering from pulmonary tuberculosis, although numberless tubercle bacilli must be constantly swallowed. This has been explained by assuming that the tubercle bacillus is destroyed by the gastric juices. (b) Sormani has shown that the gastric juices from the stomach of the pig are capable of destroying not only the vitality of the tubercle bacilli, but also their form.

4. The Ætiology of Leucæmia.—Nichols' conclusions as to the ætiology of leucæmia may be summarized as follows: (1) Heredity, traumatism, and preceding diseased conditions can only be of secondary importance as factors in the ætiology of leucæmia. (2) Barring the possible nervous origin of the disease, which, however, has not yet been suggested, the possible explanations of its ætiology seem to be limited to three: (a) That it is due to a vice in the internal processes of cell life and division, that comes into generalized activity and results in exaggerated leucocytic hyperplasia. (b) That it is the result of toxic substances of unknown origin. (c) That it is of infectious or parasitic origin. This latter theory is the only one that has been the subject of direct investigation. The results have not confirmed the theory. The explanation of the causation of leucæmia would therefore seem to lie between the toxic theory and the hyperplastic theory, with the probabilities, perhaps, in favor of the former. It also remains to be shown whether there is but one specific cause for these diseases, and whether there is but one cause for the different forms of leucæmia.

5. **The Treatment of Eclampsia.**—Krusen divides the treatment of eclampsia into four stages: (1) Prophylaxis. (2) Treatment of the convulsions. (3) Treatment during the intervals. (4) The after treatment. (1) The output of urea is the best criterion of the patient's condition. The amount of nitrogenous food should be reduced to a minimum and the skin and bowels should be kept active. Normal salt solution by the rectum is of the greatest utility. The author seems to regard with favor the theory that eclampsia is due to insufficient thyroid secretion. Thyroid extract has been given with asserted good results in the preeclamptic period. (2) The convulsions should be treated with chloroform and by ice bags to the back of the head and neck. The patient must be prevented from biting her tongue. (3) Venesection is superior to veratrum viride for the prevention of recurring convulsions. From 20 to 30 ounces of blood may be withdrawn, and hypodermoclysis then resorted to, in order to dilute the remaining poisons. Purgation should be induced by either croton oil, calomel, or salts. Morphine, hypodermically, is often of the greatest use. The author favors emptying the uterus whenever practicable. In the first stages of labor, or when labor has not yet begun, he believes in forcibly dilating the cervix or making deep cervical incisions in order to deliver the child. (4) No special after treatment is demanded. The patient, however, will require more than ordinary care.

MEDICAL NEWS.

July 18, 1903.

1. Presidential Address on the Care of Epileptics,
By FREDERICK PETERSON.
2. Nature, Frequency and Possible Significance of the
Various Forms of Epileptic Aura,
By WILLIAM P. SPRATLING.
3. The Daily Rhythm of Epilepsy and Its Interpretation,
By L. PIERCE CLARK.
4. On the Pathology of Epilepsy, By ADOLF MEYER.
5. The Legal and Social Standing of the Epileptic,
By EDGAR J. SPRATLING.
6. Therapeutic Suggestions in Diphtheria,
By LOUIS FISCHER.
7. Report of a Case of Spina Bifida; Operation; Death,
By CHARLES GREENE CUMSTON.

2. **The Epileptic Aura.**—Spratling classifies and studies the various epileptic auras under four heads: (1) Psychic; (2) sensory; (3) motor; (4) irregular. He gives examples of each kind, and reviews extensively the literature on the subject. As to the significance of the various forms of aura, little or nothing is known. The author's experience leads him to believe that the more sudden, severe, and complete the epileptic attack, the less likely is it to be preceded by an aura; while the further the convulsion departs from the classical type, the more common and distinct the aura. Spratling believes that a close analytical study of auras may result in contributing a possible clue to the seat of epilepsy.

3. **The Daily Rhythm of Epilepsy.**—Clark summarizes his conclusions as follows: The study of 150,000 seizures shows that there is a more or less definite daily rhythm in the epilepsies, in the

early evening, noontide, and in the early morning, which roughly divides the twenty-four hours of the day into eight periods. There are also smaller secondary rhythms. The interpretation of the rhythm is explained on the basis of cerebral fatigue and the accumulation of waste products at these periods. Secondary and contributing factors are: manner of living, diet, exercise, occupation, sedatives and the character of the epilepsy.

6. **Therapeutic Suggestions in Diphtheria.**—Fischer gives the following advice: (1) Give antitoxine at once and give a sufficient dose. In mild cases this will be 1,500 for a child between one and five years, and at least 2,000 units for a child between five and ten years. If there is no improvement at the end of twelve hours a second injection should be given. If there is no improvement at the end of twenty-four hours a third injection should be given. If there is severe toxæmia, enlargement of the cervical lymph glands or evidences of stenosis, the initial dose of antitoxine should be greater, at least 3,000 units, and be followed in twelve hours by 1,500 more units. (2) Cases in which mixed infection has occurred cannot, as a rule, be successfully treated with antitoxine alone. The streptococcus is the most frequent associated microorganism. (3) Next to antitoxine in importance is a restorative and supporting treatment. No medication equals food. When mouth feeding is difficult or impossible, rectal feeding must be resorted to. The following nutritive enema is suggested: predigested milk, one ounce; starch water, one ounce; laudanum, one minim. If well borne, this may be repeated every four hours, and the yolk of a raw egg may be added to it. (4) Local cleaning with normal salt solution may do much to reduce the toxæmia. The pseudomembrane is at times favorably influenced by creosote vapor, weak sulphurous acid vapor, and by direct applications of one-half strength Lugol's solution. (5) The general measures of the greatest importance are: Abundance of fresh air; at times oxygen will be found useful. Temperature should be controlled by sponging, by the cold pack, and by flushing the bowel with cold water. (6) Stimulation is advisable from the beginning. Strychnine and alcohol are both well borne by children in even relatively large doses.

Circumscribed Tuberculous Meningitis.—A. Sanger (*Deutscher und französische Wochenschrift*, June 9) narrates three fatal cases of meningitis in all of which the autopsy revealed circumscribed inflammation of the meninges of the brain, tuberculous in character. In one case there were aphasia and hemiplegia of the right side, and in another also hemiplegia of the right side. Tuberculous basilar meningitis, as applied to such cases, is not a sufficiently comprehensive term, since the convexity of the brain is often involved, as well. The prognosis of tuberculous meningitis is very grave, but it is not necessarily fatal; for in five of the author's cases complete recovery resulted from the *unction* method of treatment. Lumbar puncture in these cases had given a negative result as to the presence of tubercle bacilli.

Book Notices.

The Medical and Surgical Uses of Electricity, including the X Ray, Finsen Light, Vibratory Therapeutics, and High Frequency Currents. By A. D. ROCKWELL, A. M., M. D., formerly Professor of Electro Therapeutics in the New York Postgraduate Medical School and Hospital. With Two Hundred and Fifty-two Illustrations. New Edition. New York: E. B. Treat & Co., 1903. (Price, \$5.)

This treatise presents the subject in complete and modern form. The new edition shows considerable revision. Six additional chapters have been included. Three of these are devoted to the x ray apparatus, diagnosis and therapeutics; and the others deal, rather too briefly, with the Finsen light, vibratory therapeutics, and high frequency currents, respectively. The illustrations have been increased in number and improved in quality.

A Textbook of Organic Chemistry. By WILLIAM A. NOYES, Professor of Chemistry in the Rose Polytechnic Institute. New York: Henry Holt & Co., 1903. Pp. xvii-534.

While essentially an elementary textbook and designed for the use of beginners, Professor Noyes's work furnishes a very readable presentation of the present state of our knowledge of the principles of organic chemistry. In the opening chapters instruction is given in the methods of determining molecular weights, formulæ and other operations relating particularly to physics. The hydrocarbons of all classes are then considered, and thereafter, in order, oxygen compounds and compounds containing halogens, nitrogen, and sulphur; and finally adequate drill is given in the structure of the heterocyclic compounds and the alkaloids, with brief mention of compounds of physiological and pathological interest, these chapters bringing the volume to a close. The author has succeeded in presenting a serviceable working textbook for students and teachers, and a special word of commendation is due for the remarkable clearness of exposition which distinguishes his presentation of the subject. Appended to each chapter is a series of laboratory exercises based upon the text preceding.

Therapeutics of Infancy and Childhood. By A. JACOBI, M. D., LL. D. Third Edition. Philadelphia and London: J. B. Lippincott Company, 1903. Pp. xvii-560. (Price, \$3.50.)

Dr. Jacobi has thoroughly revised his book, and a few minor additions have been made, but no marked changes from previous editions are noted. The same standard of excellence observed in the two previous editions is maintained.

As regards doses, the author departs radically from the opinion of most physicians in advocating larger quantities of drugs than are generally administered. This is exemplified most decidedly in his use of digitalis, strophanthus, and other heart stimulants. Jacobi gives us his own observations based upon many years of practical experience, and, as such, the work is undoubtedly of great value. Although necessarily condensed, the book is very complete. The fulness of the reference literature de-

serves attention. We take pleasure in recommending the book to both students and practitioners

A Manual of Medical Jurisprudence, Insanity and Toxicology. By HENRY C. CHAPMAN, M. D., Professor of Medical Jurisprudence in the Jefferson Medical College of Philadelphia. Third Edition, Thoroughly Revised. With 64 Illustrations and 4 Plates in Colors. Philadelphia, New York and London: W. B. Saunders & Co., 1903. Pp. 7 to 329. (Price, \$1.75.)

The third edition of this manual shows a few alterations in the text and the addition of a number of new tables and figures. In reading a book of this kind the student will undoubtedly gain considerable knowledge, in a general way, of the chief features of forensic medicine. The expert, however, will find himself going through well beaten paths, and will hardly be satisfied with the uneven character of the work. That a scientific spirit has moved the author in certain chapters can be seen, for instance, by a glance at his description of the methods of examining blood stains. Here are given in full detail the various tests employed and a capital description of the micrometer scale and its employment. But later on, in discussing rape, he determines whether a vaginal discharge is due to gonorrhœa or to violence, simply by its profuseness and the date of its appearance, and no mention of the gonococcus is made. This is hardly in line with twentieth century legal medicine.

The chapter on insanity is rather short, but it is quite sufficient for the student's requirements. The part devoted to toxicology gives the ordinary post mortem changes and the tests for poisons, but not in a clear and simple way for the use of the student who is without further assistance. The symptoms and treatment of poisoning are described, but we miss alcohol and potassium permanganate as antidotes for carbolic acid and opium, respectively. However, the book contains much general information, and, while not thoroughly modern in some chapters, is, nevertheless, safe to put into the hands of the student, for whom it was written.

The Practical Medicine Series of Year Books. Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Issued Monthly. Under the General Editorial Charge of GUSTAVUS P. HEAD, M. D., Professor of Laryngology and Rhinology, Chicago Postgraduate Medical School. Volume V. Obstetrics. Edited by REUBEN PETERSON, A. B., M. D., Professor of Obstetrics and Gynecology, University of Michigan. April, 1903. Chicago: The Year Book Publishers, 40 Dearborn Street. Pp. 5-204. (Price, \$1.50. Price of the Series, \$7.50.)

The present volume of the series reviews in excellent manner the advances in obstetric science during the year 1902. The literature has been thoroughly gone over, and the best and most important topics have been here included. Appearing monthly, these volumes appeal with special force to the general practitioner, covering in a year the entire subject of medicine. They are well edited and carefully collated, and their size renders them easy of handling.

The Röntgen Rays in Medicine and Surgery. As an Aid in Diagnosis and as a Therapeutic Agent. Designed for the Use of Practitioners and Students. By FRANCIS WILLIAMS, M. D. (Harv.), Graduate of the Massachusetts Institute of Technology; Visiting Physician at the Boston City Hospital; Fellow of the Massachusetts Medical Society; Member of the Association of American Physicians, etc. With Four Hundred and Twenty-eight Illustrations. Third Edition, with Enlarged Appendix. New York: The Macmillan Company; London: Macmillan and Company, Limited, 1903. Pp. v-757. (Price, \$6.00.)

The third edition of this popular work differs from the preceding only in an enlargement of the appendix. The additions consist of some minor paragraphs, one of which describes a convenient method of determining the angle at which the x light passes through the body of a patient under examination; of a table of 150 cases of new growths treated by the author, with a description of some of the cases; of a reference to various diseases reported as treated by others with the x rays since the publication of the second edition; and of a bibliography on x ray therapeutics and x ray dermatitis.

BOOKS RECEIVED, ETC.

The American Journal of Obstetrics and Diseases of Women and Children. A Monthly Journal. June, 1903. New York: William Wood & Company. Vol. xlvii. No. 6. (Price, \$4.00 a year.)

Thirty-ninth Annual Report of the Trustees of The Boston City Hospital. Including the Report of the Superintendent upon the Hospital Proper, etc. The South Department of Infectious Diseases, etc. For the Thirty-ninth year, February 1, 1902, to January 31, 1903, inclusive. Boston: Municipal Printing Office. 1903.

Quarterly Bulletin of Northwestern University Medical School (Chicago Medical College). Student's Number. Chicago, June, 1903.

The Expectant Mother. A Treatise on the Care of the Expectant Mother during Pregnancy and Childbirth and the Care of the Child from Birth until Puberty. By W. Lewis Howe, M. D. Philadelphia: F. A. Davis Company. Pp. v-63. (Price, \$0.50.)

Le Traitement de la Constipation. Par le Dr. Froussard. Ancien Interne des hôpitaux de Paris; Medecin consultant a Plombières. Préface par le Dr. Maurice Soupault, Médecin des hôpitaux de Paris. Paris: J. B. Baillière et Fils. 1903. Pp. 5-95. (Price, 1 fr. 50.)

Mortalidad de la primera infancia (Congreso de Deontología Médica, Madrid 3-5 de Mayo de 1903). Tema presentado á dicho Congreso por D. Rafael Ulecia y Cardona, Director de la Revista De Medicina y Cirugía practicas, Vocal de la Junta municipal de Sanidad de Madrid, etc., Madrid: Administracion de la Revista de Medicina y Cirugía Practicas. 1903. Pp. 1-31.

Informe acerca de la Mortalidad Infantil de Madrid; Sus Principales y Medios de Combatirla. Presentado á la Junta municipal de Sanidad. Por D. Rafael Ulecia y Cardona, Vocal de dicha Junta y Director de la Revista de Medicina y Cirugía practicas. Madrid: Imprenta Municipal. 1903. Pp. 2-43.

Primo Saggio di Applicazione all 'Uomo del siero anti-pneumonicco Tizzoni-Panichi. Osservazioni Cliniche pel dott. Luigi Panichi, Aiuto. Milano: Casa Editrice Dottor Francesco Vallardi. 1903. Pp. 3-43.

The Prognosis and Treatment of Syphilitic Disease of the Nervous System. Being a Lecture delivered at the Medical Graduates' College and Polyclinic. By Sir William Gowers, M. D., F. R. S., Consulting Physician, University College Hospital; Physician to the National Hospital for the Paralyzed and Epileptic. Reprinted for the Author from the British Medical Journal, April 4, 1903. London: 1903.

Miscellany.

Latin Quotations.—We must own to feeling somewhat aggrieved at the strictures upon us made by our correspondent, a "Non-classical Physician," anent Dr. Hamilton Williams's quotation from Horace, in his letter appearing in our issue for July 18th. We published Dr. Williams's letter, as we have done many others, without annotation, because it did not appear to us to call for any. If any "kick" is forthcoming, it should be directed against him, and not against us. If we were to translate every expression in a language other than English, used by authors in our columns, we should have all our time filled up without paying any attention to the technical side of the Journal, which, after all, is its actual *raison d'être*—we beg pardon, reason for existence. However, in answer to our correspondent, we may say that the quotation is taken from the epistle to Numicius (I. 6). With fear and trembling, our schooldays being long overpast, we venture on the following rendering:

If wiser counsels than the above be thine
Impart them freely; in default, use mine.

The Betterment of Childhood Conditions among the Poor.—Dr. Rosa Engelmann (*Archives of Gynecology and Padiatrics*, March), in a very thoughtful paper, reviews the evolution of the care of children from ancient times, and the progress already made therein. It is the children of the poor concerning which the State needs most to concern itself. She says:

"In a socioeconomic sense the children of the rich, being in such minority, need scant consideration except to be taught that social conditions need equalization and class relations simplification, and their great responsibility toward the overwhelming numbers of those below them in the social scale. They should learn the importance of humanity, fraternity, equality, duty, right, honor; not charity in its restricted sense. Since the children of the poor are to become the brain and brawn of the country, we should see to it that they be given opportunity for the highest moral, physical, and mental expansion.

"We are horrified and become spasmodically generous at times of such calamities as the recent volcanic eruption, but are, on the whole, insensible to the injustice and misery of our own cities' under-half, allowing the children to be cradled in so-called homes of filth and ignorance that cruelly drive them on to the streets first as waifs and truant, next as vagrants, and finally as wantons and criminals.

On the proper aim of education she quotes Booker T. Washington, that it should be "directed toward earning a comfortable living and exercising thrift and economy and some leisure for the pleasures of air, earth, and water, human associates, books and amusements." There is "the necessity for the ordinary training to live." What good, she asks, is a knowledge of geometry, literature, and music if a girl cannot sweep, cook, and keep her house garnished? Of what use is a knowledge

of the sciences to youth and man if he does not know how, by use of hands and brains, to provide food, clothing, and shelter for those dependent upon him?

She urges that children should be encouraged to bring their parents to the ever open assembly halls of the school for gatherings, music, entertainments supervised by the principals and teachers of the school, the latter bringing themselves into harmony with the parents of the children. Vacation school and summer outings should become a permanent feature of our educational system. For defectives she advocates separation and supervision in proper homes and schools.

Institutions placed in the country should be run on the cottage plan, with family groupings, whether or not the inmates belong to the lower-graded idiots or imbeciles, for whom shelter and kindness are indicated, or to a higher type capable of industrial development. All epileptics should be formed into country communities where every opportunity for training and a livelihood is offered, so that eventually they may become the helpers, leaders, and teachers of their brothers in these colonies.

For truancy she suggests that "if the parent of a truant were punished for the child's truancy, truancy would be decidedly lessened. Should the parent be beyond reach and the child become an incorrigible truant in spite of the effort of truant officers, of whom there are far too few, then must recourse be had to a juvenile court such as now exists in fifteen of our largest cities. Brought from special detention homes by probation officers to the court, the judge decides as to whether these truants or any other delinquent child shall be put upon probation, upon a suspended sentence, or given 'one more chance' and a good friend to look after them before being sent to a parental school or other reformatory institution. These schools are especially adapted to the needs of these classes where not repressive or even reformatory methods are used, but where these lads and lasses are introduced to new interests, new ambitions and new powers."

Finally, she sums up her conclusions as follows: (1) Keep the growing child from contact with vice through proper housing and lessening of family crowding, and by eviction of suspected immoral tenants upon complaint of other dwellers in the tenement. (2) Raise school age limit and give better ethical and industrial training. (3) Teach growing boys and girls the laws of sexual life and hygiene as a preventive against the mysteries of immorality. (4) Furnish purer and more elevating forms of recreation and amusement. (5) Raise and safeguard the conditions of child and female labor. (6) Coercively confine debauched minors in houses of refuge and reform, since they are the most active source of moral and physical contagion.

New Food Plants in Yucatan.—The *Sanitarian* for June contains a consular letter from Yucatan, by Edward H. Thompson. Mr. Thompson says that the gardens and fields of Yucatan are filled with succulent vegetables and odorous herbs unknown to the outer world; while the forests and jungles contain fruits that, excellent even in their wild state, could be made delicious by scientific care

and cultivation. Mr. Thompson holds himself in readiness to supply any person who, or society which, desires the seeds or roots mentioned in these reports for the purpose of study, making only such charges as will cover the actual expense incurred.

Yucatan has six varieties of this grain. The large-stalked, large-grained class, known to the natives as *xnuc nal* (pronounced *schnook nál*), is the most prominent and has by far the greater acreage devoted to its cultivation on the peninsula (Yucatan). It is planted in May, and when matured is left to harden and season until gathered as needed. This class most nearly resembles our Indian corn. It has both the white and yellow grains. Under the haphazard methods of the native Indians, the corn produces in the limestone soil of Yucatan from twenty to thirty bushels to the acre. Under favorable conditions, this yield is often doubled.

The "*xmehenal*" (*shmehenál*) is a small, quick-growing variety, about the size of our pop corn. The plants are rarely four feet high, and the natives have a saying that the cock can pick the flowers of the true *xmehenal* without stepping off the ground. One variety matures within sixty days of its planting, and the second needs but fifteen days more.

The *xmehenal xtup* (*shtoop*), planted in May, can be gathered in July, and, while the production per acre does not quite reach the figures of the *xnuc nal*, it has a greater capacity of resisting the extremes of heat and dryness.

The natives of Yucatan prefer the native corn to that imported from the United States, and will cheerfully pay the higher price demanded in times of scarcity. They state that our method of kiln drying injures the grain. They allow the grain to harden and dry slowly in the ear upon the stalk.

The plant, or rather the running vine known as the *macal box* (*makal bosh*), produces a tuberous root of great nutritive value. Entire families have lived upon this root for weeks at a time and were healthy and well nourished. This plant is very productive. About the middle of May the green shoots first appear above the earth. They grow rapidly and in November are ready to be dug. The tuber is about the size of a large Irish potato and is of a purplish color, like a certain class of sweet potato. It can be cooked in the same way as the sweet potato. The plant is hardy. A long drought may cause the vine to wither, but with the lightest rain it springs up anew. The roots left in the ground as too small for food propagate the plant, and each year the yield increases. It seems to be a kind of native yam; it grows in almost any kind of moderately rich soil, and when cultivated intelligently should be of certain value as a food. The *xmakin macal* (*shmakeén makál*), like the *macal box*, appears in May and is gathered in November, but it yields only one or two tubers to the plant. These, however, are of large size, resembling enormous Irish potatoes. Mr. Thompson has seen four of these great roots fill a bushel basket. The interior is white and seems to be nearly pure starch. It is planted as we set out potatoes. The plants grow close together, and the yield per acre should be phenomenal, so far as weight of product is concerned.

Xmehen chi-can (shmehen chi kan) seems to be a kind of artichoke, weighing when mature about a pound. The plants are running vines, rarely more than a yard long. An acre will yield an immense crop under favorable conditions. The plant, sown in August, can be gathered in November.

Xnuc chi-can is a larger root, weighing when mature about three pounds. It is a hardy plant and produces well. Both of these roots are eaten roasted or boiled, and many like them raw. Some of the roots sent with this report as specimens are not of the sizes given, as they have been by force of circumstances taken out of season.

“Can Such Things Be?”—The *Brooklyn Eagle* says: “The doctors who know more about cases than the physicians who take charge of them have been greatly in evidence of late. And they are nearly always about the same doctors. They are not the greatest physicians among journalists, but they are the greatest journalists among physicians, which is pretty nearly as bad.”

Official News.

Infectious Diseases in New York:

We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending July 18, 1903:

DISEASES.	Week end'g July 11.		Week end'g July 18.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	387	21	356	14
Diphtheria and Croup	354	36	257	43
Scarlet fever	183	16	117	11
Small-pox	1	0	0	0
Chicken-pox	56	0	59	0
Tuberculosis	267	116	293	144
Typhoid fever	78	13	73	16
Cerebrospinal meningitis	0	4	0	0

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending July 18, 1903:

- BROWN, H. L., Assistant Surgeon. Appointed Assistant Surgeon with rank of Lieutenant, Junior Grade, from June 29, 1903.
- BUCHER, W. H., Passed Assistant Surgeon. Detached from the Navy Yard, Pensacola, Fla., and ordered to Washington, D. C., for examination for promotion, and thence to San Francisco, Cal., to take passage on the *Siberia* for the Asiatic Station, for duty at the Navy Yard, Cavite, P. I.
- CHAPMAN, R. B., Acting Assistant Surgeon. Ordered to duty with recruiting party No. 8.
- DE LANCEY, Assistant Surgeon. Detached from the Navy Yard, Norfolk, Va., and ordered to the *Columbia*.
- GEIGER, A. J., Assistant Surgeon. Detached from the Naval Hospital, Navy Yard, Norfolk, Va., and ordered to Washington, D. C., for duty as recorder of Naval and Medical Examining Board now in session at the Naval Museum of Hygiene and Medical School.
- HARRIS, H. N. T., Surgeon. Detached from the *Glacier* and ordered to the Navy Yard, Pensacola, Fla.
- LAW, H. L., Surgeon (retired). Ordered to additional duty at Marine Recruiting Station, Providence, R. I.
- LOWNDES, C. H. T., Surgeon. Detached from the Naval Station, San Juan, Puerto Rico, and ordered home to wait orders.
- PICKRELL, G., Surgeon. Ordered to the Naval Station at San Juan, Puerto Rico.
- PLUMMER, G. R., Acting Assistant Surgeon. Ordered to the Naval Station, Key West, Fla.
- SCHWERIN, L. H., Acting Assistant Surgeon. Detached from duty with recruiting party No. 6 and ordered to the Southery.
- THOMPSON, J. C., Assistant Surgeon. Detached from the *Columbia* and ordered to the *Chesapeake*.
- TYREE, F. W., Acting Assistant Surgeon. Ordered to the Naval Station, Port Royal, S. C.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera and plague, have been reported to the surgeon-general, Public Health and Marine Hospital Service, during the week ending July 18, 1903.

Smallpox—United States.			
Places.	Date.	Cases.	Deaths.
Alabama—Mobile	July 4-11	2	
California—San Francisco	June 28-July 5	3	
Georgia—Atlanta	July 1-8	1	
Illinois—Chicago	July 4-11	4	
Indiana—Kokomo	July 4-11	2	
Louisiana—New Orleans	July 4-11	2	
Maine—Ft. Kent and vicinity	July 10-14	24	
Massachusetts—Fall River	July 4-11	15	
Massachusetts—New Bedford	July 4-11	2	
Massachusetts—Taunton	July 4-11	2	
Michigan—Detroit	July 4-11	11	
Michigan—Port Huron	July 4-11	3	
New Jersey—Camden	July 4-11	1	
New Hampshire—Manchester	July 4-11	3	
New York—New York	July 4-11	1	
Ohio—Cincinnati	July 3-10	2	
Ohio—Cleveland	July 4-11	1	
Ohio—East Liverpool	June 1-30	6	
Ohio—Hamilton	July 4-11	4	2
Ohio—Toledo	July 4-11	2	
Pennsylvania—McKeesport	July 4-11		1
Pennsylvania—Philadelphia	July 4-11	54	11
Pennsylvania—Pittsburgh	July 4-11	47	2
South Carolina—Charleston	July 4-11	4	
Tennessee—Memphis	July 4-11	2	
Tennessee—Nashville	July 4-11	3	
Utah—Salt Lake City	June 27-July 4	3	
Utah—Salt Lake City	July 4-11	5	one case imported.
Wisconsin—Milwaukee	June 27-July 4	6	

Smallpox—Foreign.			
Places.	Date.	Cases.	Deaths.
Austria—Prague	June 13-20	6	
Belgium—Brussels	June 20-27		5
Brazil—Pernambuco	May 28-June 4	11	
Canary Islands—Las Palmas	June 13-27	10	
Colombia—Bocas del Toro	June 23-30	8	1
Ecuador—Guayaquil	June 20-27		1
France—Marseilles	May 1-31		32
France—Marseilles	June 1-30	19	
France—Rouen	May 1-31		3
Great Britain—Birmingham	June 20-27	4	
Great Britain—Dublin	June 20-27		2
Great Britain—Dundee	June 13-20	2	
Great Britain—Leeds	June 27-July 4	4	
Great Britain—Liverpool	To July 4	28	4
Great Britain—Manchester	June 20-27	10	
Gt. Britain—Newcastle-on-Tyne	June 13-27	9	
Great Britain—Nottingham	June 20-27	4	
Great Britain—Sheffield	June 13-20	1	
Great Britain—Southampton	June 13-20		1 case from Ss. Paul from New York.
India—Bombay	June 9-16	27	
India—Calcutta	June 6-13	2	
Mexico—City of Mexico	June 14-27	29	20
Russia—St. Petersburg	June 20-27	11	3
Russia—Warsaw	June 6-13	2	
Spain—Barcelona	June 13-20		7
Turkey—Constantinople	June 21-28		1

Yellow Fever.			
Places.	Date.	Cases.	Deaths.
Colombia—Panama	June 20-July 6	6	2
Costa Rica—Limon	June 24-July 2	7	1
Cuba—Havana	July 14		1
Mexico—Progreso	June 21-July 5	2	Patient taken from Ss. Vigilancia from Progreso.
Mexico—Tampico	June 27-July 4	23	

Plague—Foreign.			
Places.	Date.	Cases.	Deaths.
Hawaii—Honolulu	July 3		1

Plague—Foreign.			
Places.	Date.	Cases.	Deaths.
Australia—Queensld., Brisbane	May 9-30	2	2
Australia—Queensld., Bundaberg	May 16-23	1	1
Western Australia—Freemantle	June 10	1	
Egypt—Alexandria	June 6-13	4	2
Egypt—Beni Mazar	June 6-13	2	
Egypt—Port Said	June 6-13	1	1
Egypt—Tukh	June 6-13	8	2
Egypt—Samalut	June 6-13	2	2
India—Bombay	June 9-16		186
India—Calcutta	June 6-13		15
India—Karachi	June 7-14	15	13
Mauritius	June 4-11		2
Japan—Nagasaki	May 27		1
Japan—Yokohama	June 6-13	3	2

Cholera.			
Places.	Date.	Cases.	Deaths.
India—Calcutta	June 9-16		45
India—Madras	June 6-12	1	1
Straits Settlements—Singapore	May 16-30		20

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department of the United States Army for the week ending July 18, 1903:

- BORDEN, W. C., Major and Surgeon. Granted leave of absence for one month and fifteen days.
- BUSHNELL, GEORGE E., Major and Surgeon. Relieved from duty at Fort Logan, Colo., and ordered to the United States General Hospital, Fort Bayard, New Mexico, for duty.
- CORBUSIER, W. H., Major and Surgeon. Relieved from duty at Fort Cook, Neb., and ordered to the Philippines for duty.
- CROSBY, WILLIAM D., Major and Surgeon. Granted leave of absence for thirty days.
- DEVEREUX, JOHN R., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Snelling, Minn., and ordered to duty at Fort Meade, S. D.
- EDIE, GUY L., Major and Surgeon. Granted one month's leave of absence.
- GANDY, C. M., Major and Surgeon. Relieved from duty in the Division of the Philippines and ordered to the United States for orders.
- GRAY, W. W. Major and Surgeon. Granted leave of absence for one month.
- KEEFER, F. R. Major and Surgeon. Relieved from duty at Fort Meade, S. D., and ordered to the Philippines for duty.
- LA GARDE, LOUIS A., Major and Surgeon. Relieved from duty as Attending Surgeon to the Soldiers' Home and granted leave of absence for thirty days, with permission to apply for an extension of three months.
- MCCULLOCK, C. C., First Lieutenant and Assistant Surgeon. Assigned to duty as Attending Surgeon and Examiner of Recruits at New York, N. Y.
- MARROW, CHARLES E., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Sheridan, Ill., and ordered to duty at Fort Crook, Neb.
- POLHEMUS, A. S., Major and Surgeon. Relieved from duty in the Division of the Philippines and ordered to the United States for orders.
- RUTHERFORD, H. H., First Lieutenant and Assistant Surgeon. Relieved from duty at the United States General Hospital, Presidio of San Francisco, Cal., and ordered to Fort Mackenzie, Wyo.
- TEN EYCK, B. L., Major and Surgeon. Ordered to proceed to Chicago, Ill., for examination by the Army Retiring Board.
- WILLIAMSON, L. P., First Lieutenant and Assistant Surgeon. Relieved from duty at Jefferson Barracks, Mo., and ordered to the United States General Hospital, Presidio of San Francisco, Cal., for temporary duty.

Public Health and Marine Hospital Service:

Official List of the Changes of Station and Duties of Commissioned and Non-commissioned Officers of the Public Health and Marine Hospital Service for the Seven Days Ending July 16, 1903:

- BARNESBY, P. N., Acting Assistant Surgeon. Granted leave of absence for two weeks, on account of sickness, from July 2nd.
- CLARK, T., Passed Assistant Surgeon. Granted leave of absence for seven days from July 13, 1903, under paragraph 191 of the regulations.
- HICKS, W. R., Acting Assistant Surgeon. Granted leave of absence for three days from July 14th.
- MCCLEINTIC, T. B., Assistant Surgeon. To proceed to Atlantic City and Point Pleasant, N. J., for the purpose of making physical examinations of keepers and surfmen of the Life Saving Service.
- To proceed to Tuckerton, N. J., for the purpose of making physical examinations of keepers and surfmen of the Life Saving Service.

PERRY, J. C., Passed Assistant Surgeon. Granted leave of absence for one month from July 14th.

ROSENAU, M. J., Passed Assistant Surgeon. To proceed to Boston, Mass.; Philadelphia, Marietta and Swift-

water, Pa.; Detroit, Mich.; St. Louis, Mo.; Milwaukee, Wis., Chicago, Ill., and Baltimore, Md., for special temporary duty.

SWEETING, C. B., Acting Assistant Surgeon. Granted leave of absence for thirty days, on account of sickness, from July 10th.

TROTTER, F. E., Assistant Surgeon. Granted seven days' extension of leave of absence from July 13th.

TUTTLE, JAY, Acting Assistant Surgeon. Department letter granting Acting Assistant Surgeon Tuttle leave of absence for thirty days, amended so as to be effective July 3rd.

WELDON, W. A., Acting Assistant Surgeon. Granted leave of absence for fifteen days from July 11th.

WICKES, H. W., Passed Assistant Surgeon. Granted leave of absence for one day, July 17th.

WILLIE, C. W., Assistant Surgeon. To proceed to Ocean City, Md.; Chincoteague Island Onley, Va., for the purpose of making physical examinations of keepers and surfmen of the Life Saving Service.

Boards Convened.

Board convened to meet at the Marine Hospital, Port Townsend, Wash., July 17, 1903, for the physical examination of an officer of the Revenue Cutter Service. Detail for the board, Passed Assistant Surgeon J. H. OAKLEY, Chairman. Passed Assistant Surgeon M. H. FOSTER, recorder.

Board convened to meet at the Marine Hospital, Chelsea, Mass., July 21, 1903, for the physical examination of an officer of the Revenue Cutter Service. Detail for the board, Surgeon R. F. WOODWARD, Chairman. Assistant Surgeon W. C. RUCKER, recorder.

Marriages and Deaths.*Married.*

FASSETT-STARK.—In New York, N. Y., on Wednesday, June 17th, Dr. Bryant Sloat Fassett and Miss Julia Lucena Stark.

MCGUIRE-O'SULLIVAN.—In New York, N. Y., on Tuesday, July 14th, Dr. G. H. McGuire and Miss Florence T. O'Sullivan.

MANSON-GOODWIN.—In Cordoba, Mexico, on Wednesday, June 24th, Dr. David William Manson and Miss Katharine L. Goodwin.

OLIVER-BABBITT.—In Aspen, Md., on Tuesday, July 14th, Dr. James Harry Oliver and Miss Bessie May Babbitt.

WALLING-BURGESS.—In Atlantic City, N. J., on Sunday, July 12th, Dr. William H. Walling and Miss Margaret Elizabeth Burgess.

YOUNG-TAYLOR.—In Washington, D. C., on Thursday, July 2nd, Dr. Parke G. Young and Miss Elizabeth Blackstone Taylor.

Died.

ARMSTRONG.—In New York, N. Y., on Thursday, July 16th, Dr. Edward V. Armstrong, in the thirtieth year of his age.

DOWLING.—In Charleston, S. C., on Saturday, July 11th, Dr. William Preston Dowling, in the seventy-first year of his age.

HILLS.—In Auburn, N. Y., on Saturday, July 11, Dr. Jannat Ernestine Hills, in the forty-second year of his age.

McNEER.—In Bramwell, W. Va., on Friday, July 17th, Dr. H. V. McNeer, in the fortieth year of his age.

PERRY.—In Gate City, Va., on Friday, July 17th, Dr. I. M. Perry, in the thirty-fifth year of his age.

RICHARDSON.—In Washington, D. C., on Sunday, June 28th, Dr. A. B. Richardson, in the fifty-sixth year of his age.

ROCHESTER.—In Rochester, N. Y., on Sunday, July 12th, Dr. Thomas M. Rochester, in the forty-ninth year of his age.

STANTON.—In Philadelphia, Pa., on Saturday, July 11th, Dr. John E. Stanton.

WASHBURN.—In San Antonio, Texas, on Monday, June 22d, Dr. Nathaniel P. Washburn.

WELLS.—In Bethany, N. Y., on Friday, July 10th, Dr. George R. Wells, in the forty-first year of his age.

New York Medical Journal AND Philadelphia Medical Journal. CONSOLIDATED.

A Weekly Review of Medicine

VOL. LXXVIII, No. 5.

SATURDAY, AUGUST 1, 1903.

WHOLE NO. 1287.

Lectures and Addresses.

REMARKS UPON MEDICAL INSTRUCTION—A PLEA FOR GREATER UNIFORMITY.*

By N. R. COLEMAN, M.D.,
COLUMBUS, OHIO.

Permit me, before entering upon my remarks, to express to the members of the confederation my sincere appreciation of the honor they conferred in selecting me, a second time, to preside over the deliberations of this honorable, earnest, and most progressive organization.

INTRODUCTION.

For the last decade the medical profession of the United States has been most earnestly and determinedly engaged in securing the enactment of laws for the protection of the people from pretenders and unqualified physicians and for directing the study and practice of medicine, till now almost every civic division of our country has secured such laws. While, in some cases, these laws may be crude and imperfect, they are a decided victory for the medical profession. In securing them, those so engaged have had to suffer many indignities, humiliations, and, at times, the most fierce opposition from legislators, the general public, colleges, students, and even from members of their own ranks. It has been, in large part, a matter of educating the public to an understanding of the changed conditions which demanded a change in our laws. Since the intent of these beneficent laws is becoming better understood by the public, the legislators, and the courts, there is much less difficulty encountered in curing their defects than was found in enacting the original laws. With the rapidity with which the laws are being perfected, we can believe that in a brief period they will be so adjusted as fully to meet the requirements for which they were intended.

It might not be deemed inappropriate to mention here that the two chief causes which necessi-

tated the enactment of these laws, were the credulity of the public and the indiscriminate and abominable abuse in the granting of charters to irresponsible and incompetent men for the founding of so-called medical colleges.

While our attention has been so earnestly and profoundly given, for many years past, to securing the enactment and administration of medical practice acts, there are still many defects in connection with medical education which can, and should, be remedied by the medical colleges and the state boards. The chief of these defects is the manner in which medicine is taught in the larger number of medical colleges in this country; hence our theme, Remarks Upon Medical Instruction—A Plea for Greater Uniformity.

The limits of this address will allow but the brief discussion of a limited number of these defects. The first subject to which we would direct your attention is the

CURRICULUM OF MEDICAL COLLEGES.

It is a fact well known to teachers and to boards of State medical licensure that a great discrepancy has existed, and yet exists, in the course of study adopted by many of the medical colleges of this country, which proves a source of great annoyance to the colleges, works a great hardship to the medical students, and prevents, to a great degree, uniformity in the examinations by the State boards. The advance in medical education in the past twenty years has been very great; and yet there has been little or no effort to establish a uniform course of study. It has now become an urgent necessity—indeed it should be made one of the chief topics for discussion by the medical colleges and State boards.

A uniform course of study carries with it many advantages over the present method, with no disadvantages to college or student. It must not be understood that by a uniform curriculum is meant an absolutely fixed or arbitrary course of study from which no deviation can be made. It should be broad enough to allow a course of study to those who desire to follow some vocation other than the

* Presidential address delivered before the National Confederation of State Medical Examining and Licensing Boards, at its Twelfth Annual Meeting, held at New Orleans, La., May 4, 1903.

practice of medicine. Provision should be made for elective studies, so that students in the arts and sciences can enter the medical college and receive a more thorough and practical training than obtains in the literary college in such subjects as physiological, artistic, and practical anatomy, public sanitation, or State medicine. Physiological chemistry and certain other branches should be made elective studies, to meet the requirements in special courses; but those who enter as medical students should be required to take absolutely all the studies in the curriculum leading to the doctorate degree. At the same time, they should not be barred from doing special work, when they could do so without neglecting the regular course required by the college.

It is believed by some highly educated physicians that inorganic chemistry, elementary physics, and biology should be excluded from the medical course and numbered with the studies of the preliminary education. The time has arrived when a clearly defined line should exist between the studies required in the preliminary and in the medical courses.

The courses of study should be systematized and unified in the medical colleges of the United States. The studies which are correlated should be so grouped in the course that the knowledge obtained could be classified and the student could fix in his mind general principles and laws, instead of studying each subject in the abstract, and thus practically reducing the course of study to one of memorizing. For example, all the studies relating to anatomy, such as practical anatomy, histology, physiological and applied or clinical anatomy, should be grouped and studied together. The same arrangement should be followed in physiology, chemistry and throughout the entire course. By this method, and this only, can the most rapid progress be made, and knowledge secured in a way that it can be retained.

Practical anatomy should be taken up in the first year, and the full course completed by the close of the second year, that the student may have a well-founded knowledge of the normal structures of the body when he enters upon the study of the practice of medicine, surgery, and the discussion of abnormal conditions.

There are some medical colleges which do not complete the course of practical anatomy until near the close of the last year, thereby causing the student to pursue his course of study without first acquiring an adequate knowledge of that foundation subject upon which nearly all the superstructures must be builded. Can a student following such a course of study take up the study of pathol-

ogy and the practice of medicine and surgery, intelligently? Absolutely, no. Can he determine whether an organ is normal in position, relation, form, and consistency? If not, how, then, can he enter, understandingly, upon the study of diseases which give rise to physical signs? Such a method is absurd and unreasonable in the extreme.

Applied chemistry should be taken up with the laboratory work of allied subjects. Inorganic chemistry should be classed with the preliminary studies, as the literary colleges and universities teach it more thoroughly than do the great majority of medical colleges. Physical diagnosis should be commenced in the third year, as it is impossible for a student to comprehend it properly until he has been well trained in anatomy, physiology, pathology, the principles of medicine, and acoustics—a thorough knowledge of the last named branch is absolutely essential, for without it the student can never become proficient in this very important branch of medicine.

Laboratory work should be taken up in connection with the study to which it is allied, no matter to which year such study has been assigned.

All curricula must, of necessity, include the fundamental branches, but experience has proved that every physician should possess at least a general knowledge of the special branches in medicine and surgery. The question then arises, how much time should be devoted to these special branches, and when should they be taken up. Sufficient time should be spent on them to enable a student to determine whether there is something abnormal in a special organ or part of the body, and to possess a reasonable comprehension of the nature of such abnormality. For example, in diseases of the eye, ear, and skin, some involvements of these structures imperatively demand prompt and decisive action on the part of the general practitioner to protect properly the patient or the public. For further diagnosis and treatment of such cases, a physician could, if necessary, be summoned, who devotes his time to such special maladies. These special branches should be studied in connection with the fundamental branches to which they are most closely allied, in order to bring them in natural correlation, and thereby to avoid memorizing to the greatest possible extent. It should be taken into consideration in arranging the schedule of study, whether it is better to finish a course—say in ophthalmology and otology—of forty hours, in ten weeks of four hours each, or to extend it over twenty or forty weeks. The former plan, in the opinion of the writer, should be adopted. By accomplishing the work in these branches in the shortest time compatible with opportunity for

study, the student will be enabled to concentrate his efforts in the given line of work; whereas, if the course extends over two or three times that period, it would be more difficult for him to retain what has been previously taught and to conceive of the subject in its entirety.

The last year in the college course should be given almost wholly to clinical study, to afford the student an opportunity to make practical application of the knowledge that he should now possess, of the fundamental branches of medicine and surgery. One year of hospital training has proved invaluable to the recent graduate, and great effort should be made to furnish such advantages to as large a number as possible.

The time required in each branch included in the curriculum should be expressed in hours, and the daily schedule so arranged that correlated subjects would follow each other and in as nearly a natural order as possible.

A curriculum adopted and followed by all the medical schools of the United States would prove of inestimable value, as it would enable students to transfer from one college to another without detriment to themselves or annoyance to the colleges.

TEACHERS.

The medical colleges are the institutions to which we look for the education of physicians, and yet we find but few professional teachers connected with these institutions. A great majority of physicians who teach, make their positions secondary to the practice of their profession and a means whereby they may extend their business. Therefore the work is performed, by a great number of such teachers, in a perfunctory manner and without sufficient preparation, thought, system, or method. Frequently, they fail to fill hours assigned to them, or, at other times, they are tardy, thereby working great injustice to the students who, having paid the fees in good faith, fail to receive the instructions they seek and to which they are justly entitled. The reason for such a condition is obvious; the great majority of teachers receive little or no compensation for their services, and it matters nothing to them in a financial way whether they fill their hours or not, so that they retain their position in the college; for it is from the position that they expect to gain prestige whereby to increase their business. Such a condition ought not to exist; teachers should be paid, and well paid, for their services. But, you say, the colleges are poor and cannot pay their teachers. The answer is that all the medical colleges should be placed under such permanent control that they could receive endowments; and instead of 156

medical colleges, which now exist in the United States, there should be but half that number. Then their income might be sufficient to make the compensations of good teachers commensurate with the highly responsible and onerous duties they have to perform.

In 1877 there were 65 medical colleges in the United States. In 26 years they have increased 140 per cent. With such rapid increase of colleges it has been impossible to secure competent teachers to fill all the departments in an efficient manner. Those appointed to fill positions as teachers in medical college, should possess special training and ability to perform the work for which they are selected. The quality of their work should be determined in the class room, by those competent to judge of such matters, before permanent appointments are made. It is a well known fact that many who possess sufficient knowledge to teach, lack the ability to impart the same—teachers are born, not made. We find, to the great detriment of the medical profession, callow youths in medicine, graduated but one or two years previously, without experience, special training, or aptitude, receiving appointments to important positions as teachers in a medical college. Such conditions should receive the stamp of disapproval from every self-respecting physician and the State boards. The changes which have recently been made in the methods of teaching medicine, have increased the demand for competent men far beyond the supply. When the colleges have incomes which would justify men in especially preparing themselves for the life work of teaching and investigation, we shall then have a sufficient number of competent teachers, and not until then.

TEACHING.

In examining the catalogues of many of the medical colleges of this country, it is found that nearly all of them require the four years' graded course, including all the fundamental branches and about the same number of special studies. It also is found that the teaching faculties vary from a number just sufficient to fill the chairs in the fundamental and the most important special branches, to those consisting of 75 or more members; and each school confers the doctorate degree. In some of the colleges there is but one teacher for each of the following branches: Anatomy, materia medica and therapeutics, and the practice of medicine, while in other colleges there are from three to five men to teach each of the same branches. Is it possible for one man to teach, in an efficient manner, one of the fundamental branches unless he devotes his entire time to it? The answer must be, emphatically, no. Is such a condition of the

medical colleges just to the student or to the best interests of the medical profession? Surely, it is not. The colleges with weak and inefficient faculties should be required to increase their teaching force to meet the requirements of to-day, or not be recognized by the State boards.

The great desiderata, which should constitute the prime factors of teaching medicine, are system and method. Without them no teacher can hope to be eminently successful. The student should be taught medicine and surgery by assigned lessons and recitations, didactic instructions, demonstrations, laboratory work, and clinical instructions. Each factor has its particular advantages, and it becomes the teacher's duty to determine when and how to use them, to meet best the necessities of the student. No one method should be wholly used to the exclusion of the others. The order in which, and the time at which, each subject is taken up, and its relation to allied subjects, must ever be the method and thought of the successful teacher. This will enable the student to retain what he is taught, by reasoning from fixed laws, principles, and relations. The first thing of all to be taught to the student is to think, think, think.

With the enactment of laws establishing State boards of medical licensure, came an end to the method of simply memorizing in the study of medicine; for a large number who depend upon it fail before these boards. It was a fault which obtained largely in the past, but should be avoided by teachers at this time. To it is due a large number of incompetent physicians. This has been clearly revealed in the examinations held by the State boards, as we shall hereinafter endeavor to show.

It has become apparent in these examinations that a large number of those who come before the boards are deficient in their knowledge of anatomy, and particularly so in regard to the visceral anatomy of the thoracic and abdominal cavities. It is absolutely necessary that every physician should understand the anatomy of the various viscera of the body, even better than he does that of the bones, muscles, blood vessels, and nerves. But a small percentage of any class examined by me could bound or give the organs or parts of organs in any one of the artificial regions of the thorax or abdomen—their answers in many cases being absurd and ridiculous. We are constrained to believe, from a personal experience, that physical diagnosis is woefully neglected and taught by incompetent teachers in a large number of the medical colleges. A teacher of physical diagnosis should be thoroughly educated in medicine, well versed in the laws of disease, a thorough clinician,

have a wide field of experience, be well versed in retrospective diagnosis, and have an aptitude for this special work. Do we always find such men filling this responsible chair? We do not; but, on the other hand, we find sometimes a mere youth in medicine appointed to teach this most important and difficult subject. It is a subject which requires broad knowledge and great energy on the part of the teacher, to make it of interest to the average student. Many applicants examined by the Ohio State Board did not know the difference between a physical sign and a symptom, or between flatness and dullness, or between pitch and intensity; they could not define pitch, intensity, duration, or quality of sound or state how they were determined.

Knowledge of technical terms is an essential factor in the education of every physician, as these are, practically, the universal language of the medical profession. No physician can read medical literature understandingly without such culture. He should be taught the names of all diseases and the most important signs and symptoms of those which are seen less frequently, for if he knows that a certain disease exists, he may suspect it, and so, by further investigation, may arrive at a correct diagnosis.

In order more fully to verify what we have said relative to imperfect teaching in the medical colleges, come with me for a brief period into the office of the Ohio State Board of Medical Registration and Examination, and let us examine the records and select a few of the precious gems contained in the manuscripts on file, among which are found the following questions and answers:

Q. "Give ætiology, pathology and treatment of podagra."

Ans. "Mumps is a disease of the parotid gland." The candidate then goes on at length to describe mumps.

Ans. "Cedema of areolar tissue."

Ans. "Podagra or ergot poisoning is caused by ingestion with bread, in which the ergot is found."

Ans. "Not familiar with the term."

Ans. "I do not know the disease by this name."

Ans. "The name is familiar, or at least sounds familiar, but the meaning has gone from me."

Thirty-three and one-third per cent. of the class did not attempt to answer this question.

Q. "Define and give all the causes of hæmoptysis, hæmatemesis and hæmaturia."

Ans. "Hemorrhage from the uterus—a sudden gush of blood or issuing—a continuous flow more or less severe. Causes—rupture of uterus."

Ans. "Hæmatemesis (nose bleed). It is often caused by a congestion of liver. Injury, lack of fibrin or albumen."

Q. "State all the causes of pyuria."

Ans. "Pus in the liver, e.g., abscess may be absorbed by kidney and thence to bladder."

Ans. "Cannot recall meaning of this term."

Ans. "Pus in the blood."

Q. "Differentiate normal vesicular and bronchial respiration."

Ans. "Vesicular respiration—crackling. Bronchial is a smooth gliding respiration."

Ans. "Vesicular respiration takes place in the lung, while bronchial takes place in the bronchus."

Q. "Define normal bronchial respiration, and state where it is heard."

Ans. "Normal bronchial respiration is a sound heard in the broncho while breathing."

Ans. "Heard over larger bronchial tubes in upper part of thorax. It is characterized by a sonorous tubular breathing with coarse râles."

Q. "Define Cheyne-Stokes breathing. In connection with what diseases may it occur."

Ans. "Where both inspiration and expiration are shortened."

Ans. "Consumption and diabetic conditions."

Ans. "A blowing or puffing."

Ans. "Where the air cells and bronchioles are dilated. These things are hard to define, but easier to tell when they are heard. Emphysema Asthma."

Ans. "It is a slow, regular breathing where each breath is accompanied by a certain number of heart beats."

Ans. "It is a quick jerking heard in Asthma and Laryngitis Stridulous."

Q. "Bound the infra-mammary region."

Ans. "Bound above by the clavicle on either side and neck skin and facia; on the sides by the ribs from the fifth up and below by the diaphragm."

Ans. "All the parts of the body below the mammary gland and above the symphysis pubis."

Ans. "The right and left hypochondrium and the epigastrium."

Q. "What are the differential physical signs of ascites, ovarian cyst and pregnancy?"

Ans. "In ascites the only positive sign that I know is to see some section of a tape worm pass. Of course, there are other symptoms that may lead you to suspect ascites."

Q. "State fully the physical signs of morbus cæruleus."

Ans. "A degenerative inflammation somewhere."

Ans. "Seems like blue disease, so will give emphysema."

Ans. "I think morbus cæruleus means disease of the cæcum or more nearly the appendix."

Ans. "Loss of gluteal fold, slight lameness, fullness about joint, adduction and rotation inward, real shortening by measurement due to dislocation of head of bone—lordosis of spine."

Ans. "In dead foetus we have the presence of the tumor which can be palpated and percussed, in connection with all the signs of pregnancy—absence of menses, etc."

There were 44 in a class of 49 who did not know the term morbus cæruleus. Three knew it, but could not give the signs, and but two answered the question in a satisfactory manner. Seventy-five per cent. of the class failed to define Cheyne-Stokes respiration. Sixty-six per cent. failed in differentiation of normal vesicular and bronchial respiration. Sixty-five per cent. failed to bound the inframammary region. The foregoing questions and answers have been selected to corroborate the statement that the teaching of technicalities, regional, and topographical anatomy and the artificial regions of the body, is very defective.

The candidates for examination, whose answers have been submitted, did not all receive their degrees from the same college or from the same school of medicine, neither did they all come from one locality, nor were they examined by the board at the same time. We must not be unmindful of the fact that these were all graduates of medical colleges.

THE LENGTH OF THE MEDICAL COURSE LEADING TO THE DOCTORATE DEGREE.

In examining the requirements of the various medical colleges, one is impressed with the great variation in the time a student is required to study medicine before graduating. A large number of the medical colleges and State boards require a four years' graded course, during which time the student shall attend four courses of instructions of not less than twenty-six weeks each in four separate years. Other colleges require their students to attend four courses of lectures of nine months each in four separate years, before conferring a degree. The colleges requiring six and those requiring nine months claim to teach the same branches with equal thoroughness. The degree received in the former carries with it, in the great majority of cases, all the rights and privileges of the latter. Such a condition is either an injustice to the student in the short term college or an unnecessary expenditure of time in the longer term one. The difference in time of study works a hardship to many of the graduates and great annoyance to some State boards.

As I said in my address last year, under the present method the actual time spent in real study of medicine by a large number of students does

not greatly exceed eighteen months. We ask, in all candor, is it possible for the average student to perform in an efficient manner, the work required by the extensive curricula now found in practically all the medical colleges, in so brief a period? It is impossible. The remedy lies with the State boards. They should require the minimum time spent in the study of medicine to be expressed in hours and clearly designate the number of hours filling the curriculum in each of the four years. State boards should also fix dates by which all the colleges should close their terms, in order to obviate the serious annoyance to the recent graduate of having to wait a number of months before taking the State examination. The college can commence its term at any time it desires, but all colleges should have uniform times at which to close. We would earnestly hope that some provisions can be made whereby all medical colleges may be enabled to close their sessions on given dates, and the minimum time of study be definitely determined, and that such provisions may mutually be concurred in by the Association of American Medical Colleges and the National Confederation of State Medical Examining and Licensing Boards. Such an action would be highly beneficial to the student, the colleges, and the State medical boards. The establishment of uniformity in medical teaching and in the length and character of the medical course, is absolutely essential before inter-State medical license can hope for general recognition.

HOW THESE DEFECTS CAN BE REMEDIED.

When conditions detrimental to our well-being confront us in civil, military, social, or professional life our first thought is, How may they be removed? So, in this case, the question is, Can these difficulties be remedied, and if so, how can it be accomplished? The answer is, adopt a uniform curriculum and method of teaching medicine; pay the teacher a fixed salary commensurate with the labor demanded, and if he fails to perform his duty in an efficient and acceptable manner, remove him; strengthen the faculties by selecting men with special training and qualifications for the positions for which they are selected; raise the minimum standard of preliminary educational requirements, when deficient; make the examination before the State boards thorough and practical, including clinical work at the bedside and demonstrations in the dissecting room and laboratory; grade the manuscripts of candidates for a license to practice medicine, according to their real merit; refuse to recognize any medical college when twenty-five per cent. of its graduates fail to meet the requirements of the various

boards; diminish the number of medical colleges by consolidation; and, finally, failing to accomplish the desired end by all other means, endeavor to have medical colleges placed under State control.

You say these methods are all very good, but how are you going to enforce them? You say, the National Confederation is not a legislative body or a body authorized by law. While we grant that the National Confederation, as an organization, is not vested with any legal power, still its members are officers in their respective States, by virtue of the laws, and can, therefore, embody in the rules and requirements established by the laws which they administer, measures agreed upon by the confederation, and thereby make the measures adopted by the confederation equivalent to law. Many greater difficulties than these have been encountered and surmounted by the medical profession within the past fifteen years. With determined and united efforts within the profession, this important work can be accomplished in a comparatively brief time, without injury or injustice to the college, the student, or the profession.

The principles of evolution apply to all forms of progress. Those best fitted for changed conditions will flourish, while those least in accord therewith will be suppressed. The conditions set forth in this paper are with us and developing greater strength in the minds of the profession every day. They may seem too advanced and radical in their application to some colleges; but believe me, gentlemen, the fault is with the colleges and not with the conditions stated.

We bespeak for the reports of your committees on Curriculum and on Definition of the Practice of Medicine, to be presented to-day, your most earnest and careful consideration, and we trust that they may be adopted.

Women Wish to Replace Men as Health Inspectors.—The Women's Rescue League, of Washington, has submitted a report to the board of health, to the effect that men have proved failures as health inspectors, and that women should replace them; they state that they followed up the men in their recent inspection, and found much that had been overlooked. What seems to be a serious blemish in the report, indicating a lack of a sense of humor in these energetic ladies, is the statement that they were greatly annoyed and frightened by the large number of rats encountered. Perhaps the men could be retained as an advance guard for the women, their duties to be confined to abolishing the rodents; otherwise a health inspecting costume must be devised, omitting the skirt, and including a riding boot.

Original Communications.

THE PSYCHICAL RELATIONS OF TUBERCULOSIS IN FACT AND FICTION.

By G. A. DE SANTOS, SAXE, M. D.,

NEW YORK.

"Der Mensch stirbt an seinem Charakter."

To one who does not enjoy following the beaten paths of medical thought so keenly as roaming occasionally in the by-ways, looking into odd, neglected nooks and corners for the stray waifs of knowledge that may lie there, no subject is of more absorbing interest than the question as to the influence of certain diseases upon the mental and emotional characteristics of a patient. Among the maladies that have been often accused of exerting a most marked effect on the mental sphere of the sufferer, tuberculosis has long occupied a front rank, on account of the prominence which has been given to the psychical relations of consumption in both science and fiction.

In the early days of medicine a great deal of stress was laid on temperament as a cause of disease, but that was before the accurate scientific work of the nineteenth century had begun to reveal the true origin of maladies, the causation of which had hitherto been a profound enigma. To-day we take the view that the composite psychical attribute which we know as temperament, is the result of disease rather than the cause of it; at any rate, we know that diseases, especially chronic ailments, are capable of producing more or less marked imprints upon the set of mental qualities, the series of traits of character, the scale of emotional tones, which constitute temperament. We know that chronic diseases, such, for instance, as tuberculosis and heart disease, are apt to react upon the psychical attributes of the patient, to modify some of them, to render latent others, to intensify still others, and to bring to light characteristics that evidently had lain dormant under the power of self-control.

THE PSYCHOPATHOLOGY OF TUBERCULOSIS IN FICTION.

The laity has long been aware of the fact that consumptives are apt to manifest certain peculiarities of temperament, and writers of fiction have frequently made use, in the framework of their novels, of the psychical attributes believed to be specifically characteristic of tuberculous individuals. Those of the older romantic school, who presented the simpler, stronger, more purely human pictures of life, conceded the value of consumption as a factor in the dramatic development of their work. In the pathos of life's slow ebbing, they discerned an opportunity for striking responsive minor chords; for depicting the despairing tenacity with which

the consumptive clings to life. The characteristic feature of the last days of a fatal case—the delusion of improvement, the subjective amelioration, the revival of hope in one last flickering outburst—gave them the opportunity to work out an artistic climax that showed the short final struggle and the sweetness of a peaceful eternal slumber.

Any one whose interest is aroused by the deeper currents of a theme such as that of *La Dame aux Camélias*, and who has been fortunate enough to see Sarah Bernhardt and Eleonora Duse in the character of *Marguerite Gautier*, will agree that Dumas has given us the best example of a consumptive type in the fiction of the romantic period. The current conceptions as to the emotional make-up of a consumptive woman are illustrated in *Camille* as only Dumas could illustrate. The vacillating moods, the alternate exaltation and depression, the unsatisfied longing for physical, mental, and emotional activity, the exaggerated sensuousness, which are attributed to the typical consumptive, are all raised here to the higher potencies required by this class of fiction and drama, and thus stand out in bold relief.

To turn from Dumas to a more modern writer, we find in Rostand's drama, *L'Aiglon*, the character of the tuberculous youth, the scion of the Eagle before whom Europe trembled till Bonaparte was safely guarded at St. Helena. In their impersonations of the Eaglet, both Sarah Bernhardt and Maude Adams, albeit with variations suggested by individual conceptions of the rôle, have represented most vividly the struggle of a noble soul within a weak frame; the ineffectual efforts of a lofty ambition hampered by a diseased body; the pathetic picture of the frail boy in whom the spirit of his valiant ancestor would at times burst forth, scintillate, and disappear, leaving the delicate, pale-cheeked lad with a hoarse voice and an ominous cough. Here again we see the neurotic tuberculous type, the erratic, uneven temperament, the outbursts of energy, the flashes of wit, the avalanches of passion, the storms of anger sweeping over that weak body; followed by periods of reaction, of depression, of apathy, of helplessness.

Passing on in our brief survey of the tuberculous types of fiction, we come to that group of modern writers who burden their books with complexities of characterization, subtleties of analytic psychology, problems of temperament and environment; whose characters move in the social maze with keenly developed sensibilities and acutely sophisticated attitudes toward moral and social problems. Some writers of this class even go so far as to forfeit the charm of a strongly human and intensely dramatic story through the elaboration of psychological analysis, and make us lose the stream

of melody in the intricacies of figured counterpoint. Mr. Hamilton Mabie (*North American Review*, April, 1903) tells us, however, that Mrs. Humphry Ward, who leans toward this school of writers, does not commit this fault. In her *Eleanor* we find a picture of another type of the tuberculous heroine. The keenly strung temperament, the æstheticism, the intellectuality that characterize the highest products of our complex civilization are portrayed by Mrs. Ward with skill and power, as well as with the lightness of touch that removes any impression of labored artificiality. As we follow the narrative, as we watch the development of the complex psychological problem presented by the story, the conflict of reason and passion, the final victory of reason and of self-mastery, the peaceful calm preceding death, we cannot but realize that the element of tuberculosis was introduced into the tale by Mrs. Ward, not solely as a whim of fancy, but because the psychical make-up of *Eleanor* corresponded with the mental peculiarities met with in some consumptive women of the cultured classes.¹

THE STATUS OF THE SUBJECT IN MEDICAL LITERATURE. THE OBJECT OF THE PRESENT INQUIRY.

Leaving fiction, I come to the work of medical writers who have dealt especially or incidentally with the mental characteristics of tuberculous patients. In scanning the literature of the subject, I found that two phases of this theme had been worked out to sufficient detail, although still by no means so completely as they should be. One of these is the relation of tuberculosis to insanity; the other, the relation of tuberculosis to crime. The former has been studied by a number of writers, notably by Mead (1), Esquirol, Hagen, Georget, Burrows and Ellis, Friedreich, Schroeder van der Kolk, and Skae (2); by Clouston (3) Morel (4) Ball (5) Regis (6) Bernheim (7) and Mircoli (8). The relation of tuberculosis to crime has been given attention by a number of recent writers, notably, by Bonardi and Baccelli (9), Bernheim, (7), Charrier (10), Mircoli (8), Skulteki (11), Cioffi (12) and Fanoni (13).

On the other hand, the psychical relations of the average case of tuberculosis, uncomplicated by marked psychopathological features, but characterized by certain traits that are worth studying, have received but scant attention in medical literature, except at the hands of a few writers such as Engel (14) Letulle (15) Heinzelmann (16) Neumann

(17) Daremberg (18) and Mircoli (8). It is to this phase of the question, therefore, that I shall devote myself chiefly here, including for the sake of completeness brief references as to the status of our knowledge of insanity and criminology as related to tuberculosis.

THE THEORETICAL BASIS OF THE PSYCHOPATHOLOGY OF TUBERCULOSIS.

The fact that tuberculosis produces changes in the mental traits of a patient—changes which may be so profound as to induce insanity and to lead to criminal acts—is now acknowledged by the great majority of observers who have made a study of this subject. How these changes arise has been a matter of speculation and study on the part of a number of authors within the past century. Today, experimental evidence and analogy of reasoning lead to the one plausible theory of the origin of these psychical changes in tuberculosis,—the theory of cerebral intoxication by the toxins of the bacillus of tuberculosis. Long before the present knowledge of the toxic effects of germproducts had taken shape, Morel (19) wrote a treatise on the mental and physical degenerations due to poisoning with various substances (1857). As the real cause of consumption was unknown at that time, nothing was said by Morel of the toxic effects of tuberculosis upon the mind. Clouston (20), writing in 1863, blames anæmia of the brain and the accumulation of carbon dioxide in the blood (Ball (5)) for the insanity of tuberculous patients, which he described most minutely later on, in his treatise on mental diseases (3). It is only since the studies of Koch (21), Cornet (22), Mafucci (23), Maragliano (24), Dufour, and Didé (25), etc., that the mental disturbances of consumption, which range from a slight irritability of the nervous system to mania and melancholia, have been explained as results of tuberculous intoxication.

Mafucci (23) showed that dead tubercle bacilli were capable of producing a general intoxication, and of causing all the symptoms of tuberculosis when injected into animals, and Dufour and Didé (25), who watched the effects of tuberculin injections as they were given in Berlin, in 1891-1892, found that in three out of ten patients they were able to evoke headache and delirium, as well as other cerebral symptoms, by the injection of what are now considered excessive doses of tuberculin. The line of psychical disturbances produced in these tuberculous individuals by means of the toxine of tuberculosis, which was administered to them for the purpose of immunizing them against the disease, seemed to show conclusively that the mental symptoms of tuberculosis were toxic in origin.

¹In a recent sensational novel published in Paris, *Les Embrases* ('The Inflamed'), by M. Corday, the mental and moral (or rather immoral, if we take the author's view) traits of the consumptive are painted in vivid colors, the principal scene being laid in a sanitarium for wealthy patients. I have not read the book, and so refrain from an extended discussion of its features, as given in the reviews. The gross exaggerations in which the author indulges, judging from these reviews, are apt to distort the layman's conception of sanitarium life and so to produce more harm than such books usually do.

Finally, Maragliano (24) clinched the argument by showing that the serum of a tuberculous man was poisonous to rabbits, four or five cubic centimetres of it in each case killing the animal. Cornet's (22) teaching has had a great deal to do with the acceptance of the toxic theory of tuberculous symptoms, and to-day this causation of the psychopathologic phenomena of consumption may be received as the most satisfactory explanation of these changes in the mind and temperament of the phthisical patient.

THE PSYCHICAL TRAITS OF THE AVERAGE CONSUMPTIVE.

To pass on now to the main portion of my study, namely, that concerning the peculiarities of mind and temperament exhibited by the average tuberculous patient, I must begin with the statement that the early stages of consumption are very frequently accompanied by the symptoms of neurasthenia and psychasthenia, and at times, by various grades of hysteria. I cannot enter here into the discussion of the causes of neurasthenia in general, but I may remind the reader that some authors, e. g., Engel (14), believe that all neurasthenias are of toxic origin, and that the neurasthenia of the tuberculous patient is only an example of a toxic nerve exhaustions. However this may be, the fact remains that, in order to understand the psychical peculiarities of consumptives, we must start from the basis of neurasthenia and psychasthenia or of hysteria, and must remember that a strong tendency toward these states exists in the consumptive.

The connection of tuberculosis with hypochondriacal neurasthenia and with hysteria is so close, that its import has been noted by one of the fathers of phthisiology, Richard Morton (26), in whose work on consumption, written in 1689, I have come across the following passage:

"De Phthisi a Melancholia uti etiam ab Hysterica et Hypochondriaca Affectione Orta:—Hypochondriace et hysterice affectos haud raro in phthisico statu longo tempore durare, tandemque a phthisis pulmonaris symptomatis ultimum ejus et funestum statum comitantibus correptos, supremum diem claudere, facile est cuivis in medicina vel tantillum exercitatio deprehendere. . . . A quo cerebri et nervorum tono, spirituum, et sanguinis diatesi, mirari quidem subest, non semper phthisin sequi. Insuper pathemata animi graviora ut plurimum hystericam et hypochondriacam affectionem praecedere, vel saltem comitari omnibus est notum. A quibus phthisis (uti jam in principio hujus discursus inuimus) saepius, quam a frigore, vel aliqua alia de causa originem suam ducere solet."²

Morton, therefore, held that hypochondria and hysteria were very often the causes of consumption,

and this was in line with his general idea of the "symptomatic consumptions" arising from various other diseases, and even caused by certain symptoms, e. g., hæmoptysis. To-day we know, of course, that what Morton took for the causes of the disease, were the effects of it, and that his hypochondriacs and hysterics had been in the latent stages of tuberculosis from the start. At all events, Morton's observations, in the light of our present knowledge, may be regarded as ancient evidences of the fact that the neurasthenic, psychasthenic and hysterical elements are very frequently at the basis of the mental alterations in tuberculous patient.

With the progress of the disease, with the realization of its nature on the part of the patient, there comes into play an element which, I think, forms the keynote of most of the later mental changes of tuberculosis, and that is, *the gradual loss of will-power, of self-control*, which, so to speak, *unmasks* the man or woman suffering from consumption.

Temperament is in most people under normal conditions modified, controlled, mitigated, and softened by the exercise of the will, by self-control, by the influence of education, culture, and the example of the temperaments of surrounding persons. In other words, temperament is masked and modified by several external influences under the ordinary conditions of civilized life. With the progress of disease, the screen of self-control, the barrier of will-power, the constraint of education, are gradually swept away and the true fundamental traits of character are brought to light. The theory of politeness is unselfishness, self-denial, sacrifice; hence, when the supreme instinct of self-preservation begins to speak insistently, when *self* becomes the centre of the mental sphere of the patient, when his condition, his momentary subjective sensations, become the centre of his solicitude, the tuberculous patient ceases to think of anything but himself.

Of course, the degree to which a patient loses self-control varies within the widest limits, with both the natural temperament of the sufferer, and the gravity of his condition, but the *loss of self-control and the ascendance of selfishness* play the most important parts in the moulding of the mental traits of the tuberculous. In some consumptives these two factors are so strong that they completely reveal the concealed elements of their character.

There is one thing, however, that most patients seek to mask to the end; to hide not only from the

hysterical often live in the consumptive state for a long time, and finally die, being seized with the symptoms accompanying the last and fatal stage of the disease. . . . It is to be wondered at, in fact, that consumption does not always follow this diathesis of the brain, nerve-tone, spirits, and blood. Besides, it is known to everyone that some very severe diseases (affections: literally, passions) of the mind usually precede or at least accompany a hysterical and hypochondriacal affection. From these, as we have already seen in the beginning of this discourse (Lib. 1. Chap. 1, p. 6), more often than from a cold or other cause, consumption is wont to take its origin."

² "Any one who has been practising medicine even a little, may easily note that persons that are hypochondriacal and

outer world, but from themselves also, and that is the true danger and significance of their disease. The complex psychological problem presented by a consumptive has been hinted at by Engel (14). The patient, as a rule, does not feel very ill until the later stages of the disease; for of all fatal maladies, consumption keeps its victims the longest in a comparatively comfortable condition. In a slow, chronic case, therefore, the patient makes every effort to appear well, and to lead, at least outwardly, the life of a healthy person. He does not suffer intensely, will not believe that he is dangerously ill, and therefore seeks to appear well as long as possible. He at times knows in his own mind that he is getting worse, but he keeps up the comedy and clings to health as long as he can.

In the mental state of the consumptive, dominated by the factors mentioned, and in the presence of an enfeebled body, it is not astonishing to find in most cases an *abnormally increased susceptibility to external mental influences*. The psychical control which a physician with a strong personality exercises, is notoriously more marked in consumptives than in any other class of patients. It is for this reason that in consumption, above all diseases, the patient's absolute confidence in his physician is the first essential to any success in treatment, and those who have had the opportunity of observing the relations between the physicians and the patients at sanatoria for consumptives, agree that the consumptive becomes readily and deeply attached to his physician, although he does not always acknowledge it, after he has been severely disciplined for disobedience. The extreme ease with which the mind of the consumptive is influenced, not only by a strong personality, but by autosuggestion through the patient's own efforts, is the explanation of the fact that the use of any remedy whatsoever may produce subjective improvement in a patient for a time, and that hypodermic injections of water are occasionally most efficient hyponotics in tuberculous patients.

This susceptibility to suggestion and to autosuggestion in consumptives extends beyond the bounds within which it is observed in other diseases, and gives origin to a perfect network of superstitions, beliefs, and delusions with which the consumptive surrounds himself. His ideas of what is good or bad for him are derived from purely accidental occurrences or from hearsay through irresponsible persons. He is firmly convinced, for instance, that his improvement is due entirely to the "air" of a place, that to return to a different "air" would be fatal. He attributes every change to some trivial circumstance—an imaginary dampness, the closeness of a room, the thickness of the bedcover-

ings or the clothes, a chance draught, an open window, etc.

Such, in general, is the mental attitude of the tuberculous patient to the outer world. In his attitude toward his disease the consumptive may be placed in one of two main groups, the optimistic and the pessimistic. To the optimist every cloud has a silver lining. Each sign of danger is interpreted to his advantage and is accounted for by some accidental occurrence. He will not believe that he is getting worse, no matter what may happen. Such a patient is certainly to be preferred to the pessimist, the hypochondriac, who watches himself closely from hour to hour; who counts his own pulse and respiration, and measures his own temperature all day long; and who constantly discovers new and alarming features in his own case. If the optimist is only sensible enough, in spite of his lightness of heart, to obey orders, he makes a very satisfactory patient to treat; to deal with a pessimist of the pronounced type is truly a task of Sisyphus.

The *extreme variability of temper*, the alternations of depression and boisterous hilarity, form one of the most noteworthy traits of character common to consumptives (Dettweiler (27), Cornet (22), Heinzelmänn (16)). A patient's mental attitude may vary within the widest extremes. One day he is dying; he has made his will, and he bursts into tears in parting from a friend who has chanced to visit him. A few days later he is celebrating his recovery with a champagne supper (Heinzelmänn (16)). In most cases, of course, this variability of temper is not so pronounced, but nearly every consumptive shows this trait more or less markedly. In all probability it is referable to the elements of neurasthenia and psychasthenia which so frequently obtain in these patients.

The loss of self-control renders some patients extremely irritable, peevish, quarrelsome, intolerant of contradiction; and, as we have hinted before, breaks the barriers which politeness and culture have artificially placed about his natural temperament. The irritability of the nervous system and the fitfulness in disposition result also in a peculiar unrest, a constant desire to do impossible, childish, or unusual things, a continuous thirst for mental and physical activity. Yet the very capriciousness of the neurasthenic consumptive prevents him from pursuing any form of mental or physical activity for any length of time. Later on, there is added the factor of *extreme susceptibility to fatigue after any mental or physical exertion*. The patient can no longer think systematically. He cannot apply himself to reading, to study, or to any intellectual task. He can no longer concentrate his

thoughts. Heinzelmann (16) calls attention to the tendency of the educated consumptive to seek the society of persons of a lower degree of intelligence, because in their company the flow of conversation is easy and does not entail any mental strain.

Conscious of the fact that they excite pity, fear of contagion, or even disgust, some consumptives are seized with a peculiar *timidity*, a desire to avoid all society, and, in the presence of strangers, knowing or believing that they are watched closely, are subject to palpitation of the heart and confusion of ideas. In some consumptives the susceptibility to emotion is greatly increased through loss of self-control, so that men are at times very easily moved to tears—for example in reading a novel—and their disposition becomes in many respects childish and soft.

In considering the mental traits of the consumptive, we cannot omit a brief discussion of the question as to the *sexual instinct in tuberculous individuals*. The popular notion has been for ages, and still is, that the sexual desire is exalted in consumptives; that tuberculous women are apt to be more inclined sexually and more prolific than normal women of the same race and class of society; that a man with tuberculosis is subject to increased sexual irritability. A review of the writings of modern authors who deal with this question shows that opinions are divided, and that, while some support the popular theory, others reject it. Heinzelmann (3), for example, admits the increased sexual irritability of the tuberculous, and attributes it partly to recklessness resulting from a knowledge of the incurability of their disease, and partly to an increased irritability of the nervous system in tuberculous patients. Gerhardt (29) tells us that the fact that venereal diseases are more frequently met with among consumptives than among other patients, is accounted for by the increase of the sexual appetite in tuberculosis. Reibmayr (30) shows by statistics that tuberculous women are more prolific than normal women, and attributes this fact to the tendency in nature to compensate by quantity for the depreciation in the quality of the offspring brought about by disease.

The subject was approached from still another viewpoint by Hartsen (31), whose article is chiefly noteworthy for the reply to it, by Virchow (32), which appears in the same number of the *Archiv*. Hartsen took the view that marriage should not be prohibited to consumptives, as it improved their general comfort and prolonged life, and that, inasmuch as the life of a consumptive was short and sad enough in itself, the pleasures of love should not be denied him. Virchow opposes this view in his own characteristic style. Nevertheless, there

runs through the latest literature of the question of tuberculosis and marriage a strain not very unlike Hartsen's idea, marriage when possible, being permitted to consumptives, whose disease is not too far advanced, on account of its psychological as well as physical benefits.

In the tuberculous insane (*vide infra*) increased sexual irritability, and even satyriasis and nymphomania, have been observed by Chartier (10) and by Cullere (33). The latter observed satyriasis in a case of latent tuberculosis with insanity, the details of which are convincing.³

The majority of authors, however, deny the existence of any increased sexual propensities in the tuberculous. Louis (34), in 1825, supported the negative side of this question, and remarked that he could not understand how a disease that caused debility and atrophy of the tissues could produce the increase of a function which was dependent upon the best possible condition of nutrition. Grisolle (35) agrees with Louis, and characterizes the popular idea as one of those errors which have reached the status of articles of faith, so long have they prevailed.

The solution of this question is manifestly most difficult, on account of the lack of any basis for collecting data thereon, the individual personal equation of both observer and observed in this matter being the only measures upon which an opinion may be founded. But it may be said that the observations of most physicians who have to deal with a large number of consumptives,⁴ show that sexual irritability may be indeed increased in the first stage of the disease, but that with the progress of tuberculosis, with the gradual decline, atrophy, and dissolution, the sexual function, like all other life processes, is rather impaired than exalted.

(To be concluded.)

Rochester Death Rate for June.—The death rate for Rochester, for June, 1903, exceeds that for the same month last year by 42. Phthisis caused 44 deaths; diphtheria, 7; erysipelas, 2; measles, 4; scarlet fever, 1; and typhoid fever, 9. Thirty-five deaths from cancer were reported, 13 from apoplexy, 8 from heart failure, 36 from pneumonia, and 5 from appendicular inflammation. Six persons are reported to have died from alcohol.

³ An interesting theory has been suggested by Mirogla (8) concerning the causation of increased sexual irritability in tuberculosis. He says: "If you want to know whether tuberculosis increases the sexual appetite, place a couple of tuberculous guinea pigs in one cage and a couple of healthy ones in another cage, and observe the results. Nucleotuberculinic acid is one of the principal constituents of sperma (Mischl. Poehl), and sperma is one of the principal excitants of the sexual functions."

⁴ A collection of opinions on this subject, by the foremost authorities, will be found cited by Wehli, *Beitrag*, 1900: VII, p. 67.

THE DEATH RATE OF PNEUMONIA.*

By THOMAS J. MAYS, A.M., M.D.,

PHILADELPHIA, PA.

Much is written and spoken about the marked prevalence of pneumonia in this country. Both the medical and the lay press are competing with each other in picturing the enormousness of this latest mortality development. We are asked to believe that this disease, which in former years conserved a comparatively ordinary death rate, has, in recent years, sprung into such undue prominence that it bids fair to become the most formidable life extinguisher of the age. Indeed, one authority¹ maintains that from 1860 to 1900 the death rate from pneumonia reached the colossal increase of more than 350.00 per cent. in the city of Chicago, and this in spite of the fact that the general death rate in that city diminished nearly one-third in the same time.

It must be admitted that this is a startling and seemingly incontrovertible statement. But when one appeals to his own experience and to that of others who have likewise been in practice for 30 years or longer, it does not appear that on the whole there is such a striking increase in the number of pneumonia cases over those which were encountered years ago. Yet it is alleged that statistics show differently, and it was this apparent contradiction between figures and experience that led me to look into the data of this disease.

Practically speaking, pneumonia is a perennial disease throughout the world, although its greatest fatality is in the winter season. Yet, in keeping with the law that the same causes always produce the same results under the same circumstances, it must be accepted that the cause or causes which underlie its development in one locality also underlie it in another. Taking for granted, then, that the intimate ætiology of this disease is the same everywhere, it is evident that the best way to obtain a true idea of its mortality is not only to gather statistics of one or two localities, but to obtain as large a mass of truthful figures from as many and as varied sources as possible. It must not be forgotten, in this connection that, owing to their manifold and heterogeneous origin, it is quite obvious that no absolutely correct death statistics exist anywhere. This obtains especially in nearly all the States of this country, where, in fact, no pretension is made to furnish statistics, except those of the census man, who makes a guess at them every decennium. From a long familiarity with the health reports of our

large cities, and of the States which are herein utilized, I believe that, on the whole, they are as trustworthy as any statistics dealing with concrete social phenomena can be made. The figures on which this paper rests come from the health reports of Philadelphia, New York, Chicago, Boston, St. Louis, San Francisco, Buffalo, the District of Columbia, Richmond, Baltimore, Reading, Louisville, Rhode Island, and New Jersey, representing a total of over eleven million inhabitants, and in most instances they cover a period of 25 years—from 1876 to 1902. In order to show the proper relational course of pneumonia to allied diseases, I have introduced a number of tables and charts relating to the death rates of phthisis and heart diseases, with which its own death rate may be compared. By way of explanation it may be stated that as few figures are employed as is

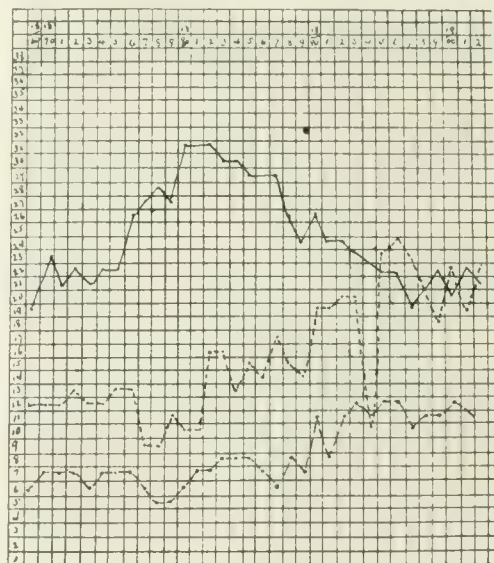


CHART I.—Philadelphia.

consistent with the elucidation of the object in view; that the death rate in each disease has been reduced to a per mille basis, and that each division line on the charts represents one-tenth of a mille. The black line represents phthisis, the upper dotted line pneumonia, and the lower chained line, heart diseases.

Even a cursory view of this mass of statistics shows a disproportion between the number of deaths that occur before and after the latter eighties or early nineties. Closer examination shows that approximately more than 40 per cent. of pneumonia, more than 90 per cent. of heart disease, and about 29 per cent. less of phthisis occur after this period than before. This becomes still more apparent in the charts, which are here submitted. In each of these, except that of Reading and of the District of Columbia, which show it a little later,

* Read at the American Climatological Association's meeting at Washington, D. C., May 14, 1903.

¹ Editorial, *Journal of the American Medical Association*, January 24, 1903, p. 248.

there is a rise in the tracing of pneumonia and heart diseases, and a corresponding fall in that of phthisis, about the year 1880. Another point is brought out by the graphic method which is not so vividly conveyed by the figures—viz.: that there are two sharp and pronounced elevations and immediate depressions in most of the tracing of pneumonia about the years 1890 and 1900. In fact, it seems as if 1890 and 1900, or thereabouts, are the points at which the pneumonia and phthisis lines cross or touch each other, and either run a parallel course afterward, or the former rises above the latter.

In the chart for Philadelphia, No. I, it is seen that the tracings for pneumonia and heart diseases almost pursue parallel courses from the beginning to the end. The increase in the death rate between 1869 and 1902 is 83.33 per cent. in both cases. The phthisis tracing, on the other hand,

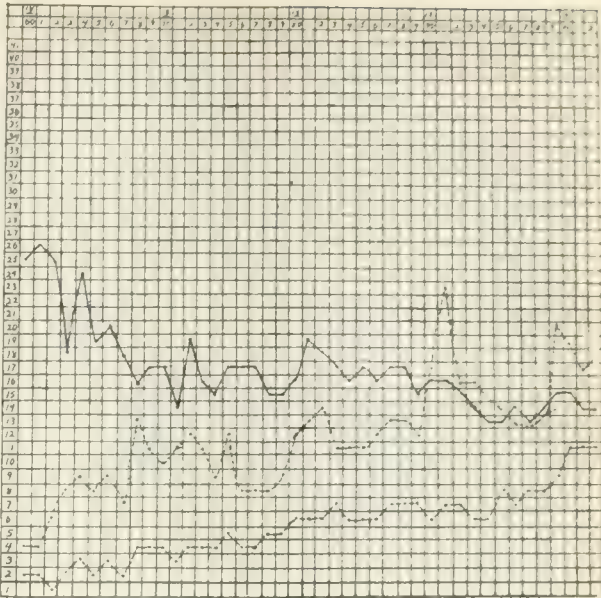


CHART III.—Chicago.

show no extraordinary increase. If the phthisis death rate is computed in the same way as that of pneumonia, it will be found that this is 3.97 per mille for the first and 2.94 per mille for the last 18 years; or 25.94 per cent. greater decrease in the latter than in the former period.

In the city of Chicago the tracing of pneumonia, No. III, extends over a period of 42 years, 1860 to 1902, rises after the first year's record, and reaches its high water mark in 1891, with a fatality 91.66 per cent. greater than in 1880. During the 42 years it increases 350.00 per cent., which is much greater than that of any other locality comprised in this investigation. As a counterpart to this, the deaths from heart disease, computed in the same

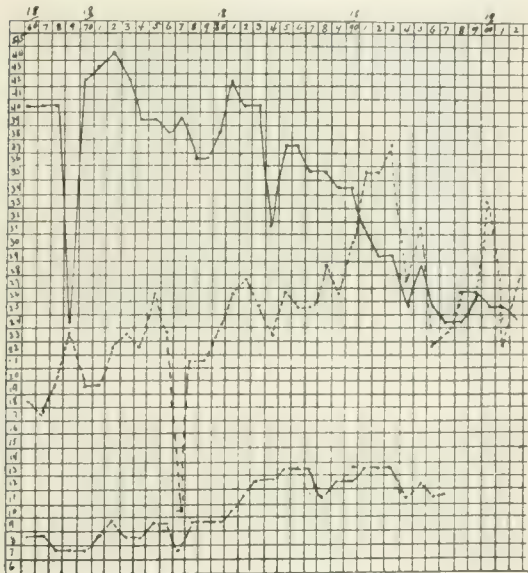


CHART II.—New York.

ascends rapidly until 1882, then takes a downward course to 1897, and from this point it rises and shows an increase in its death rate of 7.24 per cent. during the last six years. The decrease in the number of phthisis deaths from 1881 to 1892—10 years—is 22.58 per cent., and from 1891 to 1902—10 years—it is 12.50 per cent.; or, in other words, the decrease is about 80 per cent. greater during the former than during the latter 10 years.

The tracings for New York, No. II, cover a period of 37 years, and the annual average pneumonia death rate for the first 18 years of this period is 2.17 per mille; that of the last 18 years is 2.94 per mille, or 34.10 per cent. greater increase in the latter than in the former period. The data for a complete tracing of deaths from heart disease are wanting in part, but, so far as given, they

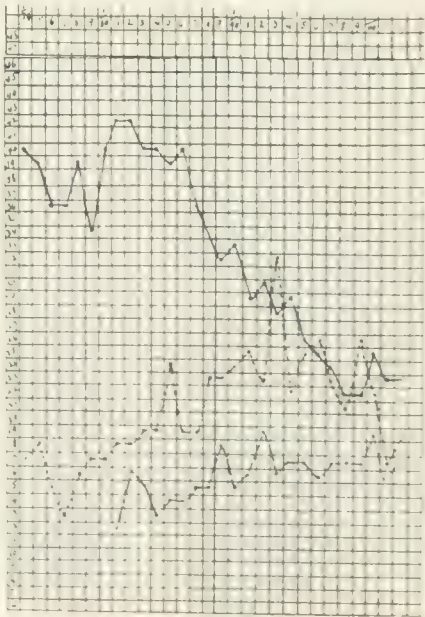


CHART IV.—Boston.

way as those of pneumonia, increased 450.00 per cent. during the same period. The tracing of phthisis shows marked diminution—rapid at first and more gradual afterward. Thus the average decrease in the first decade, from 1860 to 1870, is .82, and in the last decade, from 1892 to 1902, it is only .17 per mille; or 382 per cent. greater decrease in the first than in the last decade.

The tracing of pneumonia for Boston, No. IV, shows an increase of 88.23 per cent. from 1874 to 1893, and a decrease of 40 per cent. from the latter

1881 to 1902. The pneumonia tracing retains about the same level until the precipitous rise in the nineties begins and ends, after which it pursues another, but a lower, level than before. The phthisis line maintains an average level until 1891, but in the next five years it decreases 40.00 per cent., while in the succeeding and last six years a slight increase takes place.

The chart for the District of Columbia, No. VII, covers a period of 26 years, from 1876 to 1902. The pneumonia tracing is peculiar, inasmuch as

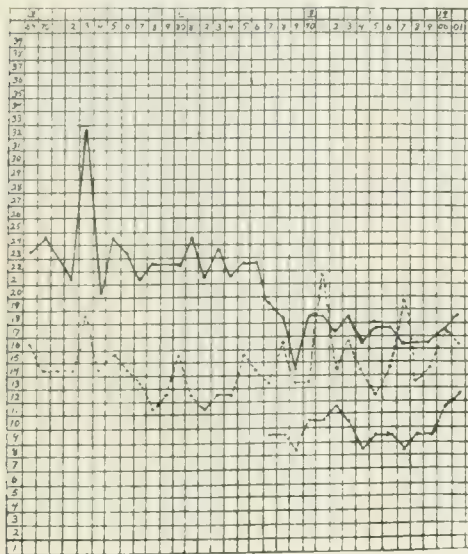


CHART V.—St. Louis.

year to 1902. The tracing for deaths from heart disease shows some, but no noteworthy, increase. The tracing for phthisis gives a rapid descent from 1882 to 1899, and from that point to 1902 a slight increase.

The tracing of pneumonia for St. Louis, No. V, gives the usual spurt upward in the early and later nineties, but shows no marked rise anywhere in its whole course from 1869 to 1901. The tracing for heart disease is incomplete. Barring its precipitous ascent in

1873, the phthisis tracing remains very nearly on one level until 1886, whence it gradually declines until 1899, after which a slight rise occurs for the remainder of the line.

The chart for Buffalo, No. VI, extends from

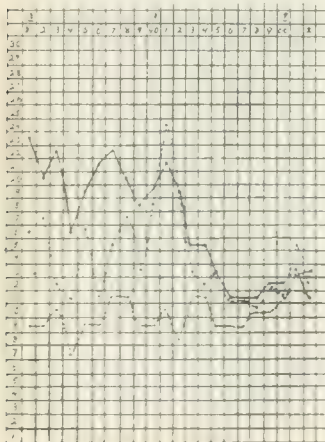


CHART VI.—Buffalo.

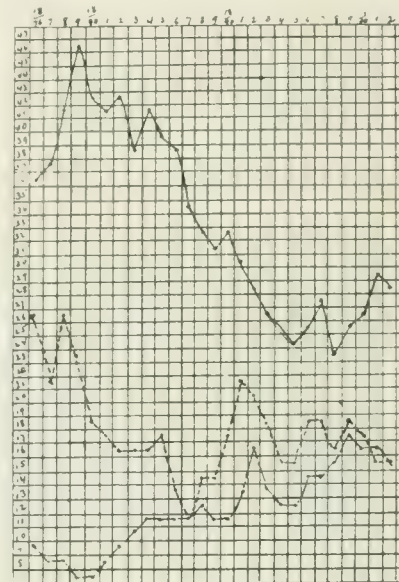


CHART VII.—District of Columbia.

there is a rapid, and almost uninterrupted, fall from 1878 to 1887—showing a decrease of 48.83 per cent. in the pneumonia mortality during that time. Then occurs a sudden rise until 1891, and from that point until 1902 there is a decline of 28.56 per cent. in its death rate. The phthisis tracing is still more interesting. During the first four years it makes an almost perpendicular rise—swelling the death rate 27.77 per cent. in that time; then it falls abruptly from 1879 to 1895, and gradually ascends again from the latter year to the end. The decrease from 1879 to 1895 embraces a period of 17 years, and amounts to 47.82 per cent., and of this diminution 29.92 per cent. occurs in the first 8 years, and 17.90 per cent. in the last 8 years of this period, or a decrease of 59.47 per cent. greater in

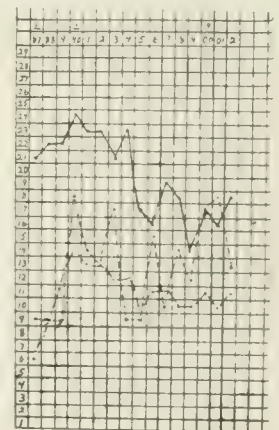


CHART VIII.—Richmond, Va.

the first than in the last 8 years. In the last 7 years—from 1895 to 1902—the death rate from this disease rises 15 per cent.

The tracing of the mortality of heart diseases ascends gradually from the fifth year until 1902, and the average difference between its first and its last four years shows an increase of 105.00 per cent. in the deaths from affection of this organ during that time.

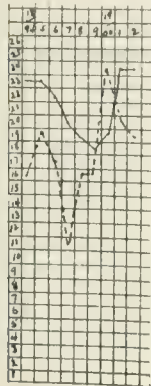


CHART IX.—
Baltimore.

Chart No. VIII represents corresponding statistics for the city of Richmond, Va., for 16 years—from 1887 to 1902. The tracing for pneumonia makes about an even average from beginning to end, although in the last year there is a decrease of 27.21 per cent. The tracing for diseases of the heart indicates, on the whole, a slight increase in the causes of death from this source. The phthisis death rate remains about the same until the year 1894, after which it rapidly declines until 1899, and from this point to the end—4 years—it increases 28.56 per cent.

Chart No. IX relates to the city of Baltimore, and only covers a period of 9 years from 1894 to 1902. The tracing which pertains to the death rate of pneumonia shows the usual dash in the early nineties, and also in 1900; and, on the whole, there is an increase of 21.76 per cent. of the mor-

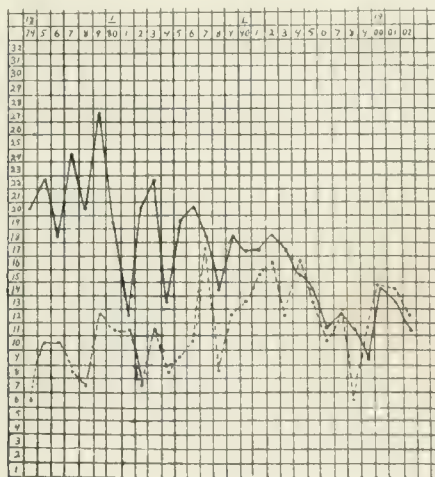


CHART X.—Reading, Pa.

tality from this cause; although in the last 3 years—1900 to 1902—there is a decrease of 27.22 per cent. From 1895 to 1899 the phthisis tracing shows a decrease of 21.73 per cent. in the number of deaths from this source, and from the latter year to 1902 the same increases 33 per cent.

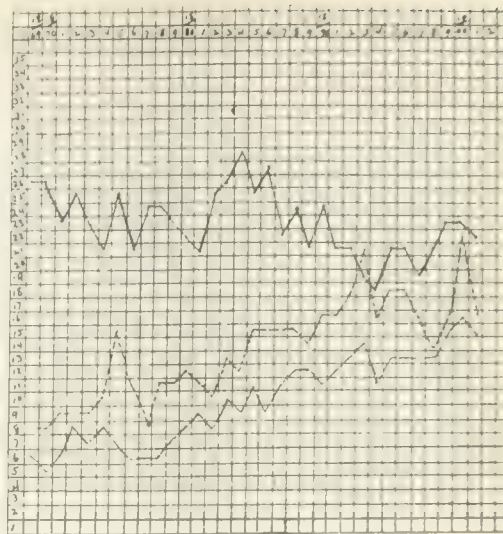


CHART XI.—Rhode Island.

The tracing of pneumonia in chart No. X, which extends over 27 years and pertains to the city of Reading, gives an increase in the death rate from this disease 28.86 per cent. greater in the last than in the first half of this period. The phthisis tracing is exactly the reverse of this. The deaths from this source are 36.00 per cent. more frequent in the latter than in the first half of this period.

Chart No. XI represents the State of Rhode Island for 33 years. The tracing of pneumonia rises almost continually from the beginning to the end, and indicates an increase of 100.00 per cent. in the death rate of this disease during that period; and that for heart diseases has a similar ascent and shows an increase of 133.00 per cent. in the death rate from this cause for the same length of time. In the case of phthisis there is a decrease in its death rate of 11.53 per cent. from 1869 to 1880; an increase of 17.39 per cent. from 1880 to 1884; a

decrease of 30.76 per cent. from 1884 to 1894; and finally an increase of 22.00 per cent. from 1894 to 1900.

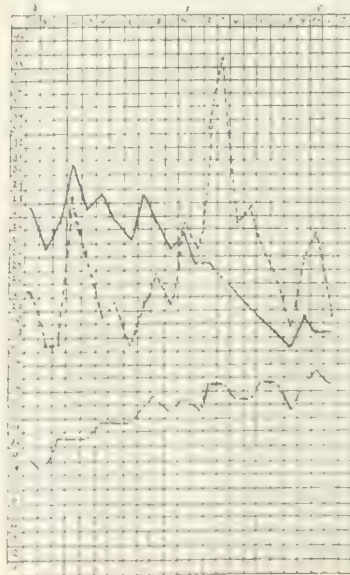


CHART XII.—New Jersey.

Chart No. XII represents the State of New Jersey, and covers a period of 23 years. The acute spurt which occurs in the early nineties in the pneumonia tracings of nearly every chart here-

with presented, is especially prominent here, since it rises more than 50 per cent. over its base in 3 years. There is an increase of 80.95 per cent. of pneumonia from 1879 to 1893; and a decrease of 50.00 per cent. of the same from 1893 to 1901. From deaths due to heart disease there is an increase of 55.55 per cent. during the whole period. The tracing of phthisis shows some increase in the death rate from this disease up to 1882, and from this period to 1898—17 years—there is a diminution of 36.66 per cent. in its death rate, and from the latter year to the end there is a slight increase.

A composite chart built on the combined average death rate of each city and State for each year gives tracings which bring into prominence the common characteristics of each disease under consideration. Chart XIII represents the death rate

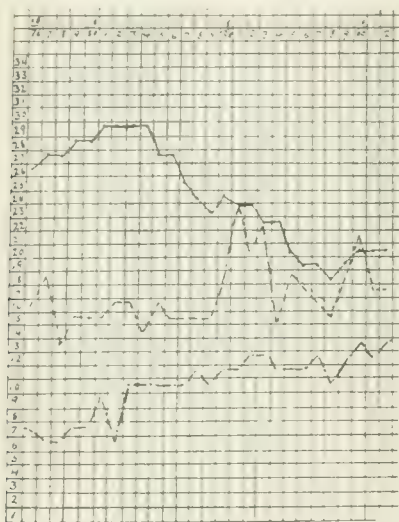


CHART XIII.—Composite chart of the death rate of pneumonia, phthisis and heart disease in Philadelphia, New York, Chicago, Boston, St. Louis, San Francisco, Richmond, Buffalo, District of Columbia, Reading, Baltimore, Louisville, Rhode Island and New Jersey, representing a population of 11,005,106.

of pneumonia, phthisis, and heart diseases, for Philadelphia, New York, Chicago, Boston, St. Louis, San Francisco, Richmond, Buffalo, District of Columbia, Reading, Baltimore, Louisville, Rhode Island, and New Jersey, in a composite form from 1876 to 1902. The marked characteristic upward jump of the pneumonia tracings seen in the single charts around the early nineties and 1900, is well defined here in the same years. The total increase of pneumonia for the whole period is not quite 10 per cent. The total increase of deaths from heart diseases is 85.85 per cent. From 1884 to 1898—a period of 15 years—the tracing of phthisis shows a reduction in the death rate of this disease of 18.18 per cent., and from 1898 to 1902—the last 5 years—it gives an increase of 11.11 per cent.

In summing up the results of this investigation the following points seem to be fairly well established: First, there is no good reason for believing that pneumonia has gradually sprung into such prominence as to cause present or future alarm; for its highest death rate occurred before 1896, and since that time it has declined 21.17 per cent. Compared with heart diseases as a death menace, if such a term is permissible, pneumonia ranks rather low; for, in Chicago, the latter increased 350.00 per cent., and the former 450.00 per cent. in 42 years. In the District of Columbia there is a marked decline in the pneumonia rate during the 26 years, while the deaths from heart disease increased 105.00 per cent. in the same time. In New Jersey, during 23 years, the deaths from pneumonia increased 30.95 per cent., and from heart diseases 55.55 per cent. In the composite chart the total increase of pneumonia deaths is not quite 10 per cent., while those from heart diseases increased 85.85 per cent.

Second, that in a number of the above named localities the phthisis rate diminished from the beginning of the record; that there is a reduction in all of them in this respect from the early eighties to 1898, and that from the latter point of 1902 there is a general net increase. Thus Philadelphia, St. Louis, the District of Columbia, Baltimore, Louisville, San Francisco, and Rhode Island give a total increase of 117.17 per cent.; New York a decrease of 4.15 per cent., while Chicago, Buffalo, Richmond, Reading, New Jersey, neither increase nor decrease, leaving, therefore, a net phthisical increase of 113.02 per cent. for the last five years, or between 1898 and 1902.

Third, that the natural average decrease in the death rate of phthisis is between 2 and 3 per cent. a year. This is shown in the composite chart, and in all the other charts in which a persistent decline occurred for a number of years in succession.

On the whole, we may, therefore, conclude that deaths from pneumonia are decreasing; that deaths from disease of the heart are increasing; and that deaths from phthisis decreased until five years ago, but have markedly increased since that time.

New Children's Hospital in Milwaukee.—Mr. and Mrs. H. H. Camp have given the Camp home-
stead as a foundation for a children's free hospital in Milwaukee. About \$10,000 will be spent in alterations. Among the novelties will be a special serving room, from which meals can be served direct to occupants of the surgical wards. The remainder of the \$25,000 subscribed by friends will form a nucleus of an endowment fund.

DHOBIE ITCH.

By CHARLES F. MASON, M.D.,

MAJOR AND SURGEON, U. S. ARMY,

FORT SAM HOUSTON, TEXAS.

The term, "dhobie itch", and the diseased condition to which it is applied, constantly confront us in the tropics. The name is applied by the laity to almost any form of itching skin eruption in the axilla or groins, or upon the feet, and the word "dhobie", which in India means "laundryman", indicates the popular belief, more or less well founded, that the disease is spread through the filthy habits of this indispensable member of society. Certainly when those habits are considered there is ground for the belief; washing the clothes as he does in cold water without boiling, and then spreading them upon the ground to dry might seem sufficient, but in the Philippines, at least, it is not unusual for the "boy" to wear your underclothes a time or two before he brings them back.

There are at least three distinct forms of skin disease occurring in the regions indicated, which are commonly known as dhobie itch; two of them are mycotic, those due to the *Microsporon minutissimum* and to the trichophyton, and one bacterial, pemphigus contagiosus.

These diseases are very wide spread in the tropics and often cause a considerable amount of suffering and discomfort. The germs, growing on warm, moist surfaces, such as the crutch, axillæ, and feet, cause intense irritation and itching, so that, especially at night, the patient cannot sleep; the scratching leads to abrasions, and these, becoming infected, to boils and small abscesses, so that the patient often cannot walk, or even dress himself. With the advent of the cool season the irritation subsides somewhat, and upon return to a cold climate the disease disappears spontaneously, to reappear sometimes under favorable conditions. It has been introduced into the Southern States of this country by soldiers returning from tropical service, and will no doubt soon become endemic among us, especially when clothing is not laundered by boiling; there are constantly cases under treatment at this post.

The diagnosis and treatment will depend upon the type of the disease, whether mycotic or bacterial, and must therefore be considered under separate headings.

Pemphigus contagiosus.—This very contagious disease, which always prevails very widely among our soldiers on first going to the Philippines, is characterized by an eruption, most marked in the crutch and axillæ, of vesicles about the size of a pea or larger; these vesicles spring from an unin-

flamed base, and are unattended by fever or other constitutional disturbance. The fluid of the vesicles, at first clear, soon becomes turbid, about which time the vesicle is ruptured or dries up, leaving a smooth, pink, glazed surface with an edge of epidermis more or less undermined. The eruption gives rise to considerable irritation, the successive crops of vesicles running into each other and rendering the parts raw and sore.

The disease is distinguished from chicken pox by its distribution and the absence of constitutional symptoms, and from the mycotic dhobie by the freedom from rings, and the absence of mycotic elements, as demonstrated by examining scrapings under the microscope.

The treatment consists in thorough cleanliness of the parts and of the underclothes, sponging the affected region twice a day with solution of mercury bichloride 1-1000, which is allowed to dry and is then followed by dusting with a powder containing equal parts of zinc oxide, boric acid and starch.

Mycotic dhobie.—The diagnosis is easily made by observing the festooned rings with raised margins, and is confirmed by finding the trichophyton elements microscopically in the scrapings. Sometimes, however, when there is much inflammation these elements cannot be found, even when they are undoubtedly present.

The treatment consists first, in keeping the parts clean and dry. Then there are several medicinal agents which are almost specific; they should be thoroughly applied, once or twice a day, to the edge of the rings and a little beyond, and to all the new spots. Sometimes it is necessary first to shave a hairy part. In my experience the following agents are effective in the order named: tincture of iodine; glacial acetic acid; 5 per cent. chrysophanic acid ointment; 10 per cent. salicylic acid ointment; and 1:500 alcoholic solution of corrosive sublimate. The last is the most painful.

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Stegomyia Fasciata Indicted.—Surgeon-General Wyman has submitted a report regarding the work of the commission that has been making researches at Vera Cruz, Mexico, on yellow fever. The following report was returned: "That the bacteriologic examination of the blood of cases of yellow fever during life and the blood and organs at autopsy performed immediately after death in uncomplicated cases is negative. The *stegomyia fasciata*, when contaminated by feeding on a case of yellow fever forty-one and a half hours after the onset of the disease and subsequently fed on sugar and water for twenty-two days, one and a half hours, can, when permitted to feed on a non-immune individual, produce a severe attack of the disease."

COMPLETE REMOVAL OF THE LEFT VOCAL CORD FOR MALIGNANT DIS- EASE: PRESENTATION OF THE PATIENT.*

By WALTER F. CHAPPELL, M. D., M. R. C. S., ENG.,
NEW YORK

A favorable experience in the treatment of malignant disease of the larynx should undoubtedly be reported, as too often the results of treatment in these cases are discouraging, and lead many to believe that an early diagnosis and the best of efforts are of no avail.

I will not repeat the statistics of results in the operative treatment of malignant disease of the larynx, but any one interested in this subject will find them brought up to date, and fully and explicitly discussed by Dr. Frank Hartley, in the *New York Medical Journal*, for December 13 and 20, 1902.

Some two years ago one of my patients presented himself at my office, complaining of hoarseness, which, on examination, I found to be caused by a general laryngitis, and a minute laryngeal tumor. From the first I feared the growth was malignant, but it was very small and resembled one of the large granulations seen in chronic laryngitis. I did not have the courage of my convictions so far as to recommend an immediate operation, but decided to take a middle course and carefully watch the larynx and the growth, and to select such treatment as the symptoms and appearance indicated. The full history of the case is as follows:

William T., age fifty-six years. Family history negative regarding tumors or growths. One brother died of pulmonary trouble, presumably tuberculous. Two brothers and one sister alive and in good health.

Past history. Has had no serious illness, but for many years suffered more or less from colds and catarrh of the upper air tract, which he thought due to excessive smoking, having at one time averaged fifteen large cigars a day. For years during the cold weather he was hoarse and his voice became weak and husky at times.

During the winter of 1900 he was quite hoarse for a couple of weeks, and while speaking would suddenly lose control of his voice and emit a high squeaking sound; to prevent this he was obliged to lower his voice and speak in a whisper. He always recovered from his hoarseness and voice attacks as soon as warm weather returned.

Early in January, 1901, Mr. T. contracted an unusually severe cold, which took the form of a rhinitis and laryngitis. The nasal symptoms and other evidences of cold continued for about three weeks, but the hoarseness remained. He did not consult a physician for this attack or for the re-

maining hoarseness, as he considered it one of his usual winter colds. He came under my observation on the first of April, 1901, as his family were anxious about his voice, which was becoming more hoarse, although the weather was warm.

On examination the following conditions were found: Laryngoscopic Examination: The mucous membrane of the pharynx and larynx was generally red and thickened, this was especially marked over the ventricular bands and vocal cords; in fact, it was hard to define a dividing line between them. The arytenoid bodies were slightly enlarged and did not move with readiness. The epiglottis was the largest I have seen, also thick and stiff, and had to be thoroughly cocaineized and held forward by a specially designed retractor before the interior of larynx could be seen. A small red growth was then visible anteriorly on the left cord, extending to its attachment and on to its under surface into the anterior commissure. For some time it was uncertain whether the growth was attached to the tracheal wall or not, but eventually it was decided that it did not include the trachea. The body of the growth did not exceed in size a small French pea, but its base was considerably thickened and gradually joined the surrounding tissues. Daily applications of adrenalin solution, followed by weak astringents, were made to the interior of the larynx for a month. The mucous membrane improved in appearance, and as there was no apparent change in the growth, the tentative treatment was continued through May. During the last few days of May it was noticed that the growth was increasing in size, but it still remained of a deep red color with no ulceration. The patient was told that the condition of his throat was a serious one, and that the growth was probably malignant in character.

During the month of June the patient was seen by Dr. Knight, Dr. Rice and Dr. Delevan, of New York, who all expressed their belief that the laryngeal growth was an epithelioma. Up to this time no effort had been made to remove any pieces of the growth, as it was feared that by so doing the infection would be extended. During the month of July there was no appreciable increase in size of the tumor, and Mr. T. was very comfortable, but during August there was again some evidence of growth, and by September it had attained the size of a Maraphat pea. In appearance it was still very vascular, but had several whitish looking spots on its surface, but no ulceration. Early in September the breathing was somewhat obstructed, especially at night and on exertion. Considerable coughing and mucous secretion appeared about this time. Two small pieces of the growth were removed by a snare on September 18th. This was done under great difficulties, on account of the position and shape of the epiglottis, which eventually had to be held forward by a piece of silk, passed through it by a specially constructed needle. The following reports were received from the gentlemen who examined the pieces removed from the larynx:

Mr. L. B. Goldhorn, of the Carnegie Laboratory, reports the tumor as an epithelial carcinoma showing an active growth.

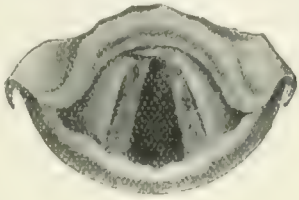
* Read before the American Laryngological Association, at Washington, May 13, 1901.

H. T. Brooks reports squamous celled carcinoma, so-called epithelioma. The stained preparations were further submitted to other competent observers who concurred in these opinions.

In view of these reports and the renewed activity of the growth it was felt that a crisis in the case had been reached, and that on our decision the entire future of the patient would depend.

Early in October, Dr. William T. Bull, of New York, saw Mr. T., and concurred in the opinions already obtained as to the nature of the growth and the necessity for an immediate restricted radical operation.

A preliminary tracheotomy was done on October 10, 1901, under cocaine anæsthesia. Nothing special occurred after this operation, the temperature not ranging above 100° F., and in a few days Mr. T. was up and about the house as usual. On October 22nd, the operation of thyreotomy was done by Dr. William T. Bull. The wood cut is a good representation of the laryngeal growth as it appeared three days before the operation.



NOTES OF OPERATION.

Heart, lungs, and kidneys normal. Head and shoulders in the Rose position. Ether followed by chloroform anæsthesia. After the cutaneous incision and the necessary dissection was made to expose the cricoid and thyreoid cartilages, the cricothyreoid membrane was divided in the median line.

The scissors were then used from below upward to split the thyreoid cartilage and expose the interior of the larynx, showing the growth in position as seen through the laryngeal mirror.

The growth, with the anterior half of the left vocal cord, was removed. A section frozen and examined showed squamous epithelioma extending into the cord and the thyreoarytænoid muscle. The rest of the cord and the thyreoarytænoid muscle and all the immediately surrounding tissues were removed, down to the internal surface of the left wing of the thyreoid cartilage, the surface of which was scraped and brushed with a solution of iodoform and compound tincture of benzoin. Very little bleeding occurred, and the interior of the larynx was packed with iodoform gauze, and the margins of the thyreoid cartilage brought together. A small opening was left in the lower part of the wound, through which the iodoform gauze protruded. A mild bronchitis, accompanied by a great deal of coughing, followed the operation, but otherwise the patient made an excellent recovery. The usual care was taken in giving nourishment, and sixteen ounces of broth was taken during the first twenty-four hours, and daily increased. On November 8th, the last of the packing was taken from the larynx, but small pieces had previously been removed. The external wound closed two days later.

On November 14th the tracheal tube was removed and laryngeal respiration effected without difficulty. A rubber cork had been worn for some hours each day for the previous week. On examination with the laryngeal mirror considerable granulation tissue could be seen beneath the left ventricular band and filling in the anterior commissure of the larynx. This tissue had the appearance of a laryngeal tumor, but it gradually subsided, leaving a mass of thickened tissue, which is still apparent.

The following report of the growth was received on October 30, 1901, from Dr. S. C. Wood, and confirmed by Dr. Prudden:

I enclose a slide from the tumor removed from the larynx of Mr. T. As you will see, the growth is an early epithelioma. The tumor growth is still superficial and has not extended deeply into the submucous connective tissue. The second fragment on the slide is sectioned from the portion of the thyreoarytænoid muscle removed by Dr. Bull during the second portion of the operation, and shows the thickening of the epithelial layers, and in one part near the edge of the incision, the submucous connective tissue in this fragment is slightly infiltrated with small round cells, but not with cells from the epithelioma. It is evident that the line of incision for removal of the tumor has been wide of the growth.

Immediately after tracheal tube was removed, Mr. T.'s appetite improved, and his weight (stripped) was 139½ pounds. He soon began to show an increase in weight, which eventually reached 173 pounds in comparison with 154 pounds—his maximum former weight. This great increase was possibly due in part to his leaving off smoking. In a few weeks, Mr. T. resumed his usual duties and business, and has been perfectly well ever since—in fact he has never been better. The voice was weak, coarse, and whispering, for some months, but it has gradually improved, and its present condition answers all the usual purposes of his life. He says that many of his friends think it an effort for him to speak, but it really is not, and he never has any discomfort.

A careful examination of the upper air tract has been made once a month since the operation, and beyond the changes which took place during the first two or three months subsequent to the operation, the tissues of the larynx have remained in their present condition.

The nasal and pharyngeal mucous membrane is now paler and healthier in appearance than when he was smoking. The laryngeal mucous membrane is also paler and less thickened than formerly. The left ventricular band is broader in every way and seems to overlap the right one during phonation, and it doubtless takes the place of the left cord in producing vocal sounds.

About seventeen months have now elapsed with no recurrence. Mr. T. is with us to day for ex-

amination by the members of this society and is in better health and stronger than he has ever been. I think we can reasonably hope that his improved physical state, the absence of any hereditary taint, and the cessation of smoking, will minimize the chances of a return of the growth. It is not often that a malignant disease is discovered early, but when it is all the evidence is now in favor of an immediate operation. If there is any doubt in the diagnosis of a growing laryngeal tumor, an exploratory thyrotomy should certainly be done. A general improvement in the statistics of all serious operations on the pharynx, larynx, and trachea may be expected from an improved technique in local anæsthesia.

7 EAST FIFTY-FIFTH STREET.

CHRONIC LYMPHATIC LEUCÆMIA COMPLICATED BY PNEUMONIA.

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The following case is of interest on account of its extreme chronicity, extending over four years, the unusual number of lymphocytes present in the blood, and the effect on the blood, lymph nodes and spleen of an intercurrent pneumonia.

The methods employed in the blood examinations were the Thoma Zeiss apparatus for estimating the number of corpuscles, Fleischl's hæmoglobinometer for estimating the hæmoglobin (these as in all leucæmic cases were unsatisfactory, as the color shades compare so poorly with the standard), and for morphological and staining qualities, dried spreads stained by Goldhoner's, Jenner's, Wright's, and Ehrlich's methods.

The history of the case was as follows:

W. B., a native of Poland, fifty years of age, married. His mother died at the age of eighty-eight years and his father died at sixty-six; causes of death unknown. He knows of no constitutional diseases in his family. He has had twelve children, nine of whom died in childhood of various diseases of childhood. Three children, all under ten years of age, are at present living and well.

The patient has always been a hard working man of temperate habits, he denies ever having had syphilis. For twenty years he has been subject to frequent attacks of bronchitis, but otherwise has been well and strong up to the time of the onset of the present symptoms.

The disease for which he presented himself to me for treatment dates back four years. At that time he noticed some "lumps in his groins," which have gradually increased in size ever since that time; about a year later he discovered some "lumps" in his abdomen and he began to cough more continuously than formerly; the latter he ascribed to a

continuation of his old bronchitis. At this time he began to lose weight, but did not feel particularly ill. About the middle of July, 1902, the loss in weight became more noticeable and he began to lose strength.

He first came under my observation at the Vanderbilt Clinic, September 20, 1902. He complained chiefly of his progressing weakness and the "lumps" which he felt in his abdomen. For six weeks his breathing had been somewhat embarrassed. He had had no pain, no fever, no oedema, no hæmorrhages, considered his eyesight very good. He was very constipated. *Physical examination:* Weight, 153 pounds (four years ago his weight was 214 pounds). General nutrition poor. Anæmic. Eye lids red and swollen, moderate exophthalmos of both eyes. The fundus oculi showed no retinitis, no hæmorrhages, no unusual pallor; there was, however, a slight sclerosis of the temporal vessels of both eyes. Pupils reacted normally to light and accommodation. No muscular palsies of the eyeball. The tongue was coated and moist, the breath foul, no hæmorrhages of the gums, the tonsils were rather large. The lymph nodes of the neck were barely palpable. The lymph nodes of the axillæ and inguinal region were markedly enlarged, mostly discreet; in the right axilla there was a mass the size of a goose egg. Skin somewhat harsh and rough. There was an old cicatrix of a superficial ulcer on the left shin; no evidences of subdermal hæmorrhages. Heart apex in fourth space three inches and three-quarters from the median line, regular and of moderate force, no murmurs. There was dullness in the second and third intercostal spaces, about one inch to the right of the sternum. The chest was generally superresonant, breathing somewhat labored and all over noisy with coarse mucous râles. Liver dullness extended from the fourth space to two inches below the costal arch; where the edge could be felt, quite firm and slightly nodular. The spleen occupied the whole of the left upper quadrant of the abdomen extending to a level one inch below the umbilicus, nearly to the median line and well back into the lumbar region, it was firm, inelastic, with a slightly roughened edge. The abdomen was soft, free from tenderness and easily palpable; throughout could be felt numerous masses ranging in size from an English walnut to a small sausage; these were slightly elastic to the touch, but could not be removed by active catharsis. *Urine*, sp. gr., 1019, no albumin, no sugar, no casts, no crystals, considerable indican. *Blood*—a hasty examination showed something over 600,000 leucocytes to the cubic millimetre, mostly of small lymphocytes, and a considerable degree of anæmia. *Sputum* contained no tubercle bacilli. Temperature, 98.8 F. Pulse, 88. Respiration, 28.

On October 7th the condition of the patient had not materially changed. The blood examination was as follows:

Hæmoglobin	75 per cent.
Red cells	4,720,000
Leucocytes	814,000
Lymphocytes, small	82.5 per cent.
large	15 per cent.
Polymorphonuclears	2 per cent.
Eosinophiles	0.5 per cent.

No myelocytes and no nucleated red cells were found. Ratio of leucocytes to red cells, 1:6.

An effort was made to induce the patient to enter the hospital, with the hope of subjecting him to a course of treatment with erysipelotoxines. This method of treatment has not, so far as I am aware, been tried, but in view of the influence of intercurrent erysipelas infections on the blood picture of leucæmia and the recognized effect of the erysipelotoxines on some forms of lymphosarcomata, it seems to me to deserve consideration. The patient, however, refused to enter the hospital or even to attend the clinic regularly, and I was obliged to content myself with the administration of various forms of iron and arsenic, none of which, so far as I could judge, influenced the course of his disease.

W. B. visited the clinic at varying intervals, and continued at his usual occupation of repairing shoes. On December 16th his blood showed 952,000 leucocytes with an unchanged preponderance of small lymphocytes. He had lost considerable strength and said he was obliged to sleep in a semi-upright position on account of the difficulty in breathing. The abdominal glands seemed a trifle larger than when he was first seen. On January 20, 1903, there was no noticeable change in his condition, his temperature was normal, and the blood examination was as follows:

Hæmoglobin	70 per cent.
Red cells.....	3,184,000
Leucocytes	1,168,000
Lymphocytes, small.....	89 per cent.
" large.....	10 per cent.
Polymorphonuclears	1 per cent.

No eosinophiles, no myelocytes and no nucleated red cells found. Ratio of leucocytes to red cells, 1:3.

January 24th.—He complained of pain in the right chest behind, increased by the respiratory movements. There was an area of dulness extending from the spine five inches to the right, and from the angle of the scapula to the base; over this area the breathing was diminished. The rest of the chest was noisy with sibilant and sonorous râles so loud as to obscure the heart sounds. Temperature, 103.5° F. Pulse, 124. Respiration, 42.

A diagnosis of pneumonia was made and he was advised to enter the hospital at once.

On the next day he presented himself at Roosevelt Hospital and was admitted to the service of Dr. James, to whose courtesy I am indebted for the privilege of observing him while there.

On January 25th the physical examination revealed a considerable change. The lung signs had not materially changed. The liver dulness extended from the fifth space to the costal border, but the edge could not be felt. The spleen was considerably diminished in size, now extending only three inches below the ribs in the mammary line. The lymph nodes seemed somewhat smaller. The sputum was mucopurulent and tinged with blood. January 27th, the signs in the lungs were unchanged. Temperature, 104° F. Pulse, 140.

Urine, sp. gr., 1022, no sugar, trace of albumin, few granular and hyaline casts.

Blood (examination by Dr. Lartigau):

Leucocytes	450,000
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Lymphocytes, small.....	98.7 per cent.
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" large and transitional..	0.6 per cent.
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Polymorphonuclears	0.7 per cent.
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No eosinophiles, myelocytes, or nucleated red cells. Moderate polychromatophilia.

Two days later, January 29th, our patient died as a result of his pneumonia. An autopsy was refused by his relations.

In terms of the unsatisfactory classification at present commonly in vogue the present case falls naturally into the group of the chronic lymphatic leucæmias. In view of the fact that less than a decade ago all cases of lymphatic leucæmia were considered acute, all terminating (as it was believed) within four months, and that the case under consideration falls to-day easily into the universally recognized class of chronic lymphatic leucæmias, we are impressed by the rapidity with which our clinical conceptions of these diseases are being changed. Even, however, with our modified ideas as to the duration of these cases, a course of upward of four years impresses one as decidedly unusual. While in myelogenous leucæmia it is not unusual to meet with cases of exceedingly chronic course, so also it is not uncommon to find a leucocyte count approaching a million; in lymphatic leucæmia, on the other hand, counts above half a million are extremely rare, and our case in this respect is also unusual, since at one time the number of leucocytes was more than one million, the increase being almost wholly due to multiplication of the lymphocytes.

The blood was purely of the lymphatic type; at no time was a myelocyte seen in numerous examinations made by two observers. Nucleated red cells were never found.

Since Eisenlohr, in 1878, reported his case of leucæmia in which the blood picture was much modified and the lymph nodes and spleen reduced in size by an intercurrent infection, about 35 cases, similarly complicated, have been reported by various observers. Diminution in the number of white cells and in the size of the spleen and lymph nodes has occurred in intercurrent infections of erysipelas, cholera, pulmonary phthisis, influenza, and other conditions of general sepsis. So marked has been this change in a number of cases as to render the original diagnosis doubtful, until the complication passed away and the original leucæmic picture returned in full colors.

In our case the complicating pneumonia was coincident with a marked reduction in the size of the lymphnodes, spleen and liver, and in a few days the number of leucocytes fell from 1,168,000 per c.mm. to 450,000 per c.mm. The polymorphonuclear cells were reduced in a greater ratio than the lymphocytes, and we cannot instance this as a case in which a polymorphonuclear leucocytosis has been substituted for the decrease in the other white cells.

as has been asserted by other observers. While, as pointed out by Weil, it is clear that intercurrent infections do not constantly cause a diminution in the number of leucocytes in cases of leucæmia, our case is an exception to the law which has attempted to deduce from his observations—namely, that in the chronic lymphatic leucæmias the effect of an intercurrent infection was to increase the number of leucocytes.

The presence of exophthalmos in our case suggested the possibility of the existence of chloroma; our case had many points in common with the cases of Osterwald, Birk and Arnold, as quoted by Dock; while Pinkus says that chloroma with the chronic lymphatic type of blood is extremely rare. In the much to be regretted absence of an autopsy further claims as to the existence of chloroma would be merely speculative.

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The Importance of Circumspection of Conduct to the Physician is well laid down by Dr. Johnson, in the following remarks, as reported by Boswell. While the individual instance given as a presumable act of folly, is one the foolishness of which will depend upon the point of view and the nature of the prejudices of the individual, the general principle adduced by Johnson in support of his opinion in the instance under consideration, remains sound. "A physician being mentioned who had lost his practice because his whimsically changing his religion had made people distrustful of him, I maintained that this was unreasonable, as religion is unconnected with medical skill. Johnson: 'Sir, it is not unreasonable; for when people see a man absurd in what they understand, they may conclude the same of him in what they do not understand. If a physician were to take to eating of horseflesh, nobody would employ him; though one may eat horseflesh and be a very skilful physician. If a man were educated in an absurd religion, his continuing to confess it would not hurt him, though his changing to it would.'"

AN IMPROVISED METHOD OF OPERATING FOR VARICOCELE.

By LUCIEN LOFTON, A.B., PH.G., M.D..

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EX-PRESIDENT SEABOARD MEDICAL ASSOCIATION OF VIRGINIA
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The classic operation for varicocele is resection of the spermatic veins by the open method, and stitching of the fragments together. This mode of attack has been quite successful, and is very popular with the twentieth century surgeon. In fact, this plan of treatment has long ago supplanted the ligating or strangling process held dear by our forefathers.

The point that I desire to set forth is that the needling application, when properly executed, is as prompt and efficacious as the operation devised by Bennett many years ago, but as is the case with many useful operations in surgery, some are discarded for no other reason than that they are not fashionable. The ligation method is truly a most satisfactory procedure, especially in the hands of the narrator, and the modifications I offer are as follows:

The testicular case is prepared for action in the usual surgical manner. The patient is permitted to assume the semirecumbent posture, when the scrotum is grasped with the left hand, the index finger and thumb separating the vas and the spermatic artery, i.e., placing them upon the anterior border of the testicle, while the pampiniform plexus is brought well up against the anterior and upper walls of the bag, and held there firmly. With an ordinary curved surgeon's needle, three inches in length, armed with a double strand of No. 2 fiddle string, the pouch is pierced at the seat of election and the mass transfixed; the needle being curved at an angle of forty-five degrees, penetrates the opposite inner wall of the scrotum, but does not perforate it. With the point of the left index finger, the needle is guided so as to slip along the inner wall of the bag, making a half circuit of the interior lining and over and above the transfixed veins, and is brought out at the original puncture and securely tied to the dangling ends of the external ligature. Caution must be observed in drawing the mass of veins well up against the inside anterior wall of the scrotum. This procedure, if it is thought necessary, may at the same sitting be duplicated from one to three times, at whatever points the surgeon's judgment may dictate. If you are sure you have separated the spermatic cord and artery from the general mass you may tie firmly at once; if not, gradual tightening is advised, as this will indicate the condition of affairs. The tying of the cord and artery

with the veins is a mistake that some good men have made, but, with ordinary precaution, it should not occur. However, when this is done, great pain radiating from the lumbar region to the testicle on the affected side, and even to the penis, immediately sets in, and if not remedied, atrophy of the testicle will follow.

You will observe by the foregoing that only one opening generally is made in the scrotum, and when secondary inflammation sets in the mass will be securely welded to the interior walls of the bag, bringing about a shortening always to be desired, as 95 per cent. of these cases are accompanied with elongated scrotal tissue.

Then, again, the fact that these veins have been securely fastened to the lining of the scrotal walls immediately anchors them, and makes it possible for a patient to continue at his business without a day's interruption. I have succeeded in operating in this way twelve times, without any one of my patients losing a day from his occupation; I have never had any severe inflammation or pain follow this procedure, or any elevation of temperature resulting therefrom.

The patient, of course, is enjoined to wear a well fitting suspensory for some weeks after the operation. Good results have invariably followed in each of the dozen cases. The bowels and kidneys are kept in a healthy condition during the time the suspensory is worn. Recovery follows upon an average of about twenty-five to thirty days, i.e., atrophy at this juncture is pronounced and the patient may be discharged cured. Complete atrophy generally follows in about six months.

Therapeutical Notes.

An Anodyne Syrup.—*Tribune médicale* gives the following as the formula of the syrup "Enfant-Jésus," so popular in France; a dessertspoonful contains:

R	Potassium bromide	{ of each. 5 centigrammes (3/4 grain);
	Sodium bromide	
	Ammonium bromide	
	Calcium bromide	
	Syrup of belladonna	. . . . . 1 gramme (15 minims);
	Syrup of orange-flower	. . . . . 5 grammes (75 minims).
M.	Three times a day.	

In Acute X Ray Burns.—Dr. Martin F. Engman (*Interstate Medical Journal*, July) has been called on to treat several x ray burns. All of them have been of the second degree or milder, with one exception, a burn of the back, with small points of deeper ulceration. Infection and ulceration were not factors to combat in their treatment, the indications being to stop the intolerable itching, assist repair, and to keep the surface aseptic, for which the following dressing seems to be wonderfully successful:

R	Boric acid	. . . . . 12 drachms;
	Zinc oxide	{ of each. 1 ounce;
	Starch	
	Bismuth subnitrate	{ of each. 1 ounce;
	Olive oil	
	Lime water	. . . . . 3 ounces;
	Lanolin	. . . . . 3 ounces;
	Rose water	. . . . . 2 drachms.

M.

The powder should be well rubbed up in a mortar and the lanolin added. The olive oil and lime water are well mixed, then this mixture slowly added to the powder and lanolin, constantly stirring. When this is thoroughly mixed the rose water is added and the whole beaten up in the mortar into a light creamy paste. If there is much pruritus, 1 per cent. or 2 per cent. of carbolic acid can be added to the whole.

In applying this creamy paste it should be spread on several thicknesses of absorbent gauze and laid over the surface, and a sheet of gutta-percha tissue placed over it to prevent evaporation. The cream paste is very cooling on account of the great percentage of water it contains, and acts almost as a lotion without the disagreeable effects.

The Treatment of Renal Lithiasis.—The *Journal médical de Bruxelles* for July 9th quotes the following prescription from the *Tribune médicale*:

R	Tincture of nux vomica	{ of each. 5 grammes (75 minims).
	Tincture of anise seed	
	Tincture of wormwood	
	Tincture of calumba	

M. From fifteen to twenty drops taken daily will combat the digestive atony which plays so important a rôle in oxaluric lithiasis.

For Cerebral Arteriosclerosis.—A revival of the seton is advocated by the *Journal des praticiens*, in the form of a strip of borated gauze, smeared with borated vaseline; unpleasant as the seton is, its use for four months or so is curative. As a purgative, the following is advised:

R	Scammony	. . . . . 40 centigrammes (6 grains);
	Jalap	{ of each. 15 centigrammes (2 1/4 grains)
	Gutta percha	

M. Make two powders, and take with an interval of twenty minutes.

The above should be repeated every ten or fifteen days. In the interval, the following pill is prescribed:

R	Aloes	{ of each. 5 centigrammes (3/4 grain);
	Euonymin	
	Podophyllin	. . . . . 1 centigramme (3/20 grain);
	Extract of hyoscyamus	{ of each. 5 milligrammes (3/40 grain);
	Extract of belladonna	
	Medicinal soap	. . . . . q. s.

M. Take one at night.

During twenty days of each month, potassium iodide is prescribed thus:

R	Potassium iodide	. . . . . 3 grammes (45 grains);
	Distilled water	. . . . . 300 grammes (10 ounces).

M. A table-spoonful, twice daily.

For the remaining ten days, theobromine is advised.

R	Theobromine	. . . . . 50 centigrammes (7 1/2 grains);
	Sodium benzoate	. . . . . 25 centigrammes (3 3/4 grains);
	Lithium carbonate	. . . . . 15 centigrammes (2 1/4 grains)

M. For one capsule; take two daily.

NEW YORK MEDICAL JOURNAL
AND
PHILADELPHIA MEDICAL JOURNAL.
CONSOLIDATED.

A Weekly Review of Medicine.

ESTABLISHED IN 1904.

FRANK P. FOSTER, M.D., KENNETH W. MILLICAN, M.R.C.S.,
Editor. Associate Editor.

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NEW YORK, SATURDAY, AUGUST 1, 1903.

NOT "DEAD IN THE CITY OF ITS BIRTH."

There are persons—very few, we are happy to be able to say—who would like to have the profession look upon the *Philadelphia Medical Journal* as "dead in the city of its birth." That that journal is not in any sense "dead," simply because of its own volition it has allied itself with the *New York Medical Journal*, there is overwhelming evidence. In the first place, we may adduce the comments of our contemporaries on the amalgamation; with hardly an exception they have expressed gratification at the consolidation and have wished the consolidated journal all the success that they concede its constituents deserve. For this we wish to thank them. As the *Chicago Medical Recorder* felicitously puts it, "What New York has joined together let no man in Philadelphia put asunder." The sentiment is one that meets with almost universal consent in Philadelphia and the part of the country justly considered as tributary to that city.

To speak metaphorically, every cell that enters into the composition of the twin entity that we mean when we speak of the consolidated journal is alive and full of metabolic energy. The journal is as heartily supported in the "Philadelphia territory" as it is in the New York territory. Since the consolidation the journal has secured ten times as many new subscribers in that territory as the discontinuance orders received. Moreover, not only have the advertisers who desire to reach the profession in that territory not discontinued their advertising,

but new contracts have been made and old contracts adjusted on a basis that in a financial way lends support to the publishers and does away with the notion that the *Philadelphia Medical Journal* is "dead in the city of its birth." It may interest our readers to know that the paid circulation of the consolidated journal exceeds 21,000 copies, and that one third of this circulation is in the "Philadelphia territory."

When the consolidation was effected there were turned over to the office of the consolidated journal more than forty original communications in manuscript. So far as was practicable every one of the authors of those articles was asked if he was willing to consider his manuscript as having been submitted to the editor of the consolidated journal, and there has not been one negative reply. Not only that, but many of the most influential writers have expressly wished us godspeed—and that fact, too, we desire to recognize with thanks. Indeed, the *Philadelphia Medical Journal* is not "dead in the city of its birth."

A PROSPECT OF UNITY IN THE STATE OF
NEW YORK.

Elsewhere in this issue we publish an abstract, by the author, of an important address by the president of the Medical Society of the State of New York, Dr. A. T. Bristow, of Brooklyn, delivered in June before the Associated Physicians of Long Island, at the dinner associated with a meeting held in Southampton. Whether correctly or not, the discord in the profession of the State of New York, whereby for twenty years past the organization of which Dr. Bristow is the president has been denied recognition by the American Medical Association, is ascribed by the majority of American physicians to the stubbornness of the State society. Dr. Bristow does much to dispel this idea.

Originating in a question of principle, he says, the strife has necessarily been bitter, for contentions over matters of sentiment are notoriously difficult and slow of adjustment. It is the old story of "Love rules the court, the camp, the plain." However, each side has striven for the right according to its own point of view. He concedes that the New York State Medical Association may not have realized or even known of the sentimental feeling

with which the Medical Society of the State of New York clung to its charter, now nearly a hundred years old, which sentiment he recognizes as "the most insuperable barrier to union." It will be remembered that in the recent conferences between the two State bodies the association demanded a new joint charter, the old society's charter being allowed to lapse—a proposition at which the society revolted. In view of his official position, the following utterances by Dr. Bristow are significant: "I do not believe that the association appreciated this feeling or perhaps foresaw it. On the other hand, it seems to me a perfectly natural and proper feeling on the part of the association that the members should wish for some legal recognition of the reunion; otherwise it would be necessary for them to abandon their organization and join the State society as individuals, something, in my opinion, that the State society will by no means expect."

Now that the American Medical Association has done away with all barriers to an harmonious New York State representation, and now that the president of the Medical Society of the State of New York has thus set forth his views, it does seem to us that there is a brighter prospect of harmony than was to be discerned some months ago, and we are glad to note that prospect.

BILIARY CIRRHOSIS.

Since the operative treatment of cirrhosis of the liver, advocated first by Talma, has been practised by many foreign as well as American surgeons, the subject has been brought more prominently before the profession. The operative treatment of this condition has not, however, added anything new in the way of ætiology, and it is in this connection that the writer has thought it well to call the attention of the profession, particularly the medical men, to neglected gallstone disease as a causative factor in producing biliary cirrhosis.

The ætiology of the hypertrophic forms of cirrhosis of the liver has never been clearly defined, although, in addition to alcohol, certain vague toxic products of faulty metabolism are assigned a prominent rôle in the causation. Infectious cirrhosis and that due to chronic congestion of the blood vessels are also mentioned. Another form, cirrhosis from chronic obstruction of the bile ducts, is only casually referred to by most clini-

cians, and yet it is frequently observed as a result of neglected gallstone disease.

The writer has observed in a number of cases that marked liver alteration has attended chronic duct obstruction by a stone in which careful bacteriological examination showed the absence of microorganisms. The appearance of the liver somewhat resembles that of the hypertrophic cirrhosis of Hanot. The liver is slightly enlarged, hard and elastic, icteric in appearance, and mottled with varying shades of color between green and yellow. The connective tissue overgrowth is apparent, giving a streaked appearance. A biliary cirrhosis of this type may be caused by the destructive action of obstructed bile upon the liver cells, with or without the presence of infection. In many cases the obstruction to the duct is not complete and jaundice does not occur, and yet at operation the liver is found to be diseased. In such instances the extension of the inflammation from the common to the hepatic ducts is responsible for the liver lesion. If bile, thrown back into the general circulation, reacts upon such organs as the kidney and heart, how much greater must be the injury to the liver, which, from its location, must bear the brunt of this attack. Biliary cirrhosis, as proved at the operating table, may result also from gall bladder cholelithiasis and gall bladder infectious diseases which have invaded the radicles of the hepatic ducts.

Clinically there are but few symptoms beyond those due to the duct, the gall bladder lesion, and the adhesions which have resulted from the inflammatory reaction. The increase in the size of the liver can rarely be appreciated by a physical examination, though by means of the latter the spleen will be found to be normal in size or nearly so. It will be remembered that in Hanot's cirrhosis the splenic enlargement is an early and valuable sign. The patient may complain of a feeling of fulness or even pain in the region of the liver, though this is never a prominent symptom. Jaundice as a symptom is unreliable and varies in a remarkable manner. Of recent years no symptom of a surgical lesion has received such close attention, and, as is well known, icterus has ceased to be of much diagnostic importance in disease of the biliary tracts.

The treatment of such biliary cirrhosis is that of the primary condition, removal of the obstruction and reestablishment of the patency of the common duct. It will be found by experience that in nearly all cases the best results are obtained by opening the common duct high up and instituting hepatic drainage. In other cases a fistulous communication between the gall bladder and bowel may suffice.

Finally, it must be acknowledged that an obstruction to the common duct by a stone, or its results, should never be permitted to exist for the time sufficient to cause destruction of the liver cells. The diagnosis of cholelithiasis having been made, with or without jaundice, an operation should be urgently advised and at once performed. The time has arrived when the sequelæ attendant upon neglected gallstone disease, such as chronic gastric affections, pancreatitis, and biliary cirrhosis, should be met with in but few cases, and the responsibility for these complications rests to a great extent with the medical men.

JOHN B. DEEVER.

THE PROBLEM OF THE WELL-TO-DO INEBRIATE.

I.

It very often happens that physicians have brought to them young men and even women who are victims of the drink or drug habit. These persons not rarely have most attractive personal and social qualities and good mental endowments. The men are often brilliant socially, effective and successful in their business, and may be fine, popular, lovable fellows in almost every way. Sometimes they are the only sons and have been the pet and pride and, perhaps, spoiled darlings of their homes. And yet, with everything to live for, with every possible moral inducement to live temperately, they go off on periodical debauches. These become more and more frequent until they alienate their friends, lose their position in business, and become the bane and sorrow of their families.

In order to help them after all moral inducements have failed, they are sent to a "cure," or they are sent abroad, or put on a sailing vessel for a trip around the world; but after a longer or shorter period of sobriety they return to their

habits. Then they are sent, perhaps, to inebriate homes or to sanitariums, and, as a last resort, they may be committed as insane to licensed institutions. In spite of all these measures the condition continues. They become more and more besotted, and finally become demented or die from some intercurrent delirium tremens or accident or in some form of paralysis.

Nothing is more sure than that the present measures for relief and rescue of this class are inadequate in the majority of cases.

Now, some of these victims of the alcohol habit are so degenerate and so morally depraved and so intellectually feeble that they are not worth curing. They cannot even be treated with any hope or any satisfaction. But there is a certain percentage who can be cured or enormously helped, and there is another percentage for whom cure is possible and should be tried, at least because humanity and the family demand it. It has been stated that there is at present no really effective or adequate way of saving this class. This statement is based on the fact that over and over again physicians have brought to them patients who have tried all the known measures for relief, and these known measures, when analyzed, are the following:

1. The victim—we will say now simply of the alcohol habit—can be sent to a cure. These cures vary in name, honesty, and the efficiency with which they are conducted, but their principle is the same—they help some who really desire to get well and cure some of this same class, but I feel sure that medical experience is that in the great majority of cases the patients relapse and nothing but temporary relief is obtained. I may add that there were a short time ago a multitude of these cures doing business in various parts of this country, and some with branches in Europe. These cures all make the same claims and practically employ the same kind of methods. The drug habit and the alcohol habit are conditions or tendencies, and not due to any disease which can be counteracted by antitoxines or vaccination or any specific.

2. The patient, if he is very violent from the effects of his indulgence, can be committed by a magistrate for sixty days to an inebriate asylum or a Christian Home. Here he receives some

treatment and becomes cleared up, but the respite is only temporary.

3. The friends can institute a civil proceeding and have the patient adjudged incapable of managing his own affairs and have his property put in the hands of a committee, and this committee can take charge of his money and, to some extent, of his person, but this method, of course, does not help to relieve the condition.

4. If the patient is very bad and gives evidence of mental disturbance, he can be committed as an insane person to a hospital for mental diseases. Here he gets rested and relieved of his acute symptoms, and when his mind is cleared up he demands his freedom and it is given him.

5. He can be persuaded to sign a voluntary commitment for a hundred days to an institution for the treatment of mental disorders.

6. He can be, perhaps, taken to a neighboring State, like Connecticut, and there can be committed as an inebriate for a period of one to three years. This is theoretically a satisfactory proceeding, but practically, if the patient is a resident of a neighboring State, he cannot easily be got into another, and, furthermore, there are no sanitariums for habitual inebriates in Connecticut where satisfactory and prolonged measures of treatment can be secured. Thus it turns out that cures are inefficient and temporary, sanitariums are inadequate and either they cannot hold the patient long enough or, if they do hold him, he gets liquor while there; furthermore, the proper care, the mental and educational restorative influences, that should be applied to such patients are not applied in such institutions and cannot be in any ordinary institution.

For the relief of the habit of drink—or if we wish to call it the disease of dipsomania—two things are absolutely necessary. One, that the patient be kept from opportunities of indulgence for a period of one to three years, and this is without any qualification or modification whatever. Next, that during this period he be under restraint. The time must be employed in increasing the healthfulness and vigor of the body, and in entertaining and instructing the mind and promoting by every possible means the strength of will and capacity for initiative and interest in the

actual doing of things, all of which expressions mean more or less the same thing.

Many forms of the drink habit are explosive in character, and the condition expresses itself very much as a chronic nervous or mental disorder having periodical outbursts, like that, for example, of epilepsy. If one takes a case of epilepsy and treats it for one year, and during that time there is no convulsive attack, we feel no assurance at all that the disease is cured. If we can control the seizures for two years, we feel considerable confidence, and if we can control the disease for three years, the patient is, in the vast majority of cases, practically well. This is the same with the drink disease and the drug habit. By means of isolation, education, and the employment of those measures for stimulating and developing the mind which are employed in the colonies for epileptics extraordinary successes are achieved, so we can believe that by similar methods very much better and greater results can be obtained for the alcoholic.

CHARLES E. DANA.

A CANCER JOURNAL.

We have received the first number of a journal, published "in zwanglosen Heften," entitled *Abhandlungen aus dem Gebiete der Krebsforschung und verwandten Gebieten*, edited by Dr. M. Schüller, of Berlin. The number contains forty-four pages of reading matter, constituting an article, by the editor, on The Parasitological Investigation of Cancer and the Recognition of the Cancer Parasites in the Living Subject.

THE DEPARTMENT OF AGRICULTURE'S EXPERIMENTS WITH FOOD PRESERVATIVES.

It is quite probable that the Bureau of Chemistry will meet with no difficulty in obtaining "subjects" for its next set of experiments, though they will relate to a drug and not to a preservative. The drug is tobacco. We learn that it will not be mixed with the food, but given after meals. The tobaccos of Cuba, Virginia, the Philippine Islands, and perhaps Connecticut and Canada will all be tried, and in every form. Cigars, cigarettes, pipes, cheroots, chibouks, narghilehs, and calumets will be smoked; snuff will be snuffed and used by "dipping;" and fine cut and plug will be chewed. It is supposed that every subject will be required to consume tobacco in all known ways.

The question of the special harmfulness of cigarettes will be thoroughly studied and "a deci-

sion rendered whether their alleged especially injurious properties are due to their construction or merely to the fact that the cigarette smoker usually smokes continuously and does not allow the system a chance to recuperate, as cigar and pipe smokers do."

THE MEDICAL MIRROR.

This monthly journal, established and edited for many years by the late Dr. Isaac Newton Love, is now edited by Dr. Ralcy Husted Bell, a gentleman well known in literary circles. The July number, the first to be brought out under the new management, is embellished with an excellent portrait of Dr. Love. The contents show that Dr. Bell comes nearer than was generally thought possible to preserving the peculiarities of the *Mirror*.

A CONSERVATIVE VIEW OF APPENDICULAR DISEASE.

Conservative indeed must we term certain views lately brought forward by Bäumler (*Therapie der Gegenwart*, 1903, 2, 3; *Zentralblatt für Chirurgie*, June 6th) as to the management of appendicular inflammation. He thinks that the great majority of cases end in recovery under conservative treatment. Only in case of gangrene or perforation with general peritonitis is immediate surgical intervention called for. Recognized abscesses are to be opened, but whether or not the appendix should be removed will depend on circumstances; in case of a relapse its removal should be undertaken. Morphine and atropine suffice for the conservative treatment, and there is hardly any danger of intestinal paralysis or intoxication from the use of opiates.

Obituary.

DONALD MAC LEAN, M. D.,
OF MICHIGAN.

The figure of Dr. Mac Lean, familiar at many a meeting of the American Medical Association, of which he was once the president, will be missed as few others would be. Although he was born and reared in Canada, and took his medical degree in Edinburgh, virtually his whole professional life was spent in Michigan. He served for a time as a surgeon in the Federal army, but it was not until 1870 that he made the definitive move of casting his lot with the American people. At that time he was made professor of surgery in the University of Michigan, and he straightway took rank among the leading surgeons of the country. As a contributor to the literature of the profession he was not conspicuous, but he wielded a vast personal influence by reason of his sterling worth, the clearness of his teaching, and his charm of character. He was universally liked and admired. He died at the age of sixty-four.

News Items.

Society Meetings for the Coming Week:

MONDAY, August 3d.—New York Academy of Sciences (Section in Biology); German Medical Society of the City of New York; Morrisania Medical Society, New York (private); Brooklyn Anatomical and Surgical Society (private); Corning, N. Y., Academy of Medicine; Utica, N. Y., Medical Library Association; St. Albans, Vt., Medical Association; Providence, R. I., Medical Association; Chicago Medical Society.

TUESDAY, August 4th.—Elmira, N. Y., Academy of Medicine; Ogdensburg, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Hudson, N. J., County Medical Society (Jersey City); Androscoggin, Me., County Medical Association (Lewiston); Medical Society of the University of Maryland (Baltimore).

WEDNESDAY, August 5th.—New York Academy of Medicine (Section in Public Health); Harlem Medical Association of the City of New York; New York Genito-urinary Society; Medical Society of the County of Richmond, N. Y. (New Brighton); Bridgeport, Conn., Medical Association.

THURSDAY, August 6th.—Brooklyn Surgical Society; Society of Physicians of the Village of Canandaigua, N. Y.; Atlanta Society of Medicine.

FRIDAY, August 7th.—Clinical Society of the New York Post-Graduate Medical School and Hospital; the Manhattan Clinical Society.

NEW YORK, CITY AND STATE

Woman Health Inspector in Buffalo.—Miss Georgia Wright, of 55 Vernon Street, has been appointed mercantile health inspector, at a salary of \$500 per year.

Buffalo's Water Supply.—George W. Fuller, of New York, has been named by the health commissioners of Buffalo as expert to investigate the sources of Buffalo's water supply. The common council has appropriated \$2,000 for the purpose.

New Mt. Sinai Hospital.—The Mt. Sinai Hospital Association has purchased the properties, Nos. 327, 329, and 331 Pine Street, covering an area of 60 by 160 feet, on which it intends to erect an addition to the dispensary now located at No. 236.

A New Board of Health Clinic.—A one story building is to be erected at 965 Sixth Avenue, and leased to the board of health for clinical purposes. It will be constructed of brick and terra cotta, at an estimated cost of \$10,000, and will comprise a drug store, x ray room, throat examination room and a waiting room.

Isolation Wards and Hospitals for Albany.—Mayor Gans has approved an ordinance authorizing, among other things, the construction of a reception pavilion, to provide for the care of persons affected with contagious diseases, and providing for the erection of a smallpox hospital, and authorizing the city to loan its credit in order to procure funds for the expense.

Buffalo Fresh Air Mission Hospital.—This institution is already well filled with sick children from Buffalo, there being some twenty-nine babies in the wards with children ranging from three to seven years of age. The management

will be glad to receive garments of every description for the children, coats, trousers, underwear, etc. The hospital buildings have been freshly repainted, and perfect accommodation is ready for all but contagious cases. Contributions of all kinds may be sent to the manager, Marc. W. Comstock, 39 Erie Street, Buffalo.

New Hospital in South Brooklyn.—The dispensary which has been operated in the basement of the Fifteenth Street Baptist Church in South Brooklyn has been outgrown by its clientèle, and steps are being taken by the managers and the staff of physicians to secure a suitable building in which to continue the work. The Children's Aid Society will help in collecting the necessary funds. The president of the organization formed to erect the new building is Dr. L. T. Jackman; secretary, George S. Francis, of 416 Fourteenth Street; and Francis J. Pender, treasurer.

Typhoid Fever in Ithaca.—Dr. George A. Soper, the expert appointed from the State board of health, has been investigating the subject of typhoid fever in Ithaca, since March last. He states that there are now in the city, nine cases, of which two are of recent origin, and five cases under suspicion. Cases have been attributed to an outbreak in a summer home above the intake of the city water supply from Six Mile Creek. Nine-tenths of the citizens of Ithaca wish to have an artesian water supply, but a powerful minority is backing what is considered to be an inadequate filtration plan.

An Enjoyable Open Air Concert for Patients was given by the orchestra of the Manhattan State Hospital, West, under the direction of Mr. George Kazamek, assisted by Miss Laura St. C. Howe, on Saturday afternoon, July 25, 1903, at 2.30 o'clock. Following is the interesting programme of the occasion: Star Spangled Banner; March, Prinz Carl, Bartl; Songs (*a*) The Ould Plaid Shawl, Haynes; (*b*) Japanese Dolls, Macy, Miss Laura St. C. Howe; Selection, Prince of Pilsen, Luders; Mandolin Solo, Selected, Miss Genevieve Hook; Barn Dance, In Old Alabama, Cruger; Songs (*a*) Vainka's Song, Whishaw; (*b*) The Slumber Boat, Gaynor, Miss Laura St. C. Howe; Cornet Solo, College Echoes, Sohst, Mr. John J. Miller; Intermezzo, Anona, Grey; Songs, (*a*) 'Tis All I Ask, Robyn; (*b*) A Dream so Fair, Metcalf, Miss Laura St. C. Howe; Alita (Wild Flower), Losey; Violin Solo, Selected, Mr. Wolf; March, Under One Flag, von Blon. Home, Sweet Home.

The Brooklyn Sneak Thief in Manhattan.—Last week we warned our readers against a sneak thief who was operating in Brooklyn. It seems that he had previously "worked" Manhattan, and he may return. Dr. Andrew H. Montgomery writes to us as follows:

"Permit me through your columns to warn the profession against a certain cadaverous individual who has been working among physicians on the upper west side lately. A young man (who gives a fictitious name and address—often-

est Edwards, of 2008 Eighth Avenue—about twenty-two years old, and five feet, six inches in height, slightly built, weight about 125 pounds, dark complexion, clean shaven, hollow cheeks, bad teeth, cicatrix from burn on dorsum of middle finger of left hand, poorly dressed in a dark gray suit, and dark gray felt hat, giving his occupation as an electrician) enters in an ostensibly choking condition, saying he has not been able to retain food for several days.

"He gives a very interesting story. His case has been diagnosed by professors X and Y in their clinics as 'choreic contraction of the pharynx and œsophagus.' He also has 'cystitis' and 'urethritis.' Dr. — gave him a prescription that relieved him, but unfortunately he has lost it, or doesn't know where he had it filled. But it contained Fowler's solution and quinine. He also exhibits a stomach tube. In the meantime, as he sits, the choking disappears. Unfortunately he has no money with him, but he will bring the fee with that sample of urine.

"Needless to say, the prescription he receives is never filled. His visit was followed in two cases, to my knowledge, by robberies on the day of his visit. He ascertains by telephone when the doctor is out. In my case a man of his description was seen issuing from my apartment with a bundle on the day of the theft.

"This man is easily identified from my description and story. He should be detained and the police department notified. He is wanted by Detective McManus, of the West One Hundredth Street Station."

The American Medical Association and the State of New York.—The following is an abstract of an address by Dr. A. T. Bristow, president of the State medical society, at the dinner of the Associated Physicians of Long Island, at Southampton, June 13, 1903: One of the most important things for the medical profession to-day is unity. Unfortunately, as you know, dissensions have existed in our ranks in this State for many years. Originating in a question of principle, the strife has been correspondingly bitter. Religious wars are notorious for the bitter ferocity with which they are waged, and men have never been so cruel to each other as in those historic conflicts which have been waged about an idea which had its roots in the moral nature of men. We wage war in behalf of a neighboring island, and victor and vanquished soon forget the brief animosities engendered, but it has taken decades to efface the recollections of the wars of religion. A battle for principle has many resemblances to the religious war. Such has been the battle of the code, and each side has striven for the right according to the different points of view of the contestants.

When I was elected president of the State society last winter the prospects of unity seemed remote. The question of the code was involved in much obscurity, and no one seemed to know just what its position was. Moreover, the State association insisted as a *sine qua non* to union that the State society should apply for a new charter together with the association. This seemed to me the most insuperable barrier to union, for the

State society prized its old charter, now nearly a hundred years old, and refused to do anything that would cause it to lapse. This was a question of sentiment to be sure, but let me remind you that many of the things that we hold most dear are matters of sentiment, that is to say, affairs of the heart rather than of the intellect. Patriotism is a sentiment, so is the affection of parents and children, and so is religion in so far as it concerns the heart rather than the head. Our most precious possessions are thus matters of sentiment, so it was not strange that the State society should be unwilling to allow its ancient charter to lapse. We are but a young country. We have few associations with a remote past, and those that we have we should cherish. I do not believe that the association appreciated this feeling or perhaps foresaw it. On the other hand, it seems to me a perfectly natural and proper feeling on the part of the association that the members should wish for some legal recognition of the reunion. Otherwise it would be necessary for them to abandon their organization and join the State society as individuals, something in my opinion that the State society will by no means expect. Inasmuch as both parties to the dispute of twenty years ago contended for principles as each saw them, neither side should now be penalized for the contention, which is a thing of the past, and feelings of mutual concession and toleration should prevail. We ought all to try to assist those who are striving for unity, and not be on the lookout for unreasonable objections to hinder. It has seemed to me that it might be possible to draw up an act which should preserve the old charter of the State society and add to it the desirable features of the charter of the association, and thus comply with the wishes of that body that some legal recognition should be taken of the new order of things. In this way neither organization would perish, but the two bodies would simply merge. Unification would in this manner be accomplished without loss of dignity on either side, and the reorganization would take place, as it ought, in a manner honorable to both the subscribing parties and with undue advantage to neither. If the matter of the charter can be arranged on these lines, as I am sure it can, then there is nothing whatever to keep us apart. The code question has been forever settled by the liberal and progressive spirit shown by the American Medical Association, and the profession of this State will be much to blame if it allows ancient prejudice or revived animosities to stand in the way of unity. It will not be long before this whole question will come up before the rank and file of both societies, and it will then become the duty of every man to see to it that nothing but questions of principle shall allow this breach in our ranks to continue. No such questions exist, however. Every one recognizes that. All men say that we ought to unite. Let me, then, urge on every one here that it is an individual duty which will soon confront us. If you wish unity you can have it, for it will be a question of the ballot. If you do not get it, do not blame the conference committees or the officers of the two societies. Blame yourselves, for there the responsibility must finally fall.

PHILADELPHIA AND PENNSYLVANIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

DISEASES.	Week end'g July 18.		Week end'g July 25.	
	CASES.	DEATHS.	CASES.	DEATHS.
Small pox	24	14	11	11
Diphtheria	21	6	41	5
Scarlet fever.....	42	1	54	2
Typhoid fever.....	77	19	65	11
Consumption	0	40	..	53
Cerebrospinal fever.....	1	1	..	2

This table shows an increase of twelve in the total of cases of contagious disease as compared with the preceding week.

Quarantine Raised.—The Island of Jamaica has raised the quarantine it had established against the city of Philadelphia, according to a report received from the American consul at Port Antonio.

Physicians to give Lectures on the Care of Children.—A number of physicians have volunteered to co-operate with the health authorities to give lectures on the care of children. They are to lecture among the poor under the auspices of the charitable institutions. The physicians are: H. C. Carpenter, W. S. Cornell, S. H. Doskowitz, Collin Foulkrod, Henry Golden, Wilmer Krusen, W. W. Naylor, Francis Patterson, and Robert N. Wilson.

The Dairy Commission and Summer Drinks.—Dr. B. H. Warren, Dairy and Food Commissioner, is making a war on vendors and manufacturers of adulterated and impure soda water syrups. For several days past he has had agents in disguise accumulating evidence against the manufacturers of the so-called syrups, and last Saturday had two arrested, who were held in \$1500 bail. It is contended that the sellers of cheap soda water do not use pure syrups, some of the concoctions being of a decidedly poisonous nature. Other arrests are to follow.

The Popularity of the New Frankford Hospital.—The neighbors to the Frankford Hospital are very enthusiastic over it and they are devising all kinds of affairs to raise money to equip the institution better. Last week the first of a series of outdoor charitable entertainments for the hospital's benefit was given and was a great success. On August 5th the residents in the vicinity of Pilling, Unity, Adams, and Wingohocking streets will give an open air festival. Two new nurses have been added to the hospital staff to assist Miss Theresa Miller, the chief; Miss Anna Miller will act in the capacity of day nurse and Miss MacElroy will do night duty.

The Old Emergency Hospital is to be converted from a seven bed structure to a modern hospital of 50 beds. John B. Stetson, the hat manufacturer, is going to erect a new structure which will be four stories high. It will be located on Fourth Street, below Montgomery Avenue. Although intended primarily for the employees of Mr. Stetson, it will be open to the public. The plans show the basement to be divided into a receiving ward, laboratory, laundry, trunk rooms, boiler room and morgue. The first floor has two waiting rooms, a pharmacy, surgical and medical dispensaries, an office and an orderly's room. Nurses and physicians' rooms and the private and general wards are to be on the second and third floors. There will be a large roof garden.

The Bureau of Health, by injecting a little energy into its staff of medical inspectors and vaccine physicians, is now able to say that smallpox is under control. "There is not the least doubt," said Dr. A. C. Abbott, chief of the bureau of health, "that we have the smallpox situation well in hand. This, however, is the first time since the present outbreak occurred, six weeks ago, that I have felt confident that the disease was under control. The falling off in new cases is due largely to the enormous number of persons that have been vaccinated by our medical staff. If we succeed in entirely eliminating the disease at this time there will be no smallpox epidemic in Philadelphia next winter. Of course, there may possibly be a case here and there, but nothing more, because the whole vaccination will be a barrier to the spread of the disease. I am very much encouraged by the work of the assistant medical inspectors and the vaccine physicians. The men who are engaged in this work have taken much interest in it, and they are entitled to a great deal of credit for the results accomplished. Take the Twenty-eighth Ward, where the disease prevailed. The corps of physicians have vaccinated 3700 men, women and children. At the filtration plants 1400 laborers were vaccinated through the co-operation of Mr. McNichol, the contractor."

CHICAGO AND ILLINOIS

Statement of Mortality for the Week Ended July 25th, compared with the preceding week, and with the corresponding week of 1902. Death rates computed on estimated mid-year populations of 1,885,000 for 1903, and of 1,820,000 for 1902:

	July 25, 1903.	July 18, 1903.	July 26, 1902.
Total deaths all causes	513	519	520
Acute intestinal diseases	108	79	108
Apoplexy	9	12	12
Bright's disease	29	26	26
Bronchitis	4	10	9
Consumption	57	53	52
Cancer	19	20	16
"Convulsions"	15	8	11
Diphtheria	9	9	4
Heart diseases	28	35	35
Measles	5	5	2
Nervous diseases	23	37	25
Pneumonia	36	39	24
Scarlet fever	5	4	6
Smallpox	1	0	0
Suicide	5	16	12
Stroke	2	6	1
Typhoid fever	5	4	6
Violence (other than suicide)	36	39	35
Whooping cough	7	5	8

Chicago Milk System.—Dr. Abt, chairman of the milk commission of the Children's Hospital Society, declares himself much pleased with the progress of the free milk distribution. Over 2000 bottles are delivered daily, surpassing the results first obtained in New York. The public is invited to inspect the central plant, it being hoped that interest in the charity will be thereby promoted.

"Epileptic" Staff of the Cook County Hospital.—A meeting of the "epileptic" staff of the county hospital was held at the hospital Saturday. An organization was perfected, officers being elected and plans outlined for increasing the effectiveness of the workings of the staff. The officers chosen are: President, Dr. John Dill Robertson; vice-president, Dr. F. E. Thornton; secretary, Dr. George Billig; treasurer, Dr. W. Harrison Hitt.

Pollution of Drinking Water.—The usual seasonal increase of typhoid fever is fully due, but there were only five deaths reported during the week; last July for the corresponding week there were ten. Notwithstanding these figures, the water pollution which follows every heavy rainfall at this season, and the increasing number of findings of the typhoid reaction in the laboratory, emphasize the necessity for the warning, already given, against the use of untreated hydrant water for drinking purposes by the young and those who have not previously had an attack of the fever.

Health Bureau Scored.—The civil service commission, in its report to Mayor Harrison on the health department, severely criticized the latter's methods. Among other things, complaints, it is said, instead of being entered in a book, were written on separate sheets, and those to which the bureau did not care to give attention, were destroyed. Undue influence was said to have been brought to bear in the suppression of undesired reports. In many cases, the inspectors are responsible for insanitary conditions, through negligence, or for some other reason. Often the methods of the department thwart effective work. It seems plain that between the disregard of sanitary regulations and the present policy of the department there is a direct relation, and a change of policy would be desirable. There is either unintelligent direction of the work, or records are purposely made in such a manner as to render it impossible to place responsibility. The report is a long one and seems to imply that corruption is at the bottom of the negligence of sanitary ordinances.

GENERAL.

Improvement in the Boston Floating Hospital.—Besides taking out mothers and babies by the day, as other floating institutions do, the Boston boat has isolation wards for use during trips, and permanent wards, that sick children may remain in until cured.

Atlanta Board of Health.—Captain George M. Hope has resigned as chief of the Atlanta Sanitary Commission, to the regret of the board of health, which has endorsed heartily a resolution introduced by Dr. E. H. Richardson, thanking him for his original and painstaking work.

Death Rate in Baltimore.—The deaths at Bayview numbered 7, hospitals 26, other institutions 19, inquests 31. The births reported numbered 106—white, 96; colored, 10; male, 64; female, 42. The new cases of infectious diseases reported were as follows: Diphtheria, 28; typhoid fever, 27; mumps, 6; chickenpox, 1; scarlet fever, 41; measles, 3; whooping cough, 2; consumption, 7.

Boston Board of Health.—The duties of the Boston health authorities have been of a varied description lately, comprising the detection of chemical poisons, and ptomaines in ice cream, the destruction of unsanitary sheds and dwellings, the condemnation of premises devoid of sewer connection, and the paving of mud alleys. The death rate is decreasing.

Injection of Salt Solution in Insolation.—It is reported that in two cases of heat stroke in Cincinnati, twelve ounces of blood were withdrawn, and replaced by an equal amount of physiological salt solution, with excellent results. Temperature was reduced, convulsions ceased, and the patients fell into refreshing sleep within an hour.

Fox River Valley Medical Association.—The quarterly meeting of this association was held in Menominee, Mich., under the auspices of the Menominee and Marinette association, on the 22d inst. Papers were read by Dr. Theinhaus, of Milwaukee, Dr. R. Hicks, of Menominee, and Dr. Rose, of Oshkosh.

The Opium Question.—The Philippine Commission, after much discussion and correspondence, has tabled the bills for the regulation of the opium traffic, and has appointed a special commission to visit the different countries of the Orient and investigate the various regulations regarding the disposal of the drug.

The Charity Hospital, New Orleans.—Dr. J. D. Bloom has resigned as house surgeon of the Charity Hospital, New Orleans, and Dr. J. M. Batchelor, first assistant, has been elected to fill his place. Dr. J. A. Danna, second assistant, has been promoted to Dr. Batchelor's position and Dr. S. W. Stafford has been elected second assistant.

Typhoid Fever in Kansas City.—The situation in Kansas City as to typhoid fever, is becoming serious. There are twenty cases in the city hospital, ten at St. Joseph's, five at the Women's and Children's, fourteen at the German hospital, and twenty at St. Margaret's, making a total of sixty-nine cases. Nearly all have been traced to the drinking of spring water.

New Hospital at Richmond.—On Monday last, the formal opening of the Memorial Hospital took place at Richmond, Va. The ceremonies were of a simple character, in view of the purpose for which the hospital was founded. The Old Dominion Hospital will now be handed over to the Medical College of Virginia, for use as lecture rooms.

Status of the Contract Surgeon.—The law officers of the war department have recently been called upon to decide a question as to the right of a contract surgeon to issue an order to an enlisted man. The case is that of Private Herbert P. Mark, of the hospital corps, who was convicted by court-martial in the Division of the Philippines of disobeying the orders of Contract Surgeon James C. Rutledge and sentenced to three years' imprisonment. The man has already served about a third of his sentence. His friends have called upon the war department for his release on the ground that there is no warrant of law for his imprisonment, and have called attention to repeated decisions that contract surgeons are not officers in the meaning of the law, but are civilians. The decisions in this case will be awaited with much interest by the army.

Requirements for Practice Throughout the United States.—We have received from Dr. J. A. Egan, secretary of the State Board of Health of Illinois, advance sheets of the valuable report of that board for 1903. The report gives in full the requirements of each State and Territory in the Union as to medical practitioners, and has thus condensed into small compass much that has heretofore required the handling of a large number of sources of information.

Hospital College of Medicine, Louisville.—Dr. Joseph M. Matthews, past President of the American Medical Association, and chairman of the Kentucky Board of Health, has resigned as a member of the faculty of medicine in Hospital College. This college is a department of Central University, and by agreeing to expend \$15,000 in improvements, has obtained the privilege of occupying its present site for twenty years longer.

Rhode Island Medical Society.—The ninety-second annual meeting of the Rhode Island Medical Society was held in Masonic Building, Providence, June 4, 1903. The president, Dr. George F. Keene, presided, and about 150 Fellows and guests were present. Dr. Halsey DeWolf, secretary, reported for the Trustees of the Caleb Fiske Fund: that the amount now at their disposal is \$1147.18. The prize of \$250 for the best essay upon the subject, Auto-intoxication as a Cause and Complication of Disease, was awarded to Dr. W. Louis Chapman, of Providence, R. I. The subject chosen for the prize essay of the coming year, 1903-4, is the Action of Light as a Therapeutic Agent, and the amount of the prize offered is \$250. It was voted to hold the next meeting in Newport, R. I. The following physicians were unanimously elected to Fellowship: Dr. Samuel Marsden Beale, Jr., of Howard; Dr. Edward Campbell, of Providence; Dr. William Francis Flanagan, of Providence; Dr. Herman Canfield Pitts, of Providence; Dr. Henry Bertram Potter, of Providence.

Municipal Tuberculosis Hospital for Washington.—Dr. George M. Sternberg, chairman of the subcommittee on the care and treatment of consumptives, has written the district commissioners as follows: "As you no doubt know, the mortality from this disease in the district is excessive, and no doubt there are many infected houses, especially among the colored population, which contributes a large annual quota to our mortality rate from this disease. It is perhaps impossible to prevent houses from becoming infected, especially among the poorer classes of the community, so long as patients with pulmonary tuberculosis are allowed to remain in their own homes. The removal of such cases to a properly located and well regulated hospital would be in the interests of the sick and would no doubt go far toward preventing the propagation of this infectious disease. I urge that you will make estimates for the construction of a hospital for consumptives upon the site selected for a municipal hospital. I am sure the leading members of the medical profession will agree with me that this is a most urgent matter, and that every effort should be made to induce Congress to make the necessary appropriation at its coming session."

Phith of Current Literature.

LANCET.

July 11, 1903.

1. The Causes, Prevalence, and Control of Pulmonary Tuberculosis (The Milroy Lectures),
By H. T. BULSTRODE.
2. The Scottish Medical Corporations and the Public Weal: How They Might Develop a Health Conscience,
By T. S. CLOUSTON.
3. Observations on Mastication,
By H. CAMPBELL.
4. The Treatment of Aneurysm by Subcutaneous Injection of Gelatin,
By G. RANKIN.
5. A Case of Richter's Hernia,
By J. W. FRASER.
6. The Relation of the Dental Profession to Public Health,
By A. NEWSHOLME.
7. A Case of Laryngeal Diphtheria; Tracheotomy; Death Six Weeks Later from Pressure of an Abscess Surrounding the Trachea,
By W. MAIR.
8. The Uses of Sodium Salicylate in the Treatment of Malarial Fever,
By A. D. E. KENNARD.
9. Small-Pox in the Fœtus,
By A. WARNER.
10. Retention of a Bullet in the Thigh for Two and a Half Years,
By S. F. GIBBS.
11. Arsenical Idiosyncrasy,
By J. PHILLIPS.

I. Tuberculosis.—Bulstrode, in the first of the Milroy lectures, discusses the causes of pulmonary tuberculosis besides the bacillus, its communicability, the prevalence of unrecognized cases, its relation to poverty, wealth, and alcoholism, the influence of insanity upon pulmonary tuberculosis, etc. Pulmonary tuberculosis is a diminishing disease, and may eventually become extinct. While there is no doubt that under certain conditions it is a communicable disease, yet its communicability is of a very low order—far lower than even typhoid fever, for instance. Under unwholesome circumstances and prolonged exposure pulmonary tuberculosis assumes a higher infective power than it manifests in the relatively wholesome conditions of a hospital for consumption. The prevalence of unrecognized tuberculosis can be appreciated from the fact that over fifty per cent. of all persons have tubercles at some time or other in their lives. It is uncertain as to how much direct influence alcoholism has on the development of tuberculosis. Alcoholics usually live in just the conditions conducive to the disease. Alcohol may be taken in the first instance with the view of keeping a defective economy up to the work which it has to perform, and when phthisis has been acquired by the loss of resistance due to depressing surroundings and the prevalence of the tubercle bacillus, alcohol is taken in increasing amounts to stimulate the flagging energies. In this sense alcohol is certainly a cause of tuberculosis. The incidence of pulmonary tuberculosis in insane asylums is very great.

3. Mastication.—Campbell states that the primary object of mastication is to break up the food so as (1) to facilitate its swallowing, and (2) to insure its intimate mixture with the digestive juices, not only within the mouth, but throughout the entire digestive tract. It promotes the flow of saliva and secures

a due insalivation of the food; it increases the quantity of alkaline saliva passing into the stomach; it stimulates the heart and circulation; and it finally influences the condition of the jaws and their appendages, by stimulating the local blood and lymph circulation. Mastication influences, not only the size, but the shape of the jaws (a) through its influence on the size of the tongue; (b) by the pressure of opposing teeth against one another; and (c) by the outward pull of the pterygoids. (*To be continued.*)

4. Gelatin Injection in Aneurysm.—Rankin reports four cases of aneurysm (three aortic, one abdominal) treated, with favorable results, by Lancereaux's method of gelatin injections. His experience tends to show: (1) That gelatin injections may, with proper precautions, be given subcutaneously with safety; (2) that they produce a marked and speedy decrease in all of the subjective and in some of the objective symptoms presented by internal aneurysms; (3) that this relief of symptoms is only explainable on the theory of a diminution in pressure effects from shrinkage in size of the aneurysmal sac; (4) that this diminution in size, accompanied with marked increase in resistancy of the tumor wall, was capable of physical demonstration in three of the cases treated; and (5) that the after histories of the patients, so far as they could be obtained, afforded evidence that probably the beneficial results were permanent.

6. Dentists and Public Health.—Newsholme discusses the subject of caries of the teeth, and the good effect its prevention or timely treatment would have on the public health. He summarizes the preventive measures to be taken as follows: 1. The teaching of hygiene should be made compulsory in the senior classes of all elementary schools and the hygiene of the mouth should form an important part of the subject. 2. The enforcement of daily cleansing of the teeth should be organized in all residential schools. 3. The medical profession should examine the teeth of all children attended by them, and inculcate on parents the necessity for regular cleaning and early attention to caries. 4. Every industrial and other school authority should employ a dentist to fill carious teeth, to correct dental irregularities, and to organize methods of dental hygiene. The expense will be more than recouped by the improved health of the children.

8. Sodium Salicylate in Malaria.—Kennard refers to the value of sodium salicylate in the treatment of malarial fever. It reduces the temperature as quickly as quinine, if not more so, but is of the greatest value in relieving the acute pains in the limbs suffered from in malaria. It acts quickly and is sometimes successful where quinine fails entirely, or where it cannot be tolerated. He reports three cases of malaria in which he used sodium salicylate in conjunction with quinine sulphate, with markedly good results.

9. Fœtal Smallpox.—Warner reports the case of a woman, aged thirty-five years, and four months pregnant, who contracted smallpox. The disease ran its usual course, and one month after she was

first taken ill, she miscarried, giving birth to two dead female fetuses. Both were covered by a well-marked eruption, distributed chiefly on the back, head, and neck. In another case of a woman three months pregnant, and taken ill with smallpox, miscarriage took place on the second day of the disease. There was no eruption on the fetus.

10. Retained Bullet.—Gibbs reports the case of a soldier who was shot in the thigh two years and a half previous to operation, the bullet being retained in the tissues. Operation, which was performed for lameness, showed the bullet to be encapsuled in a dense thick covering of fibrous tissue. Recovery was complete. The interesting points were: (1) The bullet, though encysted, still continued to irritate; (2) it caused obstruction to the femoral vein; and (3) this obstruction was due to the excessive quantity of inflammatory fibrous tissue formed by the foreign body and not to a change in position of the bullet by muscular action, owing to the fact that it was encysted.

11. Arsenical Idiosyncrasy.—Phillips reports the case of a woman, under treatment for abortion, who developed the most marked symptoms of arsenical poisoning (vomiting, purging, thirst, burning of the throat, epigastric pain, and collapse) following the administration of less than one-tenth of a grain of sodium arsenate, given in three separate doses (each of grain $\frac{1}{32}$) with an interval of some hours between each dose. The patient recovered under stimulation and morphine.

BRITISH MEDICAL JOURNAL.

July 11, 1903.

1. The Scottish Medical Corporations and the Public Weal: How They Might Develop a Health Conscience. By T. S. CLOUSTON.
2. An Account of Eight Cases of "Pressure-Pouch" of the Oesophagus Removed by Operation. By H. T. BUTLIN.
3. The Nature of the Symptoms in Appendicitis. By J. MACKENZIE.
4. On the Occurrence of Vomiting During Rectal Alimentation. By H. D. ROLLESTON and A. J. JEX-BLAKE.
5. A Case of Hernia of the Bladder Associated With An Inguinal Hernia, with Reference to Three Other Recent Cases. By H. J. CURTIS.
6. The Necessity of Shortening Large Nerves When Amputating. By W. G. SPENCER.
7. Brachial Neuralgia. By R. M. SIMON.
8. History of a Case of Cerebral Tumor Eight and a Half Years After Removal. By T. OLIVER.
9. The Value of Lumbar Puncture in General Practice. By H. RHODES.
10. A New Method of Counting the Corpuscles of the Blood. By W. M. STRONG and C. G. SELIGMAN.
11. The Iodoform Treatment of Tuberculous Disease. By M. G. GANNON.

2. Oesophageal "Pressure-Pouch."—Butlin reports eight cases of this supposedly rare affection, operated on by him within the last ten years. One case proved fatal from infection of the wound. All the others made perfect recoveries. The symptoms are similar in every case, and are as follows: (1)

Return of fragments of undigested food, not immediately after food has been taken, but many hours or even a day or two afterward. (2) Gurgling up of gas from the throat, particularly when pressure is made on the left side of the neck, low down. There may also be distinct bulging in this situation when food is taken, but this is not constant. (3) A bougie is arrested about nine inches from the teeth. If a curved metal instrument is used, the end can often be felt in the posterior triangle of the neck. Wasting and pressure-symptoms (cough) may also be present. Von Bergmann's operation was the one adopted, and the following suggestions are made. A bougie should be passed into the stomach from the mouth before operation, in order to determine whether there is a stricture of the oesophagus below the pouch. If this cannot be done, do it as soon as the pouch is exposed. If the pouch is of long standing and large, a soft tube should be passed from the mouth into the stomach and retained for so long as is necessary for feeding. If this is impossible the tube must be passed over a guide every time food is taken. The less the tissues below the pouch are disturbed the better. No attempt should be made to close the external wound; it should be drained by a soft drainage tube. On the other hand, it is very desirable to close the opening into the oesophagus. The operation appears to result in a speedy, complete, and permanent cure of the disease.

3. Appendicitis.—Mackenzie states that in appendicitis there is always peritonitis, and it is impossible to separate the symptoms of the two. The portion of the spinal cord which is in connection with the sympathetic nerves supplying the appendix and adjacent peritonæum, includes the origins of the eleventh and twelfth dorsal, and first and second lumbar nerves. The important nerves arising from this portion of the cord are sensory nerves to the abdomen and thigh, and the motor nerves to certain abdominal muscles, and to the bladder. When stimulation reaches a sensory nerve in any part of its course, the resultant pain is always felt in the region of the peripheral distribution of the sensory nerve. The disturbance of the nerve cells may be recognized not only by the presence of pain, but also by hyperæsthesia of the muscles. And it can be readily demonstrated that the tenderness is not due to the inflamed peritonæum. When the increased stimulus from the appendix affects the cells in the spinal centre of a motor nerve, contraction of the muscles supplied by that nerve appears—what the author calls the visceromuscular reflex. As long as the irritation lasts the muscles remain contracted: the ones particularly affected are the erector spinæ, the muscles of the anterior abdominal wall, and the psoas and iliacus, all on the right side. When the acute attack subsides the muscle fibres relax, with the exception of a few strands of muscle fibres here and there, giving a peculiar resemblance to a long narrow body in the abdomen. In most cases it is this strand of muscle that is felt by the examining surgeon. Occasionally the patient's complaints are limited to symptoms of bladder irritation, due to a stimulus reaching the bladder from the same section of the cord by way of the hypogastric plexus of the sympathetic. The symptoms may take

the form of frequent micturition or difficulty in urination.

4. Vomiting in Rectal Feeding.—Rolleston and Jex Blake state that in a number of patients with gastric ulcer treated by rectal enemata, several of them vomited up material from the stomach other than blood. Twenty-seven per cent. of the patients vomited on one or more occasions, although no food had been taken by mouth for thirty-six hours or more before vomiting occurred. No connection could be traced between the nature of the food given by rectum and the occurrence of vomiting. The vomited material was, as a rule, greenish or "bilious," acid, and contained bile. In some instances the vomiting was possibly due to oral infection; in others it was the reflex result of rectal injections.

6. Amputation and Shortening of Nerves.—Spencer reports six cases of amputation, going to show that when shortening of the large nerves at the stump is omitted, there is an indefinite delay in recovery. An artificial limb cannot be worn, there is continuous pain in the stump, and, finally, a secondary resection of the affected nerves has to be performed. Amputation is usually a last resource, the patient's condition is bad, and haste is essential; yet the time required for nerve shortening is indispensable.

7. Brachial Neuralgia.—Simon reports a severe case of brachial neuralgia, and states that he has met with half a dozen other cases, although there is little on the subject in the literature. From the chronicity, obstinacy, and non-intermittency of the pain, and from the local tenderness, it would seem that we had to deal, not with a neuralgic conditions, but with perineuritis and pressure on the nerve, either from the perineuritis, or from some inflammatory condition of the sheath of the muscles adjacent to the nerve trunks.

9. Lumbar Puncture.—Rhodes details what lumbar puncture may do (1) for the patient; (2) for the practitioner; and quotes illustrative cases. 1. For the patient: (a) Relief of pain, headache, etc.; (b) coma is diminished and consciousness may return after coma has been established through the increase of intracerebral pressure; (c) lumbar puncture may indicate the necessity or otherwise for operation; (d) it has been a definite aid toward recovery in cases of postbasilar meningitis.

2. For the practitioner: (a) It may correct or confirm a diagnosis; (b) by rendering less intense a coma from excessive intracranial pressure, it obviates the necessity for nasal feeding and other tedious and dangerous procedures. The operation is unattended with risk as long as it is carefully performed and rigid antisepsis ensured.

10. Blood Counting.—Strong and Seligmann's method of counting the white and red cells of the blood, consists, in principle, in diluting a measured quantity of blood with a measured quantity of a fixing solution, with which there is combined a suitable stain. After a few minutes, to allow of sufficient fixing and staining of the corpuscles, a measured drop of the mixture is allowed to evaporate to dryness on a slide, when a cover glass is applied over

the resultant film in the usual manner, acid-free benzene balsam being used as the mounting medium. The total number of corpuscles, red and white, is now counted, and the number contained in one c.c. of blood is easily calculated.

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

June 18, 1903

1. The Disappearance of Proteids in Hunger,
By F. BLUMENTHAL.
2. Further Experiments with Streptococci.
By H. ARONSON.
3. Kidney Death,
By L. CASPER.
4. Sixty Tendon Transplantations,
By E. A. REICHARD.
5. Disease of the Lateral Tracts and Spastic Spinal Paralysis.
By M. ROTHMANN.

2. Further Experiments with Streptococci.—Aronson concludes from his experiments that the various human streptococci cannot be differentiated, even by the finest biological methods. Even if the cultures remained unchanged after passage through an animal, it is not possible to determine the origin of a streptococcus culture by microscopical means, by the various culture methods, by agglutination, or by immunizing methods. Aronson concludes, therefore, that one cannot allege that such a typical disease as scarlatina is caused by the streptococcus, but we must believe that its severer complications are evoked by this germ. As far as the use of a practical antistreptococcus serum is concerned, this conclusion is a matter of indifference, but a specific scarlatinal serum does not exist.

4. Kidney Death.—Casper says that before the days of ureteral catheterization, death followed nephrectomy or nephrotomy frequently, because the wrong kidney was subjected to operation or because the remaining kidney was likewise diseased. With the help of modern methods, this fatality and mortality have been much diminished, as the instruments in use—he speaks of his own cystoscope—render an early and precise diagnosis of the functional activity of both kidneys possible, reducing the possibility of an error in operations and bringing about a much diminished mortality.

June 25, 1903

1. The Sanitary Fight Against the Plague,
By M. KUCHNER.
2. Experiments on the Transmission of Typhoid Fever by Butter,
By C. BRUCK.
3. Symbiosis of the Influenza Bacillus,
By M. NEISSER.
4. The Culture, Biology and Pathogeny of the Tubercle Bacillus of the Turtle,
By F. FRIEDMANN.
5. Inoculations of Apes with Soft Chancre.
By E. J. J. J. J.

2. Spread of Typhoid Fever by Butter.—From his experiments, Bruck concludes that many cases of typhoid fever which are difficult to trace, have their origin in butter, proving the numerous byways by which the disease can be propagated. The typhoid bacillus continues to live in butter. This finding illustrates the difficulty of prophylaxis in the matter of food sanitation, but Bruck emphasizes the necessity of thorough disinfection of the excreta from each typhoid patient

as it is through these that the disease germs are spread.

5. Inoculations of Soft Chancre.—Tomaszewski describes the results of his experiments. Pure cultures of streptococci inoculated upon an ape, evoke ulcers which have the clinical and microscopical characters of soft chancres. Cultures from these ulcers on blood agar caused typical soft chancres in man. The susceptibility of different species of apes varied, however, in the course of the experiments. Thus, a Java ape also acquired an ulcer by inoculation, but its course was abortive. Nicalli's experiments had the same result in showing a marked difference between the various species of ape as to the susceptibility to inoculation.

BERLINER KLINISCHE WOCHENSCHRIFT.

June 15, 1903.

1. *Etiology and Specific Treatment of Hay Fever* (*To be continued*). By PROFESSOR DUNBAR.
2. *Uric Acid Metabolism and Indican in Gout*, By J. GROSSMANN.
3. *Treatment of Prostatic Hypertrophy*, By L. CASPER.
4. *Benign and Malignant Growths in Cold-Blooded Animals*, By L. PICK AND H. POLI.
5. *Treatment of Pulmonary Tuberculosis*, By L. DANIELIUS AND T. SOMMERFELD.

3. Treatment of Prostatic Hypertrophy.—Casper divides his cases into two groups—those who can entirely or almost entirely empty the bladder, and those who cannot do so. The latter class is the most numerous. A great many patients do well with catheterization, but the important thing is to empty the bladder slowly and not completely at each catheterization, and this is especially to be considered when there is no cystitis. Vasectomy and castration, in Casper's hands, have not yielded good results, and Battini's operation is not a certain cure, about fifty per cent. of the patients submitted to this operation being improved. Electrolysis of the prostate, puncture of the bladder, and suprapubic cystotomy, he no longer practises. Patients with small bladders do not tolerate catheterization well. In these cases, Casper inserts a permanent catheter, which remains in place for months. The urethritis it causes disappears in a few weeks. The end of the catheter has a cork, or stopper, which can be removed when desired. Twice daily, the patient irrigates his bladder, once with a solution of silver (1 — 1,000 to 1 — 4,000) and the other time with a solution of some mercurial salt (1 — 5,000), for the purposes of keeping the bladder clean and of preventing incrustation of the catheter.

ZENTRALBLATT FUER GYNAEKOLOGIE.

June 27, 1903.

1. *Icterus of Pregnancy*, By L. BRAUER.
2. *Ovarian Teratoma Composed Almost Exclusively of Thyroid Tissue*, By A. GLOCKNER.
3. *A New Perforator*, By E. TRIDONDANI.
4. *Which is the Best Mask for Ether Narcosis?* By BEAUCAMP.

1. Icterus of Pregnancy.—In reporting several cases of severe jaundice arising during pregnancy and disappearing after confinement, Brauer

concludes that this condition is beyond doubt due to the still undecided group of diseases which are dependent upon catabolic changes which take place in pregnancy. The formation of placental toxines and of syncytiolysin (Veit), change in the embryo, and eclampsia all belong to this group of pathological conditions. Other conditions which may have an allied origin, are the hæmoglobinuria of pregnancy, the "kidney of pregnancy," acute yellow atrophy of the liver, and possibly osteomalacia and the jaundice of menstruation.

REVISTA DE MEDICINA Y CIRUGIA DE LA HABANA

May 10, 1903.

1. *Grave Complications of Suppurative Otitis*, By CARLOS E. FINLAY.

1. Suppurative Otitis.—Finlay presents a description of the complications of suppurative otitis which is in somewhat alarming contrast to the attitude of many practitioners toward this by no means banal condition. He calls into question, at the outset, the idea that an inflammation of any intensity could remain localized in the middle ear; from the fact that the mucous membrane lining its cavity is continuous with that of the mastoid cells; hence he holds it erroneous to speak of an extension, or the fear of an extension of inflammation from the tympanic cavity to the mastoid cells, as it has been demonstrated that in acute suppurative otitis, the mastoid cells share in the general inflammation of the mucous membrane lining the middle ear. The author has, with relative frequency, found inflammation, and even pus, in the mastoid cells in acute suppurative otitis. He presents a formidable array of complications which may follow acute and chronic suppurative otitis media as follows: Pachymeningitis externa, extradural abscess, subdural abscess, cerebral abscess, ulceration of the cerebrum, thrombophlebitis of a sinus, toxæmia, pyæmia, and septicæmia. Of these, it has fallen to his lot to treat two cases of cerebral abscess, two of thrombophlebitis of the lateral sinus and one of toxæmia; all of which followed a chronic suppurative otitis. His experience has led him to the belief that when an otitis does not yield to adequate local medication within about a month, a mastoidectomy should be performed; this measure being, of course, at once resorted to if pain and tumefaction appear over the mastoid process.

RIFORMA MEDICA.

June 3, 1903.

1. *A Family Type of Arsenical Paralysis*, By LUIGI FERRANNINI.
2. *Contribution to the Study of the Stigmules*, By LORENZO VERMY.
3. *On the Physiology of the Orbital Lobe*, By LUIGI FERRANNINI (*Concluded*).
4. *Contribution to the Surgery of the Central Nervous System*, By GUIDO BENDANDI (*Concluded*).

1. Family Type of Arsenical Paralysis.—Ferrannini observed arsenical paralysis giving the same symptoms in three members of the same family. The cause of the poisoning was arsenic which was contained in some flour which all the patients had

eaten. All three were seized with symptoms of acute arsenic poisoning, and within a fortnight developed the same symptoms of arsenical paralysis. They were troubled with anæsthesia and paræsthesias in the extremities, inability to work and to walk. The gait was unsteady and they were unable to stand with the feet close together. Their walk was slow, rigid, and irregular. There was left facial paresis, and abolition of the tendon reflexes, but no affection of the sensory nerves and no paresis of the upper extremities, save that in one of the three patients there was slight paresis of the fingers and thumb. The peculiar feature of these cases was the fact that the paralysis was identical in all three, possibly owing to hereditary peculiarities.

2. The Stimulines.—Verney reviews the work of Metchnikoff and his pupils, who named the substances supposed to stimulate the phagocytes to destroy germs, "stimulines." Curative serums, according to Metchnikoff, can stimulate the organism actively to resist bacteria, and therefore the distinction made by Ehrlich between active and passive immunization is needless. Ferrannini set out to prove whether there were stimulines present in the serum of guinea pigs immunized against typhoid fever or whether the serum in question acted directly upon the bacteria of typhoid. The latter seems to be the case. According to the side-chain theory of immunity, it is possible that immunizing serums may contain substances which neutralize the toxins of bacteria without killing or destroying the latter.

POLICLINICO.

(Sezione Chirurgica. May, 1903.)

1. Nephrectomy and Unilateral Ureteral Stenosis,
By PAOLO FIORI (*Continued*).
2. Hæmostasis, Resection, and Suture of the Liver,
By G. MASNATA.
3. Incised and Punctured Wound of the Base of the Right
Ventricle of the Heart, By C. MANSINI-JANARI.

2. Technics of Liver Operations.—Masnata, in his second communication, presents the experimental results which he obtained in liver operations with his method of hæmostasis by rapid forcipressure. He recommends the use of a special forceps-sound in the liver, for resections and for the introduction of sutures. This instrument is a highly curved forceps with thin pointed, blunt blades, the extremity of one of these blades bearing an eye for a ligature. Special hæmostatic forceps with flat, fenestrated blades are recommended for the clamping of the wounded vessels during the operation. The needles used by the author are of the Hagedorn type, with flat sides, full curved, with dull points, and are carried in a needle holder with a small beak. A series of needles mounted on handles, with flat sides and blunt points, have also been devised by the author for liver operations. The technics of operating on the liver with the aid of the forceps-sound is minutely described, but is unintelligible without the author's illustrations. The new instrument, however, is so constructed that it compresses a large number of vessels at once, as it passes through an area of liver tissue. By the aid of the thread which the forceps bears these vessels are then ligated and cut. In this manner the desired

piece of liver tissue can be removed without much bleeding.

3. Wound of the Heart.—Mansini-Janari reports a case of incised and punctured wound of the base of the right cardiac ventricle in a man aged twenty years, who was brought into the hospital apparently dead. An immediate operation was performed, the heart exposed by raising a quadrilateral flap involving the resection of parts of the third, fourth, and fifth rib cartilages and reflecting the same upon the sternum, on the left side. A wound was found in the upper part of the pericardium, and this sac was opened with a long incision. The heart had ceased beating, and a flood of blood covered it, so as to mask everything. The operator introduced his hand beneath the heart and compressed it repeatedly, when suddenly the hæmorrhage ceased and the heart began to contract in his hand. A wound about one centimetre long was then found in the base of the right ventricle. Holding the heart in the hollow of the left hand and approximating the edges of the wound with two fingers of that hand, the operator with his right hand sutured the wound with silk. The first suture broke, and a jet of blood issued from the wound, but the second suture and the others held. The heart continued to beat, the pericardium was closed, and the external wound sutured, leaving passages for drains. The whole operation lasted about forty minutes, and but a very small amount of chloroform was used. The patient lived about seventy-four hours and his general condition was fair until the last, except for a rapid and feeble pulse. This is the fifty-first case on record of suture of the heart or pericardium, or both, the total number of recoveries up to date being nineteen. Of these, six occurred in the hospitals of Rome.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

May 31, 1903.

1. Some Scientific Reasons for the Curative Value of Alcohol,
By STEFANO MIRCOLI and ATTILIO GERVINO.
2. The Diagnosis of Movable Kidneys,
By GERMANO CORSINI.
3. Clinical Results with the Use of Catgut Prepared by a
Very Simple Process, By CARLO MARIANI.
4. Contribution to the Study of Symphysiotomy,
By L. L. L. L.
5. Hypodermoclysis in General Surgical Infections,
By GIOVANNI TOMASELLI.
6. Laryngospasm and Pseudomeningitis Due to Ascaris
Lumbricoides, By GIUSTINO PIERANTONI.

1. Action of Alcohol.—Mircoli and Gervino say that we ought to apologize to alcohol for the manner in which it has been treated at the temperance congresses. They review the recent work of Duclaux, Atwater, and others, showing the value of alcohol both as a food and as a stimulant, and dwell particularly on the value of alcohol in small doses as an antiseptic and antitoxic. Alcohol acts as an antitoxic probably both by modifying the molecular constitution of the toxins, especially the toxalbumins, and also by stimulating the organism to secrete antitoxines (Clemm, Buchner). Alcohol was used by Buchner in local tuberculosis, and he found that it produced such favorable effects, that he believed that the tissues secreted an

alexine as the result of the stimulus produced by alcohol.

Mircoli, showed that the serum of alcoholics (who were not affected with alcoholic symptoms at the time) was able to neutralize tuberculin poisoning much more readily than the serum of a strong, healthy man. The statistics of the Genoa clinic show that tuberculosis is not more frequent among drinkers than among abstainers, and also that alcohol increases the resistance of patients against tuberculosis. Gervino found that rabbits fed upon fodder containing alcohol in increasing doses showed more resistance to tuberculosis than normal rabbits. The serum of rabbits fed on alcohol mixed with their food was found to possess, not only hæmolytic powers, but autohæmolytic properties, becoming strongly reddish, tinged with the dissolved hæmoglobin. The urine of these rabbits contained urobilin in excess. This was not due to the action of the alcohol *per se* upon the blood, for the injection of alcohol causes the blood to coagulate, while the ingestion of alcohol diminishes coagulation. In order to find out whether the addition of an emulsion of cerebral tissues, when added to alcohol injected, would diminish the toxic properties of the latter, the author injected mixtures of alcohol and cerebral tissue into rabbits. He found that by this means the animal could be made to tolerate much larger doses of alcohol, but when these were exceeded that hæmolysis and hæmoglobinuria appeared. Thus, alcohol was able to dissolve the hæmoglobin of the red corpuscles and to produce hæmoglobinuria as well as hæmoglobinæmia.

4. Method of Preparing Catgut.—Carlo Mariani has studied the clinical results of Claudius's method of preparing catgut. This consists of winding the catgut without any previous preparation upon a glass spool, and immersing it directly into a solution of iodine and potassium iodide (iodine, 1; potassium iodide, 1; water, 100). After eight days the catgut is ready for use and may be kept in the same solution. When wanted for use, this catgut should be washed in 2 per cent. carbolic acid solution or in an indifferent aseptic fluid, in order to remove the excess of iodine. It assumes a dark color like tarred thread, and is not only aseptic and antiseptic but corresponds to all the requirements of a surgical ligature material. It is absorbed less rapidly than other catgut, and takes about sixteen days to disappear. The amount of iodine is so small that Mariani thinks it unnecessary to wash the catgut before using. If it is left in water for 24 hours, it loses all its iodine and the accompanying advantages of this antiseptic. Mariani has used this catgut with marked success in all kinds of operation, his experience to date numbering thirty cases, in which Claudius's method was used. He recommends the use of this catgut in all operative work.

6. Nervous Disturbances due to Roundworms.—Pierantoni reports a case of laryngospasm and one of pseudomeningitis in children with ascarides, and concludes from that ascarides are able to produce acute nervous symptoms in children, without reference to traumatism or to psychical causes.

ROUSSKY VRATCH.

May 24, 1903

1. Cryoscopy of the Urine in Children. Cryoscopy in Nephritis and After the Use of Meat or Milk Diet, By E. J. HINDESS.
2. On the Effect of Methylatropine Bromide Upon the Eye, By V. P. VITZINSKY.
3. The Pathological Anatomy of Neuropathic Spondylitis, By G. J. TROSHINE (*Concluded*).
4. On Paratyphoid, By V. I. BIELYAEFF (*Concluded*).
5. Some Data on the Changes in the Kidneys After Decapsulation, By B. F. BONTCH-OSMOLOFFSKI.
6. On the Parasitology of Mixed Types of Malaria, By S. A. MARKS (*Concluded*).
7. On the Treatment of Lateral Deformities of the Lower Limbs (Genu Valgum and Genu Varum) by Wolff's Method of Bandaging by Stages, By A. S. SEMIONOFF (*Concluded*).

1. Cryoscopy of the Urine in Children.—Hindess concludes, from a study of the freezing-point of urine in children in health and in nephritis under the influence of meat and milk diet, that the data of cryoscopy do not represent constant magnitudes, but vary without strict correspondence to certain states of the organism and cannot, therefore, be used as criteria of the activity of the kidney. The inconstancy of the results lies partly in the subjectiveness of determination of the freezing-point, no two observers obtaining exactly the same figure. Cryoscopy of the urine, cannot as yet serve as a basis for a diagnosis of nephritis, much less for determining the form of renal disease or the kind of diet to be employed in its treatment. Cryoscopy of the blood has proved more useful in surgery, for the freezing-point of blood is quite constant (-0.56°C .) The changes in the freezing-point of blood may be used to determine the sufficiency of the compensating power of a healthy kidney in the presence of one that is diseased. If the freezing-point of blood remains normal, the healthy kidney fully compensates for the diseased one, and keeps up the normal composition of the blood. If the opposite kidney is not able to compensate functionally the work of the one which is surgically affected, the freezing-point of blood will be altered. On this therefore depends the question of surgical intervention.

2. Methylatropine Bromide in the Eye.—Vitzinsky, in a preliminary communication, reports a series of experiments with a new pupil-dilator, methylatropine bromide. He states that it acts less abruptly and permanently than atropine on the pupil and on accommodation. As regards its curative action and the relief of pain in iritis, further observations are needed.

3. Neuropathic Spondylitis.—Troshine concludes a long essay on the pathology of chronic ankylosing inflammation of the spine as follows: (1) In spondylitis deformans there are signs common to all the forms and features distinctive of each type. (2) The common features of all the types of spondylitis are phenomena of functional adaptability of the tissues, without any inflammatory process. The special features of each type depend upon the initial cause of the spondylitis. (3) In the

Strümpell-Marie type there are probably changes in the spinal cord identical with those found in arthritis deformans. This type is, then, a special form of arthritis deformans and should be classed as a trophoneurosis. (4) The type of Bechterieff belongs to the group of neuropathic curvatures of the spine. The changes in these forms are very similar to those found in arthritis deformans, and the immediate and principal cause of neuropathic spinal curvatures is a trophic change in the bony tissue.

4. Paratyphoid.—Bielyaëff concludes from an experimental study of paratyphoid that: (1) Cases of paratyphoid produced by the paratyphoid bacillus may be surely distinguished from typhoid fever. The paratyphoid bacillus, in its behavior in agglutinating, differs sharply from other members of the group of "coli-typhoid" germs, and particularly from those on the bacilli enteritidis. The various sub-types of paratyphoid bacillus may also be distinguished from one another by agglutination. (2) As the paratyphoid bacilli include a number of types in regard to agglutination, it is necessary, in serum diagnosis, to test simultaneously the action of serum upon the typhoid bacillus, and also upon the paratyphoid bacilli obtained from the patients themselves, or from other patients. While the bacteriological diagnosis of a case of typhoid is always desirable, in paratyphoid it is necessary. It is desirable to adopt a method of obtaining rapidly and easily pure cultures of typhoid or paratyphoid bacilli from the patient. Cultures of typhoid and paratyphoid bacilli can be obtained from the feces, urine, blood, veins, and from the rose-spots. In the beginning of the disease we must resort to the isolation of the bacilli from the feces, while the other methods are available only during the second week. The best method of growing these cultures, however, is from the blood, especially from the blood of the veins.

5. Renal Decapsulation.—Bontch-Osmolovsky has investigated the changes which arise in the kidneys of rabbits after removing the fibrous capsule. These experiments were performed with a view of confirming the theory of Edebohls, Rovsing, and others, to the effect that the removal of the capsule would create a new blood supply to the renal parenchyma, and would thereby tend to degenerate renal tissues affected with nephritis. In spite of the fact that the animals with decapsulated kidneys survived the operation only a short time, the author published his incomplete results, because he noticed very unfavorable effects on the parenchyma of the kidney after decapsulation. He believes further experiments on animals necessary before decapsulation should be employed in nephritis in man. In his own series of animals the capsules were removed through either the abdominal or the lumbar incisions. Six days after the removal of the capsule the minute portions of fibrous capsule that remained showed a marked proliferation of the connective tissue into the parenchyma and around the urinary canals. After twelve days the entire surface over which the capsule had been removed was the seat of a marked connective tissue growth which did not penetrate very deeply into

the interior of the kidney. The tissue at the periphery of the kidney evidently undergoes marked changes of atrophy and connective tissue-formation, but no new vessels are formed.

7. Genu Varum and Genu Valgum.—Semionoff calls attention to the efficiency of the method of treatment suggested by J. Wolff for lateral deformities of the legs. That the normal architecture of bones corresponds to the static laws of stress, was first hinted by Herman Meyer and proved conclusively by Wolff. Whenever the static conditions of normal limbs are disturbed, the development of these architectural features of bones becomes abnormal. To restore distorted limbs in young children to normal it is not sufficient to resect or break the bones and set them right, but the transformation of the architecture of the bone must be secured by gradually reducing the static conditions of that bone to normal. This may be best attained by the straightening of the limb after a plaster of Paris bandage has been applied, allowing the bandage to remain for a while in the partly straightened position, then removing a wedged shaped piece of the bandage after three or four days, at the knee, then straightening the limb again still further, and supplying the gap in the bandage by means of fresh plaster bandage. The limb is thus straightened out by stages, the pain subsiding between each reduction. When the limb is straight, metal hinges are fastened into the plaster of Paris on each side of the knee, and the plaster is cut out between these hinges, chiefly behind the knee. The patient may then walk and bend his knee, without displacing the straightened limb.

Semionoff reports 36 cases thus treated and finds that this method gives straight limbs in many cases, and is more successful in genu varum than in genu valgum, which is usually rachitic in origin. If the distance between the internal condyles of the knees exceeds 25 cms, it is difficult to obtain a good result with Wolff's method. Relapses occur after the use of Wolff's hinge-splint.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

July 11, 1903.

1. The Status of the Section on Ophthalmology: Chairman's Address, By JOHN E. WEEKS.
2. The Value of Enterostomy in Selected Cases of Peritonitis, By F. B. LUND.
3. Prolonged Intubation Tubes, with a Method Leading to Their Extraction. By BURT RUSSELL SHURLY.
4. Continued Fever: Neither Malarial nor Typhoid, By T. J. HAPPEL.
5. Southern Fevers, By WILLIAM KRAUSS.
6. A Clinical Observation of Ninety Cases of Typhoid Fever: With Four Deaths, with Special Reference to Therapeutic Fasting, By R. M. HARBIN.
7. Typhoid Fever in Colorado: A Report of 529 Cases, By J. N. HALL and C. E. COOPER.
8. Weakness and Dilatation of the Heart in Chronic Nutritional Disease, By G. W. McCASKEY.
9. Papilloma of the Sole, By DOUGLASS W. MONTGOMERY.
10. The Management of Fever in General, By AUGUSTUS A. ESHNER.
11. Early Eye Symptoms in a Case of Myasthenia Gravis, By CASSIUS D. WESTCOTT and BROWN PUSEY.

4. **Continued Fever.**—Happel asserts that in the South there is a form of fever, so far not recognized in the text books, which, while resembling in some respects typhoid and in other respects malaria, is surely neither typhoid nor malaria. He bases the negative diagnosis on the absence of the Widal reaction and on the fact that the plasmodium of malaria could not in any case be demonstrated in the patient's blood. Although he has observed, all told, about one hundred cases of this "new" disease he has, so far, been unable to get an autopsy as all his patients have recovered. The histories of a few cases are very imperfectly reported.

6. **Therapeutic Fasting in Typhoid.**—Harrin's 90 cases show a total mortality of only 4.4 per cent. He attributes the good results he has obtained to the fasting to which he subjects his patients. He believes that all severe cases of typhoid should be starved from 24 to 48 hours in order to relieve the active symptoms which do the patient more harm than the lack of food. He asserts that fasting and a restricted diet are capable of shortening the course of the disease which, at times, may be made to run an abortive course.

10. **The Management of Fever.**—Eshner does not believe that clinically there is much to be gained in trying to distinguish between fever and pyrexia. Fever is probably due to the action of the toxins produced by the infecting organism or to cellular activity. It has been asserted by some that fever is in the nature of a protective process and serves to limit or counteract the virulence of the infection. This theory, however, is far from being proved. Treatment should consist in removing the cause of the fever, if possible, and endeavoring at the same time to restore the bodily functions to their normal state. Temperature itself rarely, if ever, needs direct treatment. Its treatment by drugs is often dangerous.

July 18, 1903.

1. **Neurologic Progress and Prospects: Chairman's Address,**
By F. W. LANGDON.
2. **The Dental Nurse: Chairman's Address,**
By M. L. RHEIN.
3. **Sunshine and Fresh Air vs. the Ultraviolet Rays and the Röntgen Rays in Tuberculosis of the Joints and Bones,**
By DE FOREST WILLARD.
4. **A Study of the Histologic Changes in Epithelioma Under the X Ray: A Preliminary Report,**
By J. CLARK STEWART.
5. **Varix of the Inferior Mesenteric Vein Complicated by Chronic Ulcerative Colitis: Operation,**
By J. E. SUMMERS.
6. **Congenital Dislocations of the Radius,**
By CHARLES A. POWERS.
7. **Necessity for More Care in the Treatment of Skull Fractures,**
By W. H. EARLES.
8. **Clinical Diagnosis of Intestinal Parasites,**
By CHARLES WARDELL STILES.
9. **A Contribution to the Study of the Summer Diarrhoeas of Infancy,**
By J. H. MASON KNOX, JR.

10. **Otitis Media in Infancy,** By JOHN LOVETT MORSE.
11. **Locomotor Ataxia Complicated by Thrombosis of the Pontile Arteries, with Report of Case,**
By S. D. HOPKINS.

3. **Tuberculosis of the Joints.**—Willard reaches the following conclusions: (1) Sunlight, fresh air, and good food, together with fixation and protection of the affected joint, are the most important agents in the contest with tuberculous infection. (2) Direct exposure to the rays of the sun is essential, and all hospitals should be provided with solaria or sun porches and roof gardens. (3) Patients lying in bed should have the diseased joints exposed to the direct rays of the sun, their heads and eyes being protected by green glasses or shades. The joints may be covered with blue, so as to secure easiest passage of the ultraviolet actinic rays, and local medications rich in iodine may be also employed as desired. (4) Tent life on the hospital grounds, or better, in the open forest, can be successfully employed through both summer and winter. (5) Sanatoria should be established for tuberculosis of the hard tissues, as well as of the soft. (6) The concentration of the sun's rays by lenses is of positive benefit in bactericidal influence. As final curative agents, however, the direct sun's rays are most effective. Electrical rays can be used when sunlight is lacking. (7) The Röntgen rays in the laboratory have an inhibitory power on the tubercle bacilli, and may prove useful in restraining the growth of these microorganisms in living tissues. (8) The actinic rays and the x rays are both apparently helpful in the fight with tuberculosis, but several years will be required to determine accurately their effect. They should be employed not to supersede, but to antedate and to supplement operative procedures, to assist the mechanical protection of the joint, and to increase the general therapeutic measures employed.

4. **The Changes in Epithelioma Under the X Ray.**—Stewart has based his studies of the changes produced by the x ray, in the structure of an epithelioma, upon the examination of the tissues excised from an epithelioma of the wrist of traumatic origin. The paper is well illustrated and the author concludes it with the following summary: (1) It is probable that when epitheliomata react favorably to x ray treatment that characteristic histological changes will be found. (2) The important early changes are fatty degeneration and vascularization of the epithelial pearls. (3) Leucocytic infiltration and various degeneration processes complete the destruction. (4) Bodies indistinguishable from "Plimmer's bodies" multiply as epithelia degenerate.

10. **Otitis Media.**—Morse, in all cases in infants, in which the diagnosis is not clear, always examines the ears. Symptoms are misleading and the only satisfactory way to reach a conclusion is to look into the ears with a speculum. Otitis media in infancy is more often mistaken for pneumonia, than for any other disease.

July 25, 1903.

1. Closure of Wounds, By MILES F. PORTER.
2. A Case of Acute, Non-Traumatic, Multiple Osteomyelitis, Produced by the Streptococcus, Occurring in a Male Adult, By JOHN T. BOTTOMLEY.
3. Further Experience with the Vertical Overlapping Operation for the Radical Cure of Umbilical Hernia, By WILLIAM J. MAYO.
4. Report of Operative Treatment of Graves's Disease, By T. C. WITHERSPOON.
5. Pathology and Treatment of Small Pox. An Analysis of Over Two Thousand Cases and of Over Fifty Autopsies, By NELSON D. BRAYTON.
6. Clinic at the Charity Hospital, New Orleans, By ISADORE DYER.
7. Limitations of Non Surgical Treatment in Acute Intestinal Obstruction, By JOSEPH RILUS EASTMAN.
8. Bacillary Dysentery (Shiga), By CHARLES F. MASON.
9. Malarial Dysentery, By WILLIAM BRITT BURNS.
10. Traumatic Pneumonia, By W. T. ENGLISH.
11. Vernal Conjunctivitis, By WM. CAMPBELL POSEY.

1. Closure of Wounds.—Porter emphasizes the following points: (1) The use of sutures should be avoided save where necessity demands their use. Many wounds, in which sutures are now commonly used, may be coapted more perfectly, more speedily and more safely without the use of sutures. (2) Tension and moisture are the only conditions making sutures necessary. (3) When sutures are necessary buried absorbable sutures should be used in all cases where there is no infection. (4) The necessity for drainage does not contraindicate the use of adhesive plaster for purposes of coaptation. (5) It is doubtful if the use of non-absorbable suture material should ever be used with a view to its remaining permanently. (6) Non-absorbable sutures are not necessary or advisable save in intestinal work and in the presence of sepsis. (7) In those cases in which non-absorbable sutures are necessary that method of applying them should be chosen which will subject the tissues to the least possible trauma, produce the fewest possible avenues for infection through the skin, and permit of their being removed when they have fulfilled their mission.

2. Acute Multiple Osteomyelitis.—Bottomley has been able to find only one other similar case in literature. His case he reports very fully. The points of chief interest are three: (a) the case showed multiple foci; (b) it occurred in an adult forty-three years old; and (c) the infecting organism was the streptococcus. Such cases demand early diagnosis and operative intervention as soon as the diagnosis is made. Free drainage is imperative.

3. Umbilical Hernia.—Mayo asserts that, with the operation he describes in detail, the expectation of cure in umbilical hernia approaches that of inguinal hernia. The operation is quickly and easily performed and the method is illustrated by three large plates. The steps of the operation are as follows: (1) Transverse elliptical incisions are made surrounding the umbilicus and hernia; these are deepened to the base of the hernial protrusion. (2) The surfaces of the aponeurotic structures are carefully cleared two and a half to

three inches in all directions from the neck of the sac. (3) The fibrous and peritoneal coverings of the hernia are divided in a circular manner at the neck, exposing its contents. If intestinal viscera are present, the adhesions are separated and restitution made. The contained omentum is ligated and removed with the entire sac of the hernia and without tedious dissection of the adherent portion of omenta. (4) An incision is made through the aponeurotic and peritoneal structures of the ring extending one inch or less transversely to each side, and the peritonæum is separated from the under surface of the upper of the two flaps thus formed. (5) Beginning from two to two and one-half inches above the margin of the upper flap, three to four mattress sutures of silk or other permanent material are introduced, the loop firmly grasping the upper margin of the lower flap; sufficient traction is made on these sutures to enable peritoneal approximation with running suture of catgut. The mattress sutures are then drawn into position, sliding the entire lower flap into the pocket previously formed between the aponeurosis and the peritonæum above. (6) The free margin of the upper flap is fixed by catgut sutures to the surface of the aponeurosis below, and the superficial incision closed in the usual manner. In the larger herniæ the incision through the fibrous coverings of the sac may be made somewhat above the base, thereby increasing the amount of tissue to be used in the overlapping process.

5. Small-Pox.—Brayton agrees with Chambers and Welch with regard to the value of the red light treatment of small-pox. There "is nothing in it." It has no influence of any kind, so far as the author has been able to determine, from an experience with some 300 cases. The prevention of pitting is beyond the power of the physician. There is nothing, except good fortune, that is of avail.

BOSTON MEDICAL AND SURGICAL JOURNAL.

July 23, 1903.

1. The Shattuck Lecture Before the Massachusetts Medical Society, June 9, 1903: The Sources, Favoring Conditions and Prophylaxis of Malaria in Temperate Climates, with Special Reference to Massachusetts, By THEOBALD SMITH.
2. Studies on the Action of Alcohol in Disease, Especially Upon the Circulation, By RICHARD C. CABOT.

1. Malaria.—Smith's article was begun in the issue of July 16th and is continued but not concluded in the present number. The first part of his paper was considered last week. The present and following parts will be abstracted together.

2. The Action of Alcohol.—Cabot believes that most of the current teaching on the action of alcohol is either founded on assumptions or general impressions or on the belief that its action is the same in disease as it is in health. He has studied experimentally the two following questions: (1) The effect of alcohol on the circulation in the sick. (2) Its effect on the power of man's blood to resist infection. Only the results of his study of the first of these two problems are now reported. The following facts, regarding the action of alcohol, he considers as already established by the investiga-

tions of other observers: (a) In health alcohol can replace the fats and carbohydrates. Whether it can replace the proteids is not yet settled. Alcohol is both a food and a poison. (b) In the stomach alcohol disturbs the digestive process to a greater or less degree. After absorption it exerts through the nervous system a temporary increase both in the secretion and in the motility of the stomach. On intestinal absorption, so far as known, alcohol exerts little or no influence. (c) In healthy people and in persons with cardiac and renal diseases alcohol has no considerable diuretic power. In healthy people it rather decreases than increases diaphoresis. (d) The labor of respiration is increased by alcohol, yet there is no increase in the amount of O absorbed nor in the quantity of CO₂ given off. To the above facts regarding the action of alcohol he adds the following determined by his experiments: (1) The action of alcohol upon the circulation is *nil*. Neither the maximum nor minimum blood pressure showed any variation that could reasonably be attributed to the action of alcohol. (2) From the study of 309 patients suffering from a great variety of diseases it would seem that alcohol, in therapeutic diseases, has no effect on the temperature, pulse rate, respiration rate, appetite, delirium, and secretions. These observations should not, however, be interpreted as proving that alcohol is useless or useful in disease.

AMERICAN MEDICINE.

July 25, 1903.

1. Mycotic Enzymes, By B. H. BUNTON.
2. Some Practical Considerations on the Tumefactions of the Climateric Breast, By THEODORE A. MCGRAW.
3. The Pathology of Latent Malarial Infection as Observed at Autopsy, By CHARLES F. CRAIG.
4. Fowler's Position in Abdominal Surgery, By VAN BUREN KNOTT.
5. The Diagnosis and Treatment of Inflammations of Accessory Nasal Sinuses, By JOSEPH S. GIBB.
6. Minimum Requirements for Admission to a Medical College, By WILLIAM H. WATHEN.

2. **Tumors of the Breast.**—McGraw, years ago, was in the habit of teaching his students that, if in doubt about the malignancy or non-malignancy of a breast tumor in a woman past forty, the safest course was to resort to immediate an extensive operation. He now believes, for reasons which he gives in detail, that his teaching was far too radical. He is now of the opinion that benign swellings of the female breast, even in the climateric period, are more common than is generally supposed. It is therefore incumbent on all physicians to use all known methods of diagnosis before resorting to the radical operation. One method of investigating growths in the breast, which is extremely valuable but little used, is by means of the aspirating needle. If the diagnosis is still in doubt then one should resort to exploratory incision. The diagnosis of malignant neoplasm having once been made beyond a reasonable doubt nothing short of the most radical operation should be considered. If taken early it is possible at the present time to save a large minority of all patients suffering with carcinoma of the breast.

3. **Latent Malaria.**—Craig gives the results of a study of seven autopsies performed on patients who died of other diseases than malaria and who, before their death, had not shown any symptoms of malaria and in whom it was not possible, after repeated examinations of the blood, to demonstrate the malarial parasite in their general circulation. Of these seven cases, three were found to be infected with the parasite of benign tertian fever and four with the parasite of æstivoautumnal fever of the tertian type. Most of the cases here reported were in the hospital for several weeks; repeated blood examinations were made; they were studied carefully clinically, and in none of them was malarial infection suspected. The autopsy findings show that a malarial infection may exist in a human being, the parasites undergoing their normal evolution without producing any symptoms, and without an examination of the blood proving positive. In both the tertian and autumnal cases the malarial parasite was found to be undergoing its normal human life cycle within the spleen. Other organs, with the exception of the liver, showed no changes due to the particular infection under consideration.

4. **Fowler's Position.**—Knott is a firm believer in the efficacy of Fowler's position in the treatment of septic peritonitis. He reports five successful cases, not consecutive, and in a note to his paper adds that he has recently saved three consecutive cases of diffuse septic peritonitis due to appendicitis, by means of operation and Fowler's position. Fowler's position is simplicity itself. It is obtained merely by elevating the foot of the bed from 24 to 30 inches. This elevation should be maintained for about twenty-four hours. The author has never yet seen any indications which have called for the abandonment of the position nor has he noticed any evil effects due to it. On the contrary, not only is the peritonitis favorably influenced, but the patient is made generally more comfortable. The postoperative vomiting is decreased, wind colic is diminished, flatus is passed earlier and the bowels move earlier. It must not be thought that the method is to be used in place of operation. It is an adjunct to the means of drainage established by operation and serves to keep the septic material in the lower part of the abdomen where the peritonæum is less sensitive and less given to the absorption of septic material. The author has used the method after every laparotomy performed by him during the past two years, 326 in all, and says that the comfort afforded because of it can scarcely be estimated. Detailed histories of five of the author's cases, that recovered from septic peritonitis, are given.

MEDICAL NEWS.

July 25, 1903.

1. Studies on the Action of Alcohol in Disease, Especially Upon the Circulation, By RICHARD C. CABOT.
2. Malignant Tumors of the Testis, By WILLIAM B. COLEY.
3. Alcoholism in Women, By AGNES SPARKS.
4. Alcoholic Toxæmia: Its Pathology and Treatment, By THOMAS D. CROTHERS.

5. Infant Feeding. A Science and Art,
By JOHN F. CONNORS.
6. A Case of Panophthalmitis in Typhoid Fever,
By W. WHITEHEAD GILFILLAN.

1. **The Action of Alcohol.**—See *Boston Medical and Surgical Journal*, July 23d.

2. **Tumors of the Testis.**—Coley reports fifteen cases of tumors of the testis. Fourteen of the tumors were sarcomata and one was a teratoma. The author regards the latter kind of tumor as almost malignant in character. More than 50 per cent. of the author's cases occurred in young adults between twenty and thirty years of age. It is usually stated that sarcoma of the testis is a disease of childhood and old age. Coley is inclined to believe that traumatism plays an important part in the ætiology of sarcoma. In his own experience there has been a distinct history of injury in fully one-half of the cases, in many of which the sarcoma followed so soon after the injury that there could be no question of the latter's ætiological significance. The results obtained, as a result of operative intervention in sarcoma of the testis, are, according to the author, very far from gratifying. Yet there is nothing else to do except operate. The treatment he recommends is complete removal of the testis and cord as far up as the internal ring as soon as the diagnosis is made. In addition, he recommends most strongly a course of treatment with the mixed toxines of erysipelas and *Bacillus prodigiosus*, for at least three months after operation, as a prophylactic measure. There is one more caution; one should never remove a section and wait for a microscopical diagnosis, since the danger of infected cells being carried to remote parts by the blood current is a real danger.

3. **Alcoholism in Women.**—Sparks asserts that women are more often exempt than men from hereditary craving for alcohol. A woman usually becomes an alcoholic in an effort to seek relief from physical discomfort and ill health. Her native modesty makes her shrink from publicity, so that secret drinking is the usual form her intemperance takes.

6. **Panophthalmitis.**—Gilfillan reports a case of panophthalmitis complicating typhoid fever. The occurrence of this complication is extremely rare. Less than a dozen cases have so far been reported. In the case reported the inflammation of the eye set in on the twenty-sixth day of the typhoid.

MEDICAL RECORD.

July 25, 1903.

1. Some Cases Treated by the X Ray,
By WILLIAM JAMES MORTON.
2. Congenital Laryngeal Stridor,
By JAMES E. NEWCOMB.
3. Perichondritis of the Larynx, with Report of a Case,
By EMIL MAYER.
4. Gouty Phlebitis, By A. A. GETMAN and R. W. AMIDON.
5. Hybrid Malaria, By J. LINDSAY PORTEOUS.
6. "Authority and Facts,"
By J. R. CLEMENS.

1. **The X Ray.**—Morton reports in all sixteen cases treated by the x ray. In fifteen of the cases a cure was obtained. Case histories are given in de-

tail and a number of illustrations show the results obtained in some of the cases. The following summary of the diseases treated will show the scope of the paper. Carcinoma, two cases both cured; epithelioma, five cases, four cures and one failure; carbuncle, one case and one cure; cheloid, two cases, both cured; acne, one case, cured; alopecia areata, one case, cured; sychosis, one case, cured; fibroid tumor of uterus, one case, cured symptomatically, the tumor mass itself being reduced by one-third; psoriasis, one case, cured: the x ray in this case seems to have exerted a constitutional influence, since patches on the scalp which were not subjected to local treatment, disappeared also; lupus vulgaris, one case, cured.

2. **Laryngeal Stridor.**—Newcomb describes the condition as a stridor coming on within a few days of birth, continuing for a certain period, measured usually in months, but possibly in years, apparently not doing the child much, if any, injury, and finally subsiding of its own accord without sequela. He reviews the different theories from time to time put forth to account for the condition and believes that the one advanced by Lack is the most acceptable. According to Lack the condition is due to congenital deformity of the superior laryngeal aperture, aided by the flaccidity of the parts in infancy but not entirely dependent thereon. The prognosis is on the whole favorable, though the condition may lead to deformity of the thorax or may even prove fatal. Many different forms of treatment have been recommended. The author asserts that if the view he takes of the pathology of the condition be correct, no treatment beyond a general tonic one will be called for.

3. **Perichondritis of the Larynx.**—Mayer devotes himself chiefly to those forms, due to typhoid infection, which result in stenosis of the larynx. The condition is apparently of rarer occurrence in the United States than it is in Europe. It is serious. Of eight cases recently reported as occurring in this country two recovered completely, two partially (that is, they have yet to wear the tube) and four have died. From a study of the reported cases and from the experience gained with his own the author recommends the following line of treatment: Early tracheotomy, with subsequent dilatation and finally intubation of the larynx. One personal case is reported which has these features of interest: The early development of laryngeal symptoms during the disease, though unfortunately unrecognized, the enormous submucous infiltration, both before and after tracheotomy, the success that followed dilatation, making intubation under anæsthesia very easy and the subsequent ease of deglutition with the tube still in place.

4. **Gouty Phlebitis.**—Getman and Amidon report one case. It corresponds to that class of cases first brought to the attention of the profession by Paget. The treatment, which is not very satisfactory, consists chiefly in rest in bed and the local application of heat and soothing lotions. After a treatment lasting for 115 days the patient was able to get about on crutches, although there was yet considerable swelling of one of her legs and feet, the collateral circulation not having become completely reestablished.

Letters to the Editor.

THE EFFECT OF TETANUS ANTITOXINE ON WOUNDS.

TULIP AND HUNTINGDON STREETS,
PHILADELPHIA, July 24, 1903.

To the Editor.

Sir: I wish to report two cases of toy pistol wounds. Both patients were boys, aged respectively eleven and twelve years, who were injured on the hand while celebrating the Fourth and received home treatment until evidences of inflammation forced the parents to seek for surgical interference. One patient was brought to me nine hours and the other twenty-four hours after the occurrence of the accident. In the one case the cartridge wad was imbedded deeply in the palm of the hand. Twenty-one days have elapsed, during which they have reported themselves daily, the wounds being well syringed first with a full strength solution of peroxide of hydrogen, followed by a solution ($\frac{1}{500}$ per cent.) of bichloride of mercury, and afterward drying the cavity, dusting and filling it with powdered iodoform and inserting gauze for drainage purpose. On the tenth and eleventh days (July 13th and 14th) there was increasing local tenderness, the boys complaining bitterly of pain during the dressing of the wounds.

This was apparently combated by an immunizing dose of antitetanic serum (5 c.c.) injected in the loose folds of the back.

The result was very marked and gratifying, the extreme tenderness giving place to almost absolute freedom from pain. The process of healing is still going on, the wounds manifesting a healthy appearance.

HENRY MEDD.

Book Notices.

Bacteriology. A manual for Students and Practitioners. By FRED. C. ZAPFFE, M. D., Professor of Pathology and Bacteriology in the Illinois Medical College; Professor of Histology in the Department of Medicine and in the School of Dentistry of the University of Illinois, Chicago. Series edited by BERN B. GALLAUDET, M. D., Demonstrator of Anatomy and Instructor in Surgery, College of Physicians and Surgeons, Columbia University, New York; Visiting Surgeon, Bellevue Hospital, New York. Illustrated with One Hundred and Forty-six Engravings and Seven Colored Plates. Philadelphia and New York: Lea Brothers & Co. Pp. 3-350.

This book represents a course of lectures delivered by the author, together with elementary laboratory exercises. The subject is presented in four parts, the first dealing with the morphology and biology of bacteria, preparation of media, sterilization, cultures, microscopic examination, animal experimentation, immunity, and antitoxines. The succeeding parts take up non-pathogenic bacteria, pathogenic bacteria, and organisms pathogenic for animals only. The ground is well covered for a book of small size, but without the assistance of practical laboratory instruction a beginner would

have considerable difficulty in conducting ordinary routine bacteriological procedure under its guidance. In recent years a number of smaller works have been published that contain just these practical and useful directions. In the preparation of a book of this kind, it is the minute attention to the most trivial technical details that appeals to the student and serves him best. The subject is treated of in terse, forcible language, and the chapters on infection and immunity are especially lucid and easy of comprehension. Our criticisms are simply made in a general way, and we cannot fail to recognize the usefulness of the book when studied in connection with practical instruction. The book forms a handsome volume, tastefully bound and well printed, and the majority of the illustrations are well chosen.

Manual of Bacteriology. By ROBERT MUIR, M. A., M. D., F. R. C. P. Ed., Professor of Pathology, University of Glasgow; and JAMES RITCHIE, M. A., M. D., B. Sc., Reader in Pathology, University of Oxford. American Edition, with Additions, Revised and Edited from the Third English Edition by NORMAN MACLEOD HARRIS, M. B. (Tor.), Associate in Bacteriology, the Johns Hopkins University, Baltimore. With One Hundred and Seventy Illustrations. New York: The Macmillan Company, 1903. Pp. xx-565.

This book now appears in a somewhat larger size than the earlier editions, but the general plan and scope remain unchanged. Its value, however, has been enhanced by the careful and skillful editing of Dr. Harris, who has made numerous additions to the text, covering the recent advances made in this branch of medicine. The student or practitioner who studies this work will be duly rewarded, for the practical nature of the book is seen on almost every page. The cautions and advice given to the beginner are of extreme value, and useful hints for the more mature worker are not lacking. Above all, the language is clear, explicit and terse. The chapter on immunity, with the more recent views and theories, is especially interesting and instructive. We predict for this manual the well merited popularity that the earlier editions received.

Bacteria in Daily Life. By MRS. PERCY FRANKLAND, Fellow of the Royal Microscopical Society, London, etc. London, New York, and Bombay: Longmans, Green, & Company, 1903. Pp. 216.

It is impossible to find fault with this little book, and its wide dissemination among non-medical persons would prove a great source of profit to society at large. It is a most excellent compilation of all the important discoveries in bacteriology, the practical significance of each, the dangers of faulty hygiene and sanitation, and the means of overcoming and preventing the spread of disease. The author has selected the important facts and has presented them in a scientific, yet judicious, manner, so that the layman will have no difficulty in following the text. Many of the articles have appeared as popular contributions to various magazines, but have been more or less revised for the present occasion. We urge physicians to recommend this book to those desirous of acquiring clear and accurate information on a subject of such vast importance.

The Elements of Pathological Anatomy and Histology for Students. By WALTER SYDNEY LAZARUS-BARLOW, B. A., B. C., M. D. (Camb.), F. R. C. P. (Lond.), Pathologist and Lecturer on Pathology at the Westminster Hospital, etc. Philadelphia: P. Blakiston's Son & Company, 1903. Pp. xiii-705. (Price, \$6.50.)

The author states in his preface that this work is intended to give the student an insight into the main types of pathological changes, rather than a description of numerous subvarieties. As a consequence, the book is quite elementary in nature and adapted mainly for the beginner. Here and there the relationship between well defined clinical manifestation and the pathological processes causing them is so well brought out that the student is compelled to realize and grasp the subject without the difficulty that he usually encounters. As a textbook, it is unique in this respect.

The book is divided into two parts, General Pathological Anatomy and Histology of Special Organs and Tissues, and the subjects are taken up in the manner customary to textbooks of this nature. All the illustrations, and most of them are very satisfactory, are reproduced from drawings made by a non-medical artist. In consequence of this fact, the drawings are represented in a faithful manner and are not semidiagrammatic in character. The book abounds in personal views of the author, who has taken advantage of his large field of observation and wide experience to give us the weight of his authority.

It is not our desire to criticize certain parts of the book, but simply to point out a few facts and theories that appear somewhat striking and at times significant. The writer leans somewhat to the theory that the giant cell is an artifact, and that it is simply a transverse section of a lymphatic or capillary blood vessel the contents of which have coagulated *in situ*. "This would account for the granular and undifferentiated appearance of the protoplasm. And if we assume that there is a general or a local proliferation of the endothelial cells lining the vessel, an explanation is afforded for the entire appearance of a giant cell." He also says that if this view is accepted, the absence of blood vessels in a miliary tubercle could readily be accounted for by the presence of giant cells, which would then represent thrombosed capillaries. The author takes a neutral stand in his discussion on the various theories of the ætiology of malignant tumors. The points in favor of each theory, as well as the objects, are clearly set forth.

The word epithelioma is totally discarded, and this form of growth is included with carcinomata, where it rightly belongs. Otherwise, his classification of new growths is based on the customary anatomical and embryological features. The endotheliomata are still the source of much confusion to all writers, and we are not surprised to see that the author also finds some difficulty in his description. The normal leucocytes are divided into the following varieties: (a) finely granular oxyphile cells, (b) coarsely granular oxyphile cells, (c) hyaline cells, (d) lymphocytes. The first three varieties naturally correspond to the ordinary forms of multinuclear neutrophiles, eosinophiles, and uninuclear cells, respectively. Among the pathological

leucocytes are basophile cells with either fine or coarse granules (Mastzellen) and atypical oxyphile or atypical hyaline cells (myelocytes). A drawing to illustrate the malarial organism could have been added profitably to the single page devoted to that subject. The chapter on the heart is excellent, while that on the thymus is far too brief. A considerable number of pathological changes that have been found in this organ in recent years have been described and are worthy of mention in any modern textbook.

The chapter on bones and that on the digestive tract are well written and quite complete, although mention should have been made, under tumors of the intestine of sarcoma, which is not quite so rare as the author seems to believe, and also of primary carcinoma of the vermiform appendix. The chapter on the pancreas is truly elementary, and but scant notice has been taken of the superb work accomplished in this country in recent years in connection with the pathology of this organ. No mention is made of hæmorrhagic pancreatitis, tuberculosis, syphilis, or sarcoma, and among the many forms of acute and chronic inflammation, only abscess and gangrenous pancreatitis are described.

In the chapter on nephritis the author describes, under inflammatory changes, glomerular nephritis and tubal nephritis, and he divides the latter into four distinct varieties, namely, acute tubal nephritis, subacute tubal nephritis, contracted white kidney, and nephritis secondary to chronic fibrosis. The student will find much to perplex him in this classification.

We have read this book thoroughly and can only say that the amount of information which it contains is vast. It is true that the author did not intend to give a description of the numerous subvarieties of pathological lesions, as he mentions in the preface; consequently some of our critical remarks may be out of place. But, on the other hand, certain facts in symptomatology and diagnosis, as well as treatment, have been mentioned which could very well have been omitted in a work of this nature. The book will well pay perusal by the pathologist, and it will interest him, but the student will find other works in which the text is arranged in a logical order more suited to his requirements.

BOOKS RECEIVED, ETC.

*On a Method by which the Eggs of the Sea Urchin (*Strongylocentrotus Purpuratus*) can be Fertilized with the Sperm of a Starfish (*Asterias Ochreacea*).* By JACQUES LOUR. (University of California Publications.) Physiology, Vol. 1, No. 1, pp. 1-3. April 27, 1903. Berkeley, California: The University Press.

Aseptic Preparation for Surgical Work in Country Practice. By Dr. C. AM ENDE. Reprint from the Post-Graduate, March, 1903.

Internal Antisepsis in Typhoid Fever. By Dr. C. AM ENDE. Reprinted from the Post-Graduate, February, 1903.

Die Rektoskopiauf anatomisch-physiologischer Grundlage. Methodologische Studien nebst klinischen Ergebnissen und Hinweisen. Von Professor Dr. J. SCHREIBER, Direktor der Königl. medizinischen Universitäts-Poliklinik zu Königsberg i. P. Mit 3 Tafeln und Abbildungen im Text. Berlin: Verlag von August Hirschwald, 1903.

Die Topographie der Niere und ihre Bedeutung für die Nieren-Chirurgie. Von Dr. M. ZONDEK, Berlin. Mit Abbildungen im Text. Berlin: 1903. Verlag von August Hirschwald. Pp. iii-104.

Organic Nervous Diseases. By M. ALLEN STARR, M. D., PH. D., LL. D., Professor of Disease of the Mind and Nervous System, College of Physicians and Surgeons, the Medical Department of Columbia University in the City of New York; Consulting Neurologist to the Presbyterian, St. Vincent's Hospitals, St. Mary's Free Hospital for Children, and to the New York Eye and Ear Infirmary; ex-President of the American Neurological Association and of the New York Neurological Society; Vice-President of the New York Academy of Medicine; Corresponding Member of the Société de Neurologie de Paris, Author of "Familiar Forms of Nervous Disease," "Brain Surgery," and "Atlas of Nerve Cells." Illustrated with 275 Engravings in the text, and 26 Plates in colors, and Monochrome. New York and Philadelphia: Lea Brothers & Co., 1903.

The Praxis of Urinary Analysis. A Guide to the Chemical Analysis of Urine. With Directions for Preparing Artificial Pathological Urines for Practising the Various Tests, and an Appendix on the Analysis of Stomach Contents. By DR. LASSAR-COHN, Professor in the University of Königsberg. Authorized Translation from the Author's Enlarged and Revised Second Edition, by H. W. F. LORENZ, A. M., PH. D. (Berlin), Late Instructor of Organic Chemistry in the University of Pennsylvania. First Thousand. New York: John Wiley & Sons, London: Chapman & Hall, Limited, 1903.

Protozoa and Disease. By J. JACKSON CLARKE, M. B. Lond., Author of "Surgical Pathology and Principles," etc. New York: William Wood & Company. MDCCCIII.

On Syphonage and Hydraulic Pressure in the Large Intestine with Their Bearing Upon the Treatment of Constipation, Appendicitis, etc. By RALPH WINNINGTON LEFTWICH, M. D. Late Assistant Physician for the East London Children's Hospital, Author of "An Index of Symptoms," etc. New York: William Wood & Company, 1903.

The Practical Medicine Series of Year Books, Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Issued Monthly. Under the General Editorial Charge of GUSTAVUS P. HEAD, M. D. Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume VI, General Medicine, Edited By FRANK BILLINGS, M. D., LL. D. Head of the Medical Department, and Dean of the Faculty of Rush Medical College, Chicago, and J. H. SALISBURY, M. D. Professor of Medicine, Chicago Clinical School. May, 1903. Chicago: The Year Book Publishers, 40 Dearborn Street.

First Principles of Otology. A Text-Book for Medical Students. By ALBERT H. BUCK, M. D., New York City. Clinical Professor of the Diseases of the Ear. College of Physicians and Surgeons, Medical Department of Columbia University, New York; Consulting Aural Surgeon, New York Eye and Ear Infirmary and the Presbyterian Hospital. Second Edition. New York: William Wood & Company. MDCCCIII.

Uric Acid as a Factor in the Causation of Disease. A Contribution to the Pathology of High Blood Pressure, Headache, Epilepsy, Nervousness, Mental Diseases, Asthma, Hay Fever, Paroxysmal, Hemoglobinuria, Anæmia, Bright's Disease, Diabetes, Gout, Rheumatism, Bronchitis, and Other Disorders. By ALEXANDER HAIG, M. A., M. D. Oxon., F. R. C. P. Physician to the Metropolitan Hospital, and the Royal Hospital for Children and Women; Late Casualty Physician to St. Bartholomew's Hospital. Sixth Edition, With Seventy-Five Illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street, 1903 (All Rights Reserved).

Diseases and Injuries of the Eye With Their Medical and Surgical Treatment. By GEORGE LAWSON, F. R. C. S. England, Surgeon Oculist-in-Ordinary to Her Majesty the Late Queen Victoria; Late Member of the Council of the Royal College of Surgeons of England; Consulting Surgeon to the Royal London Ophthalmic Hospital and to the Middlesex Hospital, Sixth Edition, with 249 Illustrations. Revised and in Great Measure Re-Written By ARNOLD LAWSON, F. R. C. S. England, Assistant Surgeon to the Royal Ophthalmic Hospital; Ophthalmic Surgeon to the Paddington Green Children's Hospital; Consulting Ophthalmic Surgeon to the Royal Hospital for Incurables, Putney, and to the Hospital of St. John and St. Elizabeth, St. John's Wood. London: Smith, Elder & Co., 15 Waterloo Place, 1903 (All Rights Reserved).

Miscellany.

An International Misconception Dispelled.—*The Climates and Baths of Great Britain and Ireland* is the title of a book which, according to the *Edinburgh Medical Journal* for May, "is the outcome of a report of a committee of the Royal Medical and Chirurgical Society of London," and which, moreover, "continues the description of the climates of Great Britain and Ireland as the second volume of the series!" Climates, not climate, mark you; when every one on this side knows, or has hitherto thought he knew, that Great Britain has no climate—only weather, and samples at that! And baths! The second volume of a series descriptive of what we always thought consisted only of the sponge and the tin "tub" that our British cousin carries on a cab with his trunk and other belongings when he travels; a provincial city, named Bath, because it is in a bishop's see; and the Order of the Bath, which is a high-toned form of ablution taken in a more than ordinary allowance of robes and decorations, instead of *in puris naturalibus*! With such a gigantic misunderstanding to our score, can we consistently blame our English cousins for their (to us) amazing ignorance of American geography, history, institutions, and customs? After all, that which divides the English from the Americans is, perhaps, not so much the Atlantic Ocean as their mutual ignorance of one another. In spite of liners, cables, and wireless telegraphy, we cannot abolish the ocean. It might not be a bad idea to turn our attention toward the remaining factor.

Women in Medicine.—*The Woman's Medical Journal* for June published the following details concerning the spread of the woman physician movement in modern times: "The number of female physicians is increasing every year in all civilized countries of the world. Madame Dr. Melanie Lipinska, a Polish lady now living in Paris, in a recent article in a French contemporary calls attention to the fact that the first prominent female physician was Florence Nightingale, now an old lady still living in London. The first European university admitting female medical students was Zurich, in 1864. Then followed Paris, in 1868, and then London. In 1901 there were altogether 95 female physicians in France, chiefly in Paris. In 1900 there were 11 colleges in England where ladies could study medicine. During the same year there were 258 female physicians in England. There are, furthermore, 156 English female physicians in India, China, Egypt and other Oriental countries. In Switzerland there were in 1900 altogether 355 female medical students. Russian Poland had 90 female physicians in 1900, while in Italy, Portugal, Bulgaria, Roumania, Greece, Belgium, Holland, Sweden and Denmark the number of female physicians did not exceed 20. Up to the year 1890 no female medical students were admitted to any university in Austria-Hungary. Germany opened her universities to female medical students only in the year 1899, and in 1900 there were 406 female medical students at the various universities of the Empire. In 1893 there were already over 2,000 female physicians in the United States."

[We fancy Dr. Lipinska is in error in describing Florence Nightingale as a physician.]

Everything Depends Upon the Point of View.
—Dr. J. F. Sutherland (*Edinburgh Medical Journal*) in an article entitled Glimpses of the Madrid Congress and Southern Spain tells the following story:

"As a fact of medical interest it may be permissible to remind your readers that the teaching of the deaf and dumb by signs was first practised in Spain. The dilemma of King James, whose regard for the truth was never too great, when the Spanish ambassador asked the English monarch if anything was done for the deaf and dumb in England, will be in the recollection of some. The king replied that there was. Whereupon the ambassador asked to see the professors before he returned to Spain. But they could not be produced, as they had gone, so said the king, to put down witchcraft and superstition in the Highlands. The ambassador said, 'I will delay my return.' The king, in sore straits, consulted his chief court advisers—the barber, the baker and the butcher; and they hit upon a plan, selecting the butcher, a clever man, who had only one eye, as the 'professor.' A meeting was arranged. The butcher, attired in court dress, entered the ambassador's chamber. Not a word was uttered. Everything was done by signs. The ambassador first raised one finger, the butcher followed with two, then the ambassador three, the butcher losing his hand. The ambassador took an orange from his pocket, the butcher replied with a piece of wheaten bread. Bowing silently, they retired, the ambassador first seeking the king's apartment to announce that the English 'professor' was a wonderful man and correctly gauged each sign made. I raised one finger to indicate 'one God;' he raised two, 'Father and Son;' I raised three, 'Father, Son and Holy Ghost;' he closed his fist, to indicate 'the Three in One.' I produced an orange, the fruit of Spain; he replied with wheaten bread, the staff of life in England.' The butcher next entered the royal apartment. 'What think you,' said the king, 'of the ambassador's signs?' 'Were it not for your majesty,' replied the butcher, 'I would have assaulted the foreign scoundrel. He put up one finger, to insult me by indicating that I had only one eye; I put up two, to indicate that my one was as good as his two; he put up three, to say here were only three eyes between us; I closed my fist, and meant to let him have it straight from the shoulder, when I recollected the respect I owed to your majesty.'"

Crystallized Wisdom; The Value of the Family Physician.—Bacon (*Essay XXX. Of Regimen of Health*), discussing the choice of a physician, says: "And forget not to call as well the best acquainted with your body, as the best reputed for his faculty."

In a Multitude of Councillors Is There Always Wisdom?—Macaulay (*History of England*, cap. v.), relating the death of Charles II, says: "Several of the prescriptions have been preserved. One of them is signed by fourteen doctors. . . . He recovered his senses; but he was vividly in a situation of extreme danger."
Virandion est?

Official News.

Infectious Diseases in New York:

We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending July 25, 1903:

DISEASES.	Week end'g July 18.		Week end'g July 25.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	356	14	247	14
Diphtheria and Croup	257	43	321	30
Scarlet fever	117	11	111	12
Small pox	0	0	0	0
Chicken pox	59	1	13	0
Tuberculosis	293	141	293	121
Typhoid fever	73	16	66	14
Cerebrospinal meningitis	0	0	0	0

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending July 25, 1903:

BOYD, J. C., Medical Director. Commissioned medical director, with rank of captain, from June 20, 1903.
COCKE, P. L., Acting Assistant Surgeon. Detached from the *Chesapeake* and ordered to the Naval Hospital, New York, N. Y., for treatment.
HUNTINGTON, E. O., Surgeon. Detached from the *Maine* and ordered to the Naval Hospital, Navy Yard, New York, N. Y., for treatment.
KINDLEBERGER, C. P., Surgeon. Ordered to the *Independence*.
LUMSDEN, G. P., Surgeon. Detached from the Naval Station, Port Royal, S. C., August 1st, and ordered to the Torpedo Station, R. I.
KENNEDY, R. M., Surgeon. Detached from the Torpedo Station, Newport, R. I., and ordered to the *Dixie*.
PLUMMER, R. W., Passed Assistant Surgeon. Ordered to the *Maine*.
STUART, A., Surgeon. Granted sick leave for two months.

The following Passed Assistant Surgeons have been commissioned Surgeons with the rank of Lieutenant-Commander, from March 3, 1903: C. P. BAGG, A. W. DUNBAR, A. FARENHOLT, E. J. GROW, M. S. ELLIOTT, R. K. SMITH.

The following Assistant Surgeons have been appointed Assistant Surgeons with rank of Lieutenant, junior grade, from June 26, 1903: C. E. RYDER and J. A. RANDALL; and the following have been appointed Acting Assistant Surgeons with rank of Lieutenant, junior grade, from July 14, 1903: C. T. GRAYSON and A. H. WISE.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department of the United States Army for the week ending July 25, 1903:

BEVANS, JAMES L., First Lieutenant and Assistant Surgeon. Will take station at Morro Castle, Santiago, Cuba, upon his abandonment of Rowell Barracks, Cuba.
CROSBY, W. D., Major and Surgeon. Relieved from duty at Camp George H. Thomas, Ga., and granted thirty days' leave of absence.
HOWARD, DEAN C., First Lieutenant and Assistant Surgeon. Relieved from duty at Morro Castle, Santiago, Cuba, and will proceed to New York, N. Y., and report to the Adjutant-General of the Army for orders.
LYNCH, CHARLES, Captain and Assistant Surgeon. Relieved from duty at Fort Porter, N. Y., and will proceed to Washington, D. C., to report to the surgeon-general for duty.

The following assignments to stations and duties of assistant surgeons recently appointed are made:

BOSLEY, JOHN R., First Lieutenant and Assistant Surgeon. to U. S. General Hospital, Washington Barracks, D. C.
BROWN, ORVILLE G., First Lieutenant and Assistant Surgeon, to Fort Monroe, Va.
FOSTER, CHARLES L., First Lieutenant and Assistant Surgeon, to Fort Myer, Va.
JONES, PERCY L., First Lieutenant and Assistant Surgeon, to Fort Monroe, Va.
LOVING, ROBERT C., First Lieutenant and Assistant Surgeon, to Fort Leavenworth, Kan.

PALMER, FRED W., First Lieutenant and Assistant Surgeon, to Jefferson Barracks, Mo.

PIPES, HENRY F., First Lieutenant and Assistant Surgeon, to Fort Barrancas, Fla.

PORTER, RALPH S., First Lieutenant and Assistant Surgeon, to Fort Leavenworth, Kan.

REED, GEORGE P., First Lieutenant and Assistant Surgeon, to the U. S. General Hospital, Washington Barracks, D. C.

SILER, JOSEPH F., First Lieutenant and Assistant Surgeon, to Fort McPherson, Ga.

STEDMAN, CHARLES J., First Lieutenant and Assistant Surgeon, to Fort Adams, R. I.

THOMASON, HENRY D., First Lieutenant and Assistant Surgeon, to Whipple Barracks, Ariz.

VEDDER, EDWARD B., First Lieutenant and Assistant Surgeon, to Fort Columbus, N. Y.

WHALEY, ARTHUR M., First Lieutenant and Assistant Surgeon, to Fort Sheridan, Ill.

Public Health and Marine Hospital Service:

Official List of the Changes of Station and Duties of Commissioned and Non-commissioned Officers of the Public Health and Marine Hospital Service for the Seven Days Ending July 23, 1903.

CLARK, TALIAFERRO, Passed Assistant Surgeon. Granted extension of leave of absence for fourteen days from July 20th.

DUKE, B. F., Acting Assistant Surgeon. Granted leave of absence for two days, July 17, 1903.

GLENNAN, A. H., Assistant Surgeon General. To proceed to Reedy Island quarantine for special temporary duty.

ILTIS, G. W., Pharmacist. Granted leave of absence for seven days from July 15, 1903, under paragraph 191 of the regulations.

LEONHARDT, S. C., Acting Assistant Surgeon. Granted leave of absence for thirty days from September 1st.

PARKER, H. B., Passed Assistant Surgeon. To report to Assistant Surgeon General H. D. Geddings for temporary duty, July 22, 1903.

SPRAGUE, E. K., Passed Assistant Surgeon. Granted leave of absence for ten days from July 22d.

STEPHENSON, C. W., Pharmacist. Granted leave of absence for twenty-three days from August 3d.

WHITE, J. H., Surgeon. Granted extension of leave of absence for one month from August 2d.

WILLIAMS, L. D., Assistant Surgeon-General. Granted leave of absence for seven days from July 18th.

Resignation.

Acting Assistant Surgeon S. C. Leonhardt resigned, to take effect October 1, 1903.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera and plague, have been reported to the surgeon-general, Public Health and Marine Hospital Service, during the week ending July 21, 1903.

Smallpox—United States.

Places.	Date.	Cases.	Deaths.
Colorado—Denver	June 18-July 11	15	
Illinois—Chicago	July 11-18	1	
Illinois—Danville	July 11-18	1	
Indiana—Indianapolis	July 11-18	1	
Louisiana—New Orleans	July 11-18	3	
Massachusetts—Fall River	July 11-18	9	
Michigan—Detroit	July 11-18	3	
Michigan—Port Huron	July 11-18	2	
Mississippi—Natchez	July 4-11	1	
Missouri—St. Louis	July 4-11	6	
Nebraska—South Omaha	June 13-30	6	
New Hampshire—Manchester	July 11-18	1	
Pennsylvania—Pittsburgh	July 14-21	1	
Pennsylvania—Philadelphia	July 11-18	24	14
Pennsylvania—Pittsburgh	July 11-18	29	8
Pennsylvania—Norristown	July 11-18	1	
Ohio—Cleveland	July 10-17	4	
Ohio—Cleveland	July 11-18	1	
South Carolina—Charleston	July 11-18	6	2
Wisconsin—Milwaukee	July 11-18	2	

Smallpox—Foreign.

Austria-Hungary—Prague	June 20-July 4	5	
Belgium—Antwerp	June 27-July 4	7	4
Belgium—Brussels	June 27-July 4	5	

Belgium—Ghent	June 20-July 4	3	
Canada—Winnipeg	July 11-18	1	
China—Hongkong	May 23-30	1	
China—Shanghai	June 6-13	1	
Columbia—Bocas del Toro	June 30-July 7	2	1
Great Britain—Birmingham	July 4-11	1	
Great Britain—Dublin	June 27-July 4	9	1
Great Britain—Leeds	July 4-11	7	1
Great Britain—Liverpool	To July 11	44	3
Great Britain—London	July 4-11	4	
Great Britain—Manchester	June 27-July 4	9	
Gr. Britain—Newcastle-on-Tyne	June 27-July 4	1	
Great Britain—Nottingham	June 27-July 4	2	
India—Bombay	June 16-23	21	
India—Calcutta	July 13-20	4	
India—Madras	July 13-19	1	
Japan—Formosa	Apr. 1-30	5	
Japan—Formosa	May 1-31	1	
Mexico—City of Mexico	June 28-July 5	3	
Russia—Moscow	June 20-27	3	
Russia—Riga	Apr. 1-30	28	
Russia—St. Petersburg	June 27-July 4	18	1
Russia—Warsaw	June 13-27	6	
Spain—Barcelona	June 20-July 4	1	
Turkey—Smyrna	May 24-June 14	3	

Smallpox—Insular.

Philippines—Manila	May 16-June 13	13	9
<i>Yellow Fever.</i>			
Columbia—Panama	July 6-13	3	1
Costa Rica—Limon	July 2-9	3	2
Mexico—Cardenas	July 10	One death imported from Tampico.	

Mexico—Coatzacoaloos	June 27-July 4	2	4
Mexico—Merida	July 12	Present.	
Mexico—Progreso	July 12	Present.	
Mexico—Tampico	June 27-July 11	61	
Mexico—Vera Cruz	June 27-July 11	64	21

Cholera—Insular.

Philippines—Manila	May 16-June 13	127	12
Philippines—Provinces	May 16-June 13	463	1,718

Cholera—Foreign.

India—Calcutta	June 13-20	sporadic.	34
Straits Settlements—Singapore	May 30-June 6	1	
Turkey in Asia—Beytarie	June 6-13	26	23
Turkey in Asia—Kara	June 8-13	13	

Plague—Insular.

Hawaii—Honolulu	June 24	1	
Hawaii—Honolulu	June 25	1	
Philippines—Manila	May 16-June 13	19	19

Plague—Foreign.

Africa—Cape Colony	May 17-30	19	
Africa—Natal	May 10-16	5	
China—Amoy	May 8-June 13	525	
India—Bombay	June 16-23	92	
India—Calcutta	June 13-20	31	
Mauritius	June 11-18	2	

Marriages and Deaths.

Married.

KENNELLY GRICE.—In Boston, Massachusetts, on Wednesday, July 22d, Professor Arthur Edward Kennelly and Dr. Julia Grice.

Died.

BUTLER.—In Winchester, Virginia, on Wednesday, July 8th, Dr. Charles T. V. S. Butler, in the fifty-second year of his age.

COLLINS.—In Georgetown, Colorado, on Friday, July 17th, Dr. R. G. Collins, in the seventy-fifth year of his age.

EDWARDS.—In Patchogue, Long Island, on Saturday, July 25th, Dr. Lawrence Stewart Edwards, in the forty-eighth year of his age.

GATTINGER.—In Nashville, Tennessee, on Saturday, July 18th, Dr. Augustine Gattinger, in the seventy-eighth year of his age.

HEALY.—In Denver, Colorado, on Wednesday, July 15th, Dr. Lorenzo Dow Healy.

MAC LEAN.—In Detroit, Michigan, on Friday, July 24th, Dr. Donald Mac Lean, in the sixty-fourth year of his age.

MICKLE.—In Asheville, North Carolina, on Wednesday, July 22d, Dr. Herbert Mickle, in the forty-second year of his age.

PARISH.—In Bisley Lodge, Adirondack Mountains, New York, on Sunday, July 19th, Dr. William H. Parish, in the fifty-eighth year of his age.

PERINE.—In Dansville, New York, on Saturday, July 11th, Dr. Francis Marion Perine, in the seventy-second year of his age.

SEAY.—In Amelia, Virginia, on Monday, July 20th, Dr. Junius H. Seay, in the eighty-sixth year of his age.

WALKER.—In Columbus, Georgia, on Thursday, July 23d, Dr. John Evans Walker.

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AND

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Original Communications.

FURTHER OBSERVATIONS ON THE INFLUENCE OF THE ROENTGEN RAY UPON SARCOMA.*

By WILLIAM COLEY, M.D.,

NEW YORK.

In a paper read before the American Surgical Association a year ago, I reported ten cases of inoperable sarcoma treated by the x rays. This was necessarily a preliminary report, since in no case had more than six months elapsed from the beginning of the treatment. Inasmuch as the x ray treatment of malignant tumors, especially of sarcoma, is still in the experimental stage, every additional case is of interest.

From February 1, 1902, up to the present time, March 13, 1903, I have treated or had under my direction at the General Memorial Hospital, thirty-six cases of inoperable sarcoma.¹

Anatomical classification of these cases gives:

Cases.

Neck	4
Neck and rib.....	1
Parotid	3
Superior maxilla.....	3
Orbit	2
Frontal sinus.....	1
Back	2
Skin, back and face.....	1
Skin	1
Pectoral region.....	3
Femur	2
Thigh	3
Abdomen	4
Buttock	1
Buttock and ischium.....	1
Testis	2
Ribs and kidney.....	1
Ribs and hand.....	1

Pathological classification shows:

Cases.

Round-celled	21
Spindle-celled	6
Mixed-celled	2
Melanotic sarcoma.....	1
Osteosarcoma, round-celled.....	1
'Type of cell doubtful	5

In four cases, all of which were reported before this society a year ago, the tumors entirely disappeared. Yet, in every case there has since been a recurrence. Some of these cases are so very important that a brief history will be given:

CASE I. *Extensive Recurrent Round-celled Sarcoma of the Neck, Both Sides, Supraclavicular and Infraclavicular, Pectoral and Axillary Regions on One Side, and Mediastinal Glands.*—The early history of this case is given in full in the *Transactions of the American Surgical Association*, 1902. The patient, M.A., aged forty-five years, was confined to bed and in such a hopeless condition that she was not expected to live more than two months. The toxins had been used and abandoned. On February 10, 1902, at the General Memorial Hospital, I began the x ray treatment purely as an experiment. The improvement was more striking and rapid than in any other case that I have observed. The tumors steadily disappeared, and by July 1st there remained only a small nodule the size of an almond, anterior to the sternomastoid muscle. This I removed under ether, purely for pathological study, and the examination by Dr. George P. Biggs, of the New York Hospital, confirms the original diagnosis and is of great interest. The patient has regained her normal strength and spent the summer in the country. She returned on September 24th with a local recurrence, the size of an English walnut, in front of the ear in the lower portion of the parotid. Both groins were filled with multiple tumors, varying in size from a hen's egg to that of a pigeon's egg. In addition there was an intraabdominal tumor the size of two fists, smooth, globular, fairly movable, apparently originating in the ascending colon or its mesentery. There was undoubted constriction of the bowel at this point. Her condition again seemed hopeless. I resumed the x ray treatment, and in three weeks the nodule in the parotid region had entirely disappeared. At present, the groin tumors have disappeared altogether and the growth in the abdomen has decreased to about one-half its former size.

April 13, 1903: The abdominal tumor is steadily decreasing and the patient's general health is good.

* Read before the American Surgical Association, Washington, D. C., May 13, 1903.

¹ See pages 259 and 260 for tabulated abstract.

CASE II. *Small Round-Celled Sarcoma of the Pectoral Region.*—E. M., aged thirty-five years. Family history good. Had been twice operated upon for round-celled sarcoma of the right pectoral region, by Dr. Maurice H. Richardson, of Boston, microscopical examination, made by Dr. W. F. Whitney at the Massachusetts General Hospital, having proved the growth to be round-celled sarcoma. The last operation was performed in October, 1901. The disease then involved the pectoral and axillary regions so widely that it was impossible to make a complete removal. Amputation of the upper extremity was considered, but not thought advisable. The patient was referred to me by Dr. Richardson in October, 1901. The mixed toxins were administered from five to six times a week for three months, in doses sufficient to produce a marked reaction. The tumor softened, and in January, 1902, a spontaneous opening occurred with evacuation of about a pint of necrosed tumor tissue, as a result of which the growth was reduced about two-thirds. In February, 1902, the x rays plus toxins were administered, causing continued decrease in the size of the tumor. In June, 1902, the growth had entirely disappeared, and the patient returned to Massachusetts in good condition. He worked hard every day and gained twenty pounds in weight. A recent examination, January 5, 1903, showed the patient's general condition still perfect, but about two inches below the clavicle, in the pectoral region, there was a small movable nodule, the size of a hickory nut. He returned to the General Memorial Hospital on February 3, 1903, for the combined toxine and x ray treatment, with the result that by April 1st the recurrent tumor had again disappeared, his general health remaining perfect. This patient has kindly come to the meeting and I am happy to be able to give you an opportunity to make personal examinations.

CASE III. *Small, Round-Celled Sarcoma of the Back.*—W. J., aged eight years; family history good. In the latter part of August, 1901, the patient fell from the stoop striking his back. Two or three weeks later, the mother noticed a swelling over the left scapular region, which increased in size rather rapidly. It was soft and fluctuating from the start. The patient was referred to me in December, 1901, by Dr. Polhemus, of Nyack, N. Y. Physical examination at that time showed a cystic swelling the size of an orange, in the left scapular region. The skin was normal, the tumor fluctuating, situated apparently just beneath the skin and superficial fascia. With a small trocar several ounces of blood were withdrawn. The diagnosis of hæmatoma was made, and on January 12th, an incision was made under ether anæsthesia. About half a pint of fluid blood, with some clots, was evacuated. There was no evidence of any tumor at this time. The wound was closed without drainage and healed by primary union. From two to three weeks later, the tumor slowly began to reform; it was still cystic in character, but increased steadily in size until, on May 6th, it had become about one-third larger than prior to the first operation. A second operation was performed. This time, in addition to fluid blood and clots, there was a slight thickening of the walls of the cyst, which made me suspect sarcoma. A portion of this

thickened tissue was removed and examined by Dr. H. T. Brooks, professor of pathology at the Post-Graduate Hospital, who pronounced it small, round-celled sarcoma. Two weeks after the operation, before the wound had entirely healed, the x ray treatment was begun, and was continued from two to three times a week during the entire summer, with the result that by October 1st the growth had entirely disappeared. In the middle of October he was taken with an attack of scarlet fever, which confined him to the house for eight weeks, during which time he had no treatment. I did not see him again until early in December, when there was a well-marked local recurrence about the size of a hen's egg. The x ray treatment was again advised, but was carried out very irregularly, as the boy lived out of town. In January, regular treatment was begun three times a week, by Dr. Raymond, of New Rochelle, and was pushed to the point of causing a slight dermatitis. Yet, in spite of this, the growth has shown an increase rather than a decrease in size. January 20, 1903, I excised the tumor.

CASE IV. *Round-Celled Sarcoma of Femur Involving the Lower Two Thirds of Shaft.*—A. G., aged nineteen years. A swelling was first noticed in the lower portion of the femur in November, 1901. This gradually increased in size, being accompanied by loss of weight and deterioration of general health. Physical examination on February 5, 1902, showed a large tumor extending from the condyles of the left femur to the junction of the middle and upper thirds. There was a fusiform enlargement of the entire lower two-thirds of the femur. On the outer aspect of the thigh, about one inch and a half above the joint, there was a soft, fluctuating area, just covered by thin and reddened skin. There was slight impairment of the functions of the joint itself. An incision was made under ether into the fluctuating area and from two to three ounces of clear serum, similar to that which is found in cystic degeneration of sarcomatous tissue, were evacuated. A curette was passed into the cavity of the bone and typically sarcomatous tissue removed. Microscopical examination by Dr. E. K. Dunham showed it to be a round-celled sarcoma. The patient absolutely refused amputation. The x ray treatment was tried entirely as an experiment, four exposures a week being given for a month, at the end of which time the circumference of the tumor had decreased one inch. The treatment was discontinued for two weeks, during which interval the tumor had again increased nearly an inch. The treatment was resumed and at the end of another month, the circumference of the thigh over the centre of the tumor was one inch less than the original measurement. The treatment was continued the entire summer up to December, 1902. At this time the measurement of the left leg was the same as that of the right. There was still some thickening in the lower part of the femur. The old sinus, which had never healed after the exploratory incision, was enlarged under ether and carefully curetted. Examination of the tissues failed to show any trace of sarcoma. The patient gained twenty pounds, but toward the end of December again began to lose in weight.

During the following six weeks the patient lost about twelve pounds in weight and, while the leg

showed no increase in size, there was slight evening rise of temperature, suggesting possible metastases. A careful physical examination, made January 21, 1903, showed a metastatic tumor about three inches in diameter in the left pectoral region, freely movable and apparently situated between the muscle and superficial fascia. There was also a small, deeply situated mass in the lower dorsal region just to the left of the spinous processes.

February 4, 1903, the tumor in the pectoral region was removed under ether anæsthesia and was found to be a typical round-celled sarcoma.

March 13. The patient has had the combined x ray and mixed toxine treatment during the past month. He is slowly gaining weight. I do not believe, however, that there is any chance of effecting a cure.

Inasmuch as a detailed history of the other cases has just been published in the *Medical Record*, March, 1903, it is unnecessary to repeat the same here. I wish merely to refer to a few of the cases that are of special interest:

Sarcoma of the Neck and Orbit.—A most striking case of partial disappearance of an undoubted sarcoma of the neck is that of a Mr. S., aged thirty-six years, who has been under three weeks' treatment at the General Memorial Hospital for a—probably round-celled—sarcoma of the orbit, with extensive involvement of the cervical glands on both sides of the neck. Entire duration of the disease had been only eight weeks. Previous to his admission to the General Memorial Hospital, the patient



FIG. 2.—The subject of Fig. 1, after two weeks' treatment.



FIG. 1.—Round-celled sarcoma of orbit and neck. Before treatment with x rays and mixed toxins of erysipelas and Bacillus prodigiosus.

had been at the Eye and Ear Infirmary for a week, under the care of Dr. Tully. His condition was considered utterly hopeless and he was so weak that he could hardly get about the ward. In view of the very rapid progress of the disease it seemed to me that there was very little use in attempting anything in the way of treatment; but, at the urgent request of the family, I put him on the combined treatment with the toxins and the x rays. The x ray has been given four times a week and he has had very large injections of the toxins, interstitial, remote from the tumor, into the chest, taking as much as twenty-eight minims without chill—an unusually large dose. Figs. 1 and 2, from photographs taken before and two weeks after treatment show the remarkable effect upon the tumors in the neck. There is very little decrease in size of the growth in the orbit and I intend, in the near future, to enucleate the eye. His general condition has improved very markedly.

While no microscopical examination has been made in this case, there is no reasonable doubt that we have to deal with a round-celled sarcoma, primary in the orbit.

Melanotic Sarcoma of the Iliac Glands.—Mrs. N., aged thirty-seven years. Five years ago a small, primary melanotic sarcoma was removed from the skin in the region of the ankle. There was no local recurrence, but she has had five subsequent operations for recurrent growths in the femoral and iliac glands. I began the x ray treatment in February, 1902, at which time her general health had begun to suffer considerably. She had lost about twenty

pounds in weight, her complexion was sallow, and there was an inoperable mass in the iliac region. She has now had the x ray regularly from two to four times a week for more than a year. At the present time the glands are slightly smaller than they were a year ago and her general condition has distinctly improved. Her weight has increased fifteen pounds.

This is the only case of melanotic sarcoma in which I have had an opportunity of testing the x ray treatment.

The cases of spindle-celled sarcoma are, likewise, of special interest. I have used the x rays in only six cases of spindle-celled sarcoma and in two of these as a prophylactic.

The first case, a sarcoma of the superior maxilla, recurrent, which had nearly disappeared under the mixed toxines, but had again begun to increase, was given the x rays in February, 1902. The treatment was kept up for three weeks without any effect in either checking the growth of the tumor or alleviating the pain, which was severe. The second case was a spindle-celled sarcoma of the cutis, starting just above the angle of the jaw on the left side of the face.

The patient was a man forty-one years of age, with the history of having injured the palm of his left hand with a pointed stick, about two years before. A small hard spot appeared at this site several months afterwards, and was removed by a physician without examination. In the spring and early summer, 1902, he had very severe hæmorrhages from a supposed gastric ulcer. These were finally controlled, and he nearly regained his normal weight. In the early fall of 1902, a thickening or infiltration, about the size of a Lima bean, appeared in the skin over the left scapula. Almost at the same time a similar growth appeared in the skin over the angle of the jaw, as described. I first saw the case in consultation in the early part of October, and was in the beginning inclined to believe it non-malignant, but advised excision of the small tumor in the back for examination. This was pronounced spindle-celled sarcoma by the pathologist, in Brooklyn. The patient came under my care two weeks later at the General Memorial Hospital, and small doses of the toxines were administered subcutaneously in the back, and the x ray was given four times a week over the small tumor of the face. Very little change was noticed in the face, but there was no recurrence evident in the back. At the end of four weeks small doses of the toxines were given directly into the tumor of the face, although the tissue there was so very hard that it was difficult to introduce the needle, and the injections were very painful. At this time I excised a piece of the tissue from the face and had it examined by Dr. George P. Biggs, pathologist of the New York Hospital, who pronounced it a fibrosarcoma, the fibrous tissue greatly predominating over the cellular, and he believed it to be of an extremely low type of malignancy. The growths slowly decreased in size under the com-

bined treatment, and in the early part of December the patient returned to his home. The toxines were discontinued, while the x ray treatment was kept up at the office. The growth in the face increased very rapidly, extending by infiltrating the adjacent skin in every direction, producing a gradually widening area involving all the layers of the skin, not attached to the deeper parts. The combined treatment of the toxines and x rays was resumed on December 20th, and again the tumor began to slowly decrease in size. By this time it had extended downward entirely around the chin, and was beginning to ascend on the other side and had involved the skin of the neck down to a level with the upper border of the thyroid. The glands were in no way affected; the skin could be moved freely over the deeper parts. The x ray was pushed to the point of producing a burn. About January 1st he began to show evidence of generalization of sarcoma. Small nodules, similar to that in the face and back, began to appear in the scalp. The patient began to complain of very severe pains in the lower spine, which it required large doses of opium to control. He lost flesh very rapidly, and by the middle of February showed signs of jaundice, becoming greatly emaciated and weakened. The x ray treatment was abandoned and the toxines were given in very large doses by his family physician, Dr. Herbert F. Williams, of Brooklyn, as much as twenty minims of the mixed toxines solution being administered. These large doses had a very material effect in reducing the size of the external tumors, but the pain in his spine continued and his general condition gradually failed, causing death on the 12th of March, 1903.

In addition to the interest attached to this case in connection with the x ray, it is noteworthy as an example of sarcoma of the cutis—a very rare variety—and also, as showing the inability of the pathologist to give an accurate prognosis from a microscopical examination of the tissue. From the pathologist's standpoint we had to deal with an almost pure fibroma of extremely low malignancy. And yet, the clinical course was one of the most rapid that I have ever observed in any variety. The entire duration of life from the first appearance of the tumor upon the face in October, 1902, to March 12th, was less than six months.

In two other cases of spindle-celled sarcoma the treatment was given as a prophylactic.

Two of the most important cases bearing upon the value of the x ray in sarcoma are the following, in which the patients were formerly under my care, but were later treated with the x ray by other men:

CASE V.—Was that of a man aged seventy years, with small round-celled sarcoma of the neck, six times recurrent, and apparently absolutely hopeless. The x ray treatment was begun by Dr. E. R. Fiske, of Brooklyn, on December 22, 1901. A static machine was used and daily exposures of ten minutes' duration were given the first few weeks; these were gradually lengthened to 20

minutes, and the treatment was continued with occasional intervals of rest for a year. At the x ray meeting of the Academy of Medicine, March 9, 1902, I showed the patient in perfect health, and there was not the slightest suspicion of tumor or induration in the neck. The growth that had been noticed in the right axilla had also disappeared. A communication from Dr. Fiske, dated January 23, 1903, states that the patient is free from recurrence, in fine health and has gained in weight.

CASE VI.—A woman, thirty-four years of age, with spindle-celled sarcoma of the abdominal wall, extending from the symphysis pubis nearly to the ensiform cartilage; the tumor was about the size of an eight months pregnant uterus. The patient was in very bad health in January, 1902; the tumor was growing very rapidly, and was considered beyond all hope. A trial with the x rays was advised, and the patient went to New Haven,



FIG. 3.—Cancer of the breast. Before treatment with the x ray.

Conn., where she has been under the care of Dr. Clarence Skinner, a static machine being used. By September there had been some diminution in size and marked improvement in general health, so much so that she was able to resume her former work as school teacher. Since that time she has had from two to three treatments from Friday until Monday every two weeks.

On March 1, 1903, I made an examination of the patient and found that all that remained of the large tumor was a mass about the size and thickness of my hand, situated between the symphysis pubis and the umbilicus.

This patient was originally sent to me by Dr. Richardson, in April, 1901, for toxine treatment, and while there was considerable improvement at first, later the treatment had apparently no effect and growth became very rapid. This is the only case of spindle-celled sarcoma that has come under my observation in which the x ray caused marked improvement. The patient, who is a very intelligent woman, describes very accurately the phenomena connected with the disappearance of the growth, and I think her statements are worthy



FIG. 4.—The same as Fig. 3, but after three months' treatment with the x ray.

of record: The original tumor was of board-like hardness, and she states that during the treatment certain areas become moderately painful. A little later these painful areas became softer, and gradually the soft areas seemed to become absorbed, leaving areas of depression. This process continued in different parts of the tumor, slowly causing disappearance of the greater portion of it.

A comparison of the results of the x ray treatment in sarcoma and deep-seated carcinoma seems to prove that the influence of the x ray in the majority of cases is much more powerful upon sarcoma than carcinoma. I have had under treatment thus far 25 cases of carcinoma of the breast, all recurrent, inoperable cases, and in only one instance has a large tumor entirely disappeared. This case, as may be seen from Figs. 3, 4, and 5, taken from photographs, shows an extensive, ulcerated carcinoma, which has destroyed the entire right breast, and which, under about six months' treatment with the x ray completely disappeared. The patient's general health remains

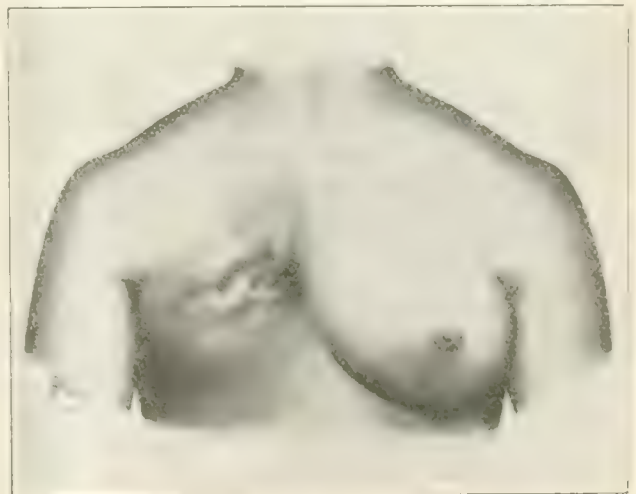


FIG. 5.—The same as Fig. 3, but after six months' treatment.

good. I do not believe, however, that the patient is cured, and if treatment were discontinued, there would probably be a speedy return of the disease.

This case is almost identically the same as that described by Miculicz in the *Beiträge für klinische Chirurgie*, Band xxxvii., S. 676. It shows that, occasionally, deep-seated carcinoma of the breast may disappear under the influence of the Röntgen ray.

THE RELATIVE MERITS OF THE TOXINES AND X RAYS IN INOPERABLE SARCOMA.

The time has been too short, and experience too limited thus far, definitely to decide this question. It is fair to say, however, that in several cases of inoperable round-celled sarcoma in which the toxins had been tried and failed, the x ray caused entire disappearance of the tumors. Yet there has been a speedy recurrence in every one of the cases.

On the other hand, in a much larger number of cases of inoperable sarcoma, the tumors have entirely disappeared under the toxins, and remained well from three to ten years after treatment. I have had twenty patients with inoperable sarcoma remain well from three to ten years after the disappearance of the tumor under the mixed toxine treatment; of these, fifteen patients were well from five to ten years.

As stated above, I had the opportunity of observing the effect of the x ray upon only six cases of spindle-celled sarcoma, and have found it to be exceedingly slight in all. Yet, it is just in this class of cases—the spindle-celled—that the result of the toxine treatment has been by far the most satisfactory, nearly 50 per cent. of the cases of inoperable, spindle-celled sarcoma having disappeared under the treatment in my own experience. In the round-celled variety, however, upon which the influence of the toxins is much less pronounced, the immediate results from the x ray treatment seem to have been the best. In one of my cases, a very large inoperable round-celled sarcoma, two thirds of the growth had disappeared under the toxine treatment, and at this point the x ray was used in addition to the toxins, with the result that the entire tumor disappeared three months later.

In deep-seated and inaccessible growths the results from the toxins will probably prove better than that from the x rays.

There is no objection to using both methods of treatment at the same time, and there is reason to believe that the combined treatment will give better results than either used alone. There are a large number of cases of inoperable sarcoma treated either with the x ray or the toxins, in which the inhibitory action is almost, but not

quite, sufficient to check the growth, and it seems but reasonable to suppose that the combined action of the x rays and toxins might be sufficient, not only to check the growth, but to cause it to disappear.

Dangers.—Besides the danger of burns, resulting either from careless application of the rays, or unusual susceptibility on the part of the patient to their influence, there is the danger of toxæmia. From too vigorous an application of the rays in large and very vascular tumors, the rapid breaking-down or tissue necrosis is followed by the absorption of so much toxins or products of degeneration, that the patient is liable quickly to develop the symptoms of toxæmia, which may easily prove fatal, as has been the case in several instances that have come to my knowledge. There is also the possible danger that in the rapid breaking-down some of the living tumor cells may be carried to remote parts of the body, causing metastases.

CONCLUSIONS.

From personal experience, as well as from a study of the cases of sarcoma treated with the x ray that have thus far been reported, I do not believe we are justified in using the method in any, save inoperable cases. An exception to this general rule might be permissible, perhaps, in the cases of sarcoma of the extremities in which operation would mean amputation. I believe that in such cases a brief course of the combined x ray and toxine treatment would be perfectly justifiable, and might result in the saving of the limb.

In support of this view I would cite a case of recurrent spindle-celled sarcoma of the tibia, in which the diagnosis had been confirmed by careful microscopical examination, made by Dr. John Caven, professor of pathology, of the University of Toronto. Six years ago I administered the toxins for several weeks at the General Memorial Hospital, with the result that the growth entirely disappeared and the patient has continued his occupation as a farmer ever since. I heard from him a few weeks ago, and he is still in perfect health. The only operation to be considered in this case would have been amputation above the knee.

Thus far we have proved that the x rays have a very decided inhibitory action upon the various forms of sarcoma, in certain cases, sufficient to cause the entire disappearance of inoperable tumors. Yet there is a strong tendency to local or general recurrence, and in no instance has sufficient time elapsed to warrant us in considering the patient cured.

Good results cannot reasonably be looked for without prolonged treatment extending over many months, and in some cases years.

5 PARK AVENUE.

Case No.	Age	Sex	Locality.	Type of sarcoma.	Duration of treatment.	Result.
1	42	F	Neck, pectoral region, axilla, groin and abdomen.....	Round celled, recurrent..	Treatment begun February, 1902. Still under treatment, May 11, 1903.	Entire disappearance of tumor in neck and axilla; four months in groin and abdomen appeared in groin; decreasing in abdomen.
2	8	M.	Back	Round celled, recurrent..	Four months; begun March, 1902	Reappeared, returned in the neck, removed and x ray given, still well May, 1903.
3	19	M.	Femur	Round celled.....	x ray begun February, 1902, continued May 11, 1903; x ray and toxines last three months	Tumor in femur apparently cured; metastasis in pectoral, lumbar, and iliac regions.
4	42	M	Femur (stump) ..	Round celled.....	x ray and toxines three weeks.	Decrease in size of tumor two inches; general health very bad; sent home.
5	54	F	Back	Round celled and spindle celled	x ray and toxines two to three months; treatment begun November, 1902	Relapse April, 1903; under treatment at present; improving.
6	25	F	Thigh	Round celled.....	x ray and toxines for one month	The disease was apparently not in the slightest way influenced by the treatment.
7	38	M.	Pectoral region..	Round celled.....	x ray and toxines four months, from February to June, 1902.....	Entire disappearance of tumor six months after treatment, continued for six weeks with the result that there is now no trace of the disease left.
8	35	F	Iliac glands.....	Melanotic recurrent.....	x ray, one year.....	At first growth was merely held in check; of late there is some improvement.
9	63	M.	Thigh	Round celled (?).....	x ray, four months, by other physician; resumed by me for two weeks; stopped ..	Great decrease in size; one month after cessation of treatment, began to increase again; then effect of renewed treatment remarkable, but with rapid disappearance of tumor, man's general health failed and continued to fail after cessation of treatment; death January 5, 1903.
10	26	M.	Thigh	Round celled.....	x ray and toxines three to four months, October, 1901, to September, 1902.....	Apparent retardation of growth for a time; later metastases in lung; death January, 1903.
11	46	M.	Superior maxilla.	Spindle celled.....	x ray and toxines three weeks.	Without effect upon either pain or growth.
12	42	M.	Orbit	Round celled, recurrent..	Toxines and x ray, four months	Growth apparently held in check at first, but later seemed to have no effect.
13	28	M.	Neck	Round celled (?).....	x ray two months.....	No improvement.
14	60	F	Ribs and kidney.....	Spindle celled.....	Toxines and x ray two months	Marked improvement; still under treatment.
15	44	F	Parotid	Round celled, recurrent..	x ray and toxines five months	No improvement.
16	51	M.	Testis	Round celled, recurrent..	x ray and toxines two months	Improvement; was obliged to leave hospital for disobeying rules.
17	15	F.	Neck	Round celled.....	x ray four months as prophylactic	There has been no return of the disease thus far.
18	60	F.	Frontal sinus...	Round celled.....	x ray and toxines six months	Tumor decreased in size; very marked improvement in general health; still under treatment.
19	37	M.	Neck	Round celled, recurrent..	x ray four weeks.....	No improvement.
20	45	M	Neck and rib....	(?).....	x ray and toxines two months.	Slight improvement.
21	35	F.	Parotid	(?).....	x ray two months.....	No improvement.
22	44	M.	Chest wall.....	Spindle celled.....	x ray, prophylactic only, six treatments	Still well.
23	25	M.	Parotid	Round celled, recurrent..	x ray and toxines three weeks.	No effect; death five months from first appearance of tumor.
24	26	M.	Ribs and hand...	Round celled, recurrent..	x ray and toxines two months.	Very marked decrease in size of both tumors; still improving.
25	28	M.	Buttock	Round celled.....	x ray and toxines two months.	Improving.
26	49	F	Sacrum and pelvis	Osteosarcoma, round celled	x ray three months.....	No improvement.
27	32	M.	Orbit and neck..	Round celled (?).....	x ray three weeks	Very marked improvement; still under treatment; tumors on one side of neck entirely gone.
28	55	M.	Sup. maxilla....	Round celled.....	x ray six weeks	No improvement.
29	56	F.	Pectoral region..	Spindle celled.....	x ray six weeks, January, 1903; prophylactic.	Still well, May 11, 1903.
30	31	F.	Ovary and abdomen	Spindle celled.....	Patient so weak only three or four treatments given.	No improvement.

TABLE OF SARCOMA CASES TREATED BY X RAY, FEBRUARY, 1902, TO MAY 11, 1903.

Case No.	Age	Sex	Locality	Type of sarcoma.	Duration of treatment.	Result.
31	24	M	Upper jaw.....	Round celled.....	x ray and toxines four months.	Improvement at first; later no effect.
32	41	M	Skin, back and face	Multiple spindle celled..	x ray and toxines four months.	Improvement at first; later no effect; died March, 1903.
33		M.	Buttock and ischium	Round celled.....	x ray two months.....	No improvement.
34	45	M.	Skin	Mixed celled, multiple, recurrent	Toxines and x ray for six weeks	Slight improvement at first.
35	42	M	Intestine	Round celled sarcoma...	x ray six weeks.....	No improvement.
36	42	M.	Testis	Round celled.....	x ray and toxines three months	No improvement.

Table of Sarcoma Cases for Dr. Coley's article (continued).

SOME FURTHER REMARKS AND
QUERIES CONCERNING THE INFLUENCE
OF ALTITUDE UPON HEART
DISEASE.*

By ROBERT H. BABCOCK, M.D.,
CHICAGO.

At the New York meeting of this association, in 1899, I presented nine cases of cardiac disease upon which the effect of high altitude had been noted. In the consideration of the effect which had been exerted upon these cases, I advanced the theory that it was to be attributed to the acceleration of circulation incident, as I believed, to lowered atmospheric pressure. Among my conclusions was one to the effect that stenosis of the mitral and aortic orifices contraindicated, theoretically at least, residence at a high altitude.

In his discussion of my paper, Dr. Sewell very pertinently pointed out that he had under observation at that time a woman with pure mitral constriction, whom I had previously treated in Chicago, and who was able to bear the altitude of Denver apparently without ill effect. At Cripple Creek, which was more than twice as high as Denver, she was short of breath. Nevertheless, as Cripple Creek was hilly and the patient did considerable walking, it was presumable that her dyspnoea was owing, not so much to the altitude, as to the fact of exercise at that height on uneven ground.

This observation was a contradiction of my assumption regarding the inability of patients with mitral narrowing to endure elevated climates. During the past four years I have observed two other instances of pure and uncomplicated obstruction at the mitral orifice, both in women, who declare they feel far better in the mountains of Colorado than at Chicago. One of them suffers from asthmatic breathing at her Chicago home, whereas she is free from it in the Rockies. It is very possible, therefore, that her comfort in Colorado may be due to her immunity from her asthma, but one may ask, Is not this immunity due to some, as yet not under-

stood, influence on her circulation? Moreover, when in the mountains, even at a height of 10,000 feet, she takes very little active exercise, whereas at home she does considerable walking. So that this fact must also be taken into consideration in its bearing on her greater comfort in Colorado.

The other lady, who likewise declares she feels well in the Rocky Mountains, experiences pronounced lassitude in Chicago, while in Colorado she feels stimulated and energetic. She does not remain especially inactive, therefore, at that altitude as does the former lady.

In marked contrast to these, are two other individuals whom I have recently observed. Neither has valvular disease, so far as can be determined. One is a lady, aged fifty-three years, who suffered much from menorrhagia during a number of years at the time of the menopause and became anæmic, but did not, so far as could be learned, exhibit signs of cardiac inadequacy. Last summer she went to Colorado Springs to remain for a number of weeks, but at the end of forty-eight hours was so out of breath and oppressed as to be compelled to consult a physician. Dr. Swan saw her and, as she stated to me, found the action of the heart so disordered and the organ so dilated, that he advised her immediate return home. His advice was acted upon, and soon after reaching a lower level her symptoms disappeared.

Nevertheless, a subsequent cardiac break-down occurred, from just what cause could not be ascertained, but apparently in consequence of exertion which, although not in itself excessive, was yet relatively too great for her heart. It was because of two attacks of acute pulmonary œdema that I was asked to see her in consultation. The condition, as I saw it, was a considerable degree of cardiac dilatation, especially of the right heart, with a strikingly small, weak pulse, but without turgescence of the superficial veins other than the external jugulars. It seemed as if the stasis was chiefly in the large distensible veins of the abdomen, including those of the liver.

The second case of this latter group is that of a

* Read before the Climatological Association, at Washington, May 12, 1903.

man aged thirty-three years, who has lived in Montana at an altitude of 4,000 to 6,000 feet for the past eighteen years, where he has been engaged in mining. The symptom for which he was sent to me was a dull præcordial pain which, together with rapid action of the heart, was noticed for the first time fifteen years ago after he had done much climbing of ladders in the mines. His recovery from these symptoms was followed by an immunity lasting fifteen years. Last fall, however, his præcordial pain had returned about a week after a pretty stiff climb over the mountains. When I examined him the first time, it was some weeks after he had been in Chicago, and my examination was not very fruitful. Nevertheless, I came to the conclusion that there was a slight degree of cardiac dilatation, and hence expressed the opinion that he had suffered a cardiac overstrain.

Very recently he returned with the statement that, upon going back home and resuming his active habits, he had again felt the dull præcordial pain. He then left that altitude, and upon reaching Missouri lost his annoying symptom. This time, it was quite apparent that the transverse diameter of the heart was much too great, and that the right ventricle was dilated, as shown by percussion and an epigastric pulsation. But the observation that chiefly interested me was his low arterial pressure. His blood pressure, as registered by Gaertner's tonometer, was 85 mm. of mercury, whereas normally it is between 110 and 130. The pulse-rate, even allowing for his nervousness, was much too rapid, and the low blood pressure was further evinced by a feeble aortic second tone. The radials were only slightly stiff. I saw no reason in that fact, however, to conclude that there was sclerosis of the aorta and chronic myocarditis. I still look upon the condition as one of cardiac overstrain incident to exertion at an altitude, and not to the altitude *per se*, since he must have become accustomed to the lowered atmospheric pressure after a residence of eighteen years.

Now, before putting forth any queries or attempting to account for the effects in these four cases, let me briefly refer to a statement made to me by the late Dr. C. W. Purdy, of Chicago, relative to the danger of high altitude in some cases of chronic interstitial nephritis. Purdy said that he had known more than one patient with renal disease develop alarming uræmic symptoms after a few days in Denver, although in Chicago their kidneys had been equal to the work put upon them. He had consequently come to regard a trip to the Rocky Mountains as extremely hazardous for chronic nephritics.

With the foregoing briefly narrated facts before us, can any one offer an explanation of the differing effects experienced in the cases given? Are

they all explicable on the same hypothesis? For my part, I frankly confess to being up a stump, and yet I incline to the view that different factors were at work. Let us take the effects upon chronic nephritis first. In this disease there is high blood pressure which, however brought about, is nevertheless salutary, since without it in the renal artery urinary excretion would lessen and dangerous symptoms would develop. Since, at a high altitude, blood pressure is diminished, are uræmic symptoms therefore to be attributed to a fall of arterial pressure? Or are we to look for these effects in an increase of metabolic activity, in consequence of which the damaged kidneys become unequal to the demands put upon them? We cannot hold, I think, that the function of the skin is less active in the dry air of the mountains. On the contrary, although the skin feels dry, evaporation is really more active than in the damper atmosphere of lower regions; and if such is the case, then the work of the kidneys should be lessened. It seems to me that the explanation must be sought, either in diminution of blood pressure in the renal artery, or in a more active metabolism. Can any of our Colorado friends tell us whether, as a matter of fact, the mean blood pressure of individuals living at Denver or higher is less than among residents of the plains. If not, a series of observations would be of great scientific interest and value. Since uræmic manifestations are said to be experienced soon after chronic nephritics reach that altitude, may it not be that dangerous symptoms occur because time has not been allowed for the circulatory system to adjust itself to the altered barometric conditions, and that this fact, if fact it is, acts in conjunction with increased metabolism? I confess I incline to this latter explanation, and lay more stress upon metabolism than upon alteration in blood pressure. If such is the case, it does not help us to understand the cases narrated.

For instance, let us turn to the case of the miner who has resided at a more or less considerable elevation for the past eighteen years. His initial symptoms developed at Butte, Montana, at an altitude of 4,000 feet, after he had done much ladder climbing. They were tachycardia and præcordial pain. Then, after their cessation, followed a respite of fifteen years, when they recurred about a week after he had climbed a mountain on foot and for a part of the way had carried a grip. The maximum altitude was 8,000 feet at this time.

Although his blood pressure was low soon after his descent from the altitude of Montana to the low level of Missouri, I yet believe that, in this instance, his symptoms were a direct result of heart strain, and not of the lowered atmospheric pressure *per se*. Cardiac strain appears to be easily induced in the

rarefied air of the mountains, but had this man not subjected his heart to strain, as I believe, the altitude itself would not have affected him, and in reality did not affect him. This case may be dismissed, therefore, except in so far as it bears on the subject of cardiac strain in the mountains.

Let us turn now to the middle aged woman who got up a dilatation of the right ventricle at the altitude of Colorado Springs. She is positive that she did not commit any conscious overexertion, and yet she did not refrain from physical effort before becoming accustomed to the altitude. Was this also a condition of cardiac strain, merely? If so, why did her heart quiet down upon her reaching the plains?

I am at a loss to account for her experience, unless possibly upon the hypothesis that when she went to Colorado she already had an abnormally low blood pressure, and that the injurious effects of habitually low arterial pressure were intensified in the light air of the mountains. Such an explanation seems to me not unreasonable and hence I should greatly like an expression of opinion on this point.

Granting, for the sake of argument, that habitually low blood pressure was the cause of this woman's unfortunate experience, can it have any bearing upon my two cases of mitral stenosis? In the case of my patient with this form of disease, whom Dr. Sewell observed, the sphygmograph had shown a small, tense, radial pulse. Now, I believe it is stated that some patients with mitral stenosis display a tense pulse of capillary origin, the constriction of the capillaries being itself due to the state of the splanchnic nerves. If such is the case, does it throw any light on the ability of some of these patients to endure and even improve at an altitude? Or did these patients feel better simply because they were less active than when at home?

Since this paper was begun I have seen another woman with what I take to be a mitral narrowing with a patent foramen ovale of congenital origin, whose history is interesting in its relation to altitude in cardiopaths. Prior to six years ago she had not experienced symptoms of cardiac incompetence. At that time she visited in California, going into the mountains, where she indulged in much equestrian and other exercise without, she asserts, any discomfort. Upon going to San Francisco she promptly had a severe attack of what was thought to have been an acute pulmonary oedema. Since that time she has been subject to frequent recurrences of her so-called asthma, in consequence, seemingly, of exertion, although other factors also appear to influence its production. Two years ago she was in Asheville, N. C., and there was able to ride horseback, which she says she cannot do at Chicago.

The physical signs of her cardiac disease do not need to be stated, but it may be said that, at the time of my first examination, her blood pressure, as registered by Gaertner's tonometer, was 147 mm. of mercury. This was not very high, and yet was higher than normal, which is from 110 to 130 mm. Such high arterial pressure was not maintained, however; for, upon being given a cathartic and put to bed, it fell to 125 mm. of mercury.

Now, what may we assume from this case? Was hers a condition of overstrain in the mountains, which declared itself only after she reached sea level? Or was she able to exercise in the California mountains, and again in Asheville, and not at sea level, because she had habitually high blood pressure? And if so, why had she not experienced difficulty prior to her California mishap? Why can she ride in Asheville at an altitude of only 2,500 feet and not in Chicago? At first I inclined to the belief that an abnormally high arterial pressure had something to do with it, but I now incline to the view that her attacks of dyspnoea are of a mixed type. That is, although they appear to be a cardiac, rather than a spasmodic asthma, there is, in addition, some other factor at work which is not active in the mountains. It required a condition of cardiac overstrain to develop her asthmatic tendency, and that having been once established, other influences, whatever they may be, are now capable of initiating an attack. Like the other female, she is well in the mountains, or rather was well in Asheville, simply because these factors were not active.

Are we to seek the explanation of one person's ability to endure altitude and another's inability to endure it, in conditions of blood pressure? Or must we conclude that, as stated by Regnard, any one can reside at an altitude of a mile or so after he has once become accustomed to it, *i.e.*, acclimated?

It seems to me, it would be well if our Colorado colleagues would make it a rule to record the blood pressure in newcomers, and especially in those exhibiting signs of cardiac distress, and compare these with observations made after the same persons had grown accustomed to the altitude.

A consideration which seems to argue against a person's tolerance or intolerance of moderate altitude being due to the blood pressure, lies in the generally accepted statement that the pulse of the consumptive is one of low tension, and yet most of such patients are able to endure residence in Colorado, at an elevation of a mile, without serious cardiac embarrassment. Is this observation correct? I should like to ask. If a certain number of tuberculous subjects experience cardiac discomfort in Colorado, are they, I inquire, those in whom the pulse tension is noticeably low?

As already stated, I am at sea in this matter, and

am growing to believe that if a cardiopath will remain inactive until accustomed to the altitude, he can visit the mountains and journey to California with immunity from symptoms. The danger of travel and residence at an altitude appears to be really greater in the case of apparently healthy hearts, since such individuals are likely to overdo, and therefore get up a condition of cardiac overstrain, and it seems that in all cases it is not so much the altitude itself which is to be feared, as it is the ease with which the heart may be overstrained in the mountains. This strain is itself not due so much to the altitude, as it is to the fact that, in the higher regions, the surface of the ground is uneven and hilly. In short, given a rarefied atmosphere with hills to surmount, the heart becomes more easily overtaxed than at the sea level, and hence signs of cardiac embarrassment, and even incompetence, develop, which would not appear at home.

466 DEARBORN AVENUE.

THE PSYCHICAL RELATIONS OF TUBERCULOSIS IN FACT AND FICTION.

By G. A. DE SANTOS, SAXE, M. D.,

NEW YORK.

(Concluded from page 215.)

THE RELATION OF TUBERCULOSIS TO INSANITY.

I have already referred in a previous paragraph to the fact that the same causes which produce changes in the mental make-up of the tuberculous patient may also induce insanity in its various forms. The connection between insanity and tuberculosis was first brought into relief, so far as I know, by Richard Mead (1), who in his *Medical Works*, published in 1767, reported the first case of tuberculosis insanity on record. Then followed reports of cases and articles on various clinical features of insanity occurring in tuberculous persons, with suggestions as to the ætiological connection between the two conditions. Among those who wrote on this subject in the early part of the nineteenth century were Esquirol, Georget, Burrows and Ellis, Friedreich, Schroeder van der Kolk, and Skae (2), all of whom are cited by Regis (6). Finally, Clouston (20) crystallized the idea that had been gradually shaping itself and, in his treatise on mental diseases (3), makes a subdivision "Phthisical Insanity," which he describes as a separate type, giving a schematic analysis of the clinical characters of this form of mental disease. Since the work of Clouston first appeared (1863), the accumulation of clinical reports has shown that almost any form of insanity may occur in tuberculosis, and that a dogmatic classification of these cases as a separate type cannot be successful. Morel (4), who was a keen observer, recognized the

variety of forms which "tuberculous insanity" might take, and noted that the type of melancholia was more often found in the first stages of tuberculosis, while the type of mania was more frequently seen in the later stages. Bernheim (7), and other modern writers on this subject report a great variety of types of insanity arising in tuberculous persons.

There is ample evidence in support of the theory, which is now held by some of the foremost authorities in psychiatry, namely, that tuberculosis may contribute to the development of insanity, at least in individuals who are "predisposed neuropathically" through the existence in their ancestry, or in their own bodies, of the effects of degeneration. I cannot enter into the analysis of this evidence here, because I am not concerned with the insanity of tuberculosis, except incidentally in the unfolding of my general subject. Statistics of post-mortem findings in insane asylums (Crichton Browne (36), Dagonet (37)) show that tuberculosis is exceedingly frequent in the insane. The frequency of tuberculosis as it appears in the clinical records of insane asylums is also far greater (five times greater, Hagen (38)) in inmates of insane asylums than in persons who have sane minds; and, conversely, the occurrence of insanity among tuberculous individuals in sanatoria, hospitals, etc., is more frequent than among any other class of patients in the same institutions. While there must be some doubts as to the exact connection between the two conditions until we know more about the pathological basis of insanity, the toxic theory, already referred to, covers the question of ætiological relationship between insanity and tuberculosis, especially with the ascendance of the idea that has been gaining ground of late years, that all forms of insanity have some form of intoxication at their basis.

THE RELATION OF TUBERCULOSIS TO CRIME.

My attention was first called to this phase of my theme by a personal communication from my friend, Dr. Antonio Fanoni, who has devoted many years to the clinical and experimental study of tuberculosis. The facts in question were later reported by Dr. Fanoni (13) in a most interesting article entitled *What Shall We Do With The Consumptive?* He found that a number of tuberculous patients, among a series that he had under observation, deliberately disobeyed his injunctions, and spat upon the floor of the room where they were all receiving treatment, instead of using the receptacles provided. Called one by one into the consultation room, each of these patients was told privately that he never would be cured of his disease if he continued to spit upon the floor, as he would inhale the dried germs which he emitted.

Several of these patients, on being told this, grew pale and agitated, and then thoughtful. One young man confessed on that occasion that he had not paid much attention at home to Dr. Fanoni's instructions, as he had a young wife, whom he did not wish to survive him, but preferred her to die with him, rather than to leave her without any one to take care of her. Another patient said that "like Samson, when he pulled down the House of the Philistines, he wanted the world to die with him."

To me this account shows the germination of a homicidal tendency, which is the resultant of the psychical defects that I have outlined in my analysis of the average consumptive's mental peculiarities. Here, psychasthenia, the loss of self-control, and the rise of brute selfishness have combined to distort the clearness of ethical perception.

It is but a step from the cases related by Dr. Fanoni to that reported by Gilbert (39) who tells of a young physician who had contracted tuberculosis, and who compelled his young wife to drink a glass of champagne into which he had expectorated. The result was that she died of intestinal tuberculosis, soon after her husband had succumbed. Both she and her husband had been under Gilbert's constant observation, so there can be no doubt as to the authenticity of the case.

But this is not all. Cases of homicide by direct violence have been reported by a number of medical writers, the accused being tuberculous patients, the victims physicians or attendants. Thus, Bernheim reports the case of a patient in a sanatorium, at Leysin, who shot a physician who had been in almost constant attendance upon him, and with whom his relations had been most cordial until a sudden fit of anger seized the patient. The latter was afterwards declared insane.

Another case is that of a tuberculous patient in the Santo Spirito Hospital, who had been discharged improved and had applied for readmission some months later, but was refused because he could not present some paper that was required by law. This man killed Dr. Banti, the physician in charge, with a stiletto. He was declared insane at the trial.

In the same hospital a tuberculous patient killed a Sister of Charity by stabbing her while she was leaning over him in order to arrange his bedclothes. He developed acute mania later on.

I could go on citing a number of other cases of a similar character, but I think that I have said enough to show that there is some basis for the theory as to a connection between tuberculosis and crime. Statistics gathered by a number of authors, e. g., by Chartier (10) and by Skulteki (11), as regards the number of tuberculous persons among

those convicted of crime, amply support this view.

If tuberculosis produces a tendency to crime, then the question arises, whether the presence of this disease diminishes the responsibility of a criminal, just as insanity is now acknowledged to do. I believe this question was first brought up by Baccelli, who, in a letter to the Duchess Ravaschieri, used the phrase, "*delle giovani menti pervertiti dalla tubercolosi*," referring to the perverting influence of tuberculosis on the young mind, and who thus seems to have given a keynote for the further study of this subject. Bonardi and Baccelli (40) formally announced for the first time the principle that the responsibility of a tuberculous criminal should be restricted in law, and that clemency should be exercised in passing sentence upon tuberculous subjects, even if they could not be proved to have been insane at the time of the crime. Since then the medicolegal aspects of this subject have been thoroughly studied by Mircoli (8), Chartier (10), Skulteki (11), and Cioffi (12). All these authors agree in regarding the criminal tendency of the consumptive as a result of the same intoxication by the toxins of the tubercle bacillus that leads to insanity in some cases of phthisis. They agree also in considering tuberculous persons who are predisposed to crime in virtue of psychic and somatic degeneration, as particularly apt to exhibit these tendencies. While the subject is still in its infancy, and requires further investigation, and while I do not for a moment claim competence to speak of it from the legal viewpoint, or even from the ethical, I cannot help admiring the rather Utopian sentiment which Mircoli (8) put so well in the beautiful language of his country, "*L'uomo e responsabile del bene che fa; del male lo sono le deviazioni morbose del suo organismo.*"⁵ Here is the biologic law upon which scientific criminology should be based!

THE EUTHANASIA OF TUBERCULOSIS.

Finally, we must consider the last mental traits that consumptives exhibit just before death—the delusion of improvement, or even of cure, which so often characterizes their last days. In the writings of the older authors this peculiarity of the consumptive has been the subject of much and varied comment, and some have looked upon it as a supernatural phenomenon. To-day it finds its explanation on purely physical grounds; the poisoning of the nervous system in the last stages of consumption is so complete, that all reflexes are diminished and some are abolished. The patient's sense of pain is dulled; he no longer coughs; his chest

⁵ "Man is responsible for the good that he does; for the evil, the responsibility lies with the morbid deviations of his organism."

feels free; his limbs no longer ache, and so it is not astonishing to find him lying peacefully, calmly, telling you that he is much better, and has great hopes. In some patients this feeling of well-being before death raises the spirits to hilarity, so that Shakespeare has well said:

How oft when men are at the point of death
Have they been merry: which their keepers call
A lightning before death.

His calm is only the calm of exhaustion, and his hope, alas! is false, for in a few hours, at most in a day or two, he will be beyond all hope.

I have endeavored, in rough outlines, to present the mental characteristics of the consumptive as they are viewed by the physician. I do not pretend that my analysis is complete, or that every consumptive is bound to exhibit the specific traits that I have discussed, much less that every consumptive is a mental degenerate and a candidate for the jail or the lunatic asylum. I have simply tried to show the channels in which run the mental peculiarities that are the effects of this disease upon the mind. The variations in an individual case are always referable to the patient's mentality, and to his temperament as they showed themselves before the disease set in, as well as to the presence or absence of inherited traits of degeneration.

If I have shown that the psychological study of the consumptive offers an attractive field for investigation and if I have suggested the possibilities of this subject in its bearing to clinical medicine, to psychiatry, and to criminology, my task has been accomplished.⁶

SUMMARY AND CONCLUSIONS.

1. The consumptive exhibits in the average case, traits of mind and of temperament that have been made use of by some of the best writers of fiction in describing the characters of tuberculous persons—traits that are well worth studying, inasmuch as they are directly connected with the disease, although not specifically characteristic of tuberculosis.

2. The psychical and temperamental traits of the average consumptive have not been studied by medical men with the attention which they deserve.

3. The only probable theory thus far advanced as to the causes of the mental and moral degeneration of the consumptive, leading even to criminal tendencies, is that of toxic poisoning of the central nervous system by the products of the tubercle bacillus, resulting in neurasthenia, psychasthenia, hysteria, and insanity.

4. The fundamental factors in the psychical make-up of the typical consumptive are the loss of

self-control, the rise of brute selfishness, the increase of susceptibility to suggestion, to emotion, and to nervous irritation, and the tendency to rapid nervous and psychical fatigue.

5. There is no tangible proof that the sexual functions are exalted in tuberculosis, but in all probability the sexual irritability is raised in the early stages of the disease and lowered coincidentally with the lowering of vitality in the later stages.

6. In all probability, there is a connection between tuberculosis and insanity, the tuberculous toxine contributing, with other factors, in persons rendered susceptible by psychical and somatic degeneration, to the derangement of the mind. Any form of insanity may be found in tuberculous persons, and the term "tuberculous insanity" should not be used to designate a type of insanity peculiar to tuberculosis.

7. The criminal tendencies of consumptives have been observed with sufficient frequency to justify an investigation into the medicolegal question of restricting the responsibility of a criminal on the ground that he is tuberculous. Mental and physical degeneration, together with the tuberculous intoxication already referred to, are the chief factors in the make-up of the tuberculous criminal.

8. The euthanasia of consumptives, which has excited speculation, is to be explained on purely physical grounds, the changes in the nervous system being so marked at the time of approaching dissolution as to efface the patient's suffering, and render his death easy.

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⁶ I take great pleasure in acknowledging here my indebtedness to Dr. Karl von Ruck, director of the Winyah Sanitarium, for many helpful hints and for the use of his library, during my visit to Asheville, N. C., in April, 1903.

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73 EAST NINETIETH STREET.

THE CAUSE AND SPECIFIC TREATMENT OF HAY FEVER; A PRELIMINARY REPORT ON THE USES OF THE TOXINES AND ANTITOXINES OF PROFESSOR DUNBAR.

BY EMIL MAYER, M. D.

NEW YORK.

Early in April of this year, Professor Dunbar, of the Hygienic Institute at Hamburg, Germany, sent me two of his reprinted articles on the cause and specific treatment of hay fever. He also wrote me that he was desirous of having an investigation made on the action of his toxines and antitoxines on the subject of hay fever in this country. The brochures dealt very exhaustively with the subject, and the conclusion reached was that the hay fever poison was a soluble toxine found in the starch bodies of the *Graminaceæ*. This poison (pollen toxine), injected at a remote time from the usual attack into the arm of a confrère who was subject to hay fever, produced all the symptoms of hay fever within fifteen minutes, which lasted with increasing severity for some time, and four days elapsed before all symptoms disappeared.

A control person, not subject to hay fever, injected at the same time, had no symptoms whatever. Subsequent experiments went to show that a small amount of the toxine applied to the conjunctival or nasal mucous membrane of a hay fever subject was promptly followed by evidences of irritation, while the non-susceptible had no reaction. He was thus enabled to determine the toxicity and non-toxicity of the various pollens. By injecting the toxine from the pollen of rye in animals a serum was produced.

In response to my letter indicating my willingness to undertake the investigation, I received on May 16, 1903, a package containing solutions and droppers accurately fitting to small test tubes.

The solutions were: 1. Rye pollen toxine, 1:1,000. 2. Antitoxine with $\frac{1}{4}$ per cent. of carbolic acid. 3. Normal horse serum with $\frac{1}{4}$ per cent. of carbolic acid.

The droppers and tubes were carefully steril-

ized and placed in properly labeled glasses and kept for the same purpose always.

The cases experimented on by myself were divided into two groups: *a.* Those suffering from periodic attacks in May, June, and July, and called spring cases. *b.* Those suffering in August and September, termed autumnal.

In each instance a person non-susceptible to hay fever was similarly treated, and all received the following: One drop of a mixture of equal parts of normal horse serum and of pollen toxine was dropped in one eye, while one drop of a mixture of equal parts of antitoxine and pollen toxine was dropped in the other.

Where reaction occurred there was much redness followed by burning, itching, and finally slight oedema in the eye in which toxine and normal serum were placed, while the other eye remained normal.

The symptoms appeared promptly, and when the burning became intolerable one drop of the antitoxine relieved it immediately.

This reaction was the same as had been noted by Professor Dunbar and corroborated to a great extent by Sir Felix Semon in London and Dr. McBride in Edinburgh.

My report to Professor Dunbar, on May 29th, was that I had exhausted the contents of the phials sent me, that more would be required for further investigation; that the result of experiments thus far made was that the reaction had been all that he had described in practically all of the spring cases; that there was an absolute failure to react in all the autumnal cases, and that in each instance, save one, there was no reaction in the control cases. In that instance the control person reacted quite as well as the spring cases, although she had never had any periodical attacks previously. Professor Dunbar's answer, dated June 8th, was that it seemed likely that the autumnal cases would respond to some toxine other than the one thus far sent. They were now in the height of their hay fever season in Germany. Clinically, the antitoxine seemed to be of the greatest value when used as a preventive. He had been able to keep himself entirely free from all attacks by applying the antitoxine in the following manner: Two drops were placed well back in each nostril and sniffed up on arising, and before leaving the house one drop was placed in each nostril. The small bottle of serum, and the dropper with its tube in a small case, were carried about, and on the slightest evidence of itching one drop was applied. Many patients had thus been able to prevent the asthmatic attack. Hypodermic injections had thus far occasioned much local irritation.

The serum sent me is of such strength that one drop of it is sufficient to neutralize the effect of twenty drops of the toxine solution. For those intolerant of carbolic acid the serum was prepared as a dry powder and used as a snuff.

In the cases of the spring variety of hay fever the antitoxine has had a gratifying effect, and those patients who have used it have had in the main either complete relief or, where the condition was well advanced, decided amelioration, and this would indicate that the spring variety of hay fever in America is identical with the hay fever of Germany.

I have provided a number of hay fever subjects with phials of antitoxine and droppers, which they are ready to use on the approach of the date of their annual visitation, and their reports will be carefully gathered and announced.

It is too early to discuss the outcome of these investigations, but it seems at the present writing that the cause and treatment of the spring variety of our American hay fever are now known, and that it should not be difficult to find the toxine for the autumnal variety.

25 EAST SEVENTY-SEVENTH STREET.

MALTA FEVER.

By C. F. MASON, M.D.,

FORT SAM HOUSTON, TEXAS,

MAJOR AND SURGEON, U. S. ARMY.

I wish to call your attention to a case of Malta fever I have recently had under treatment at the post, the first, I believe, ever reported in Texas, and one of about a dozen in the United States, all imported.

The first case was reported in Philadelphia, in 1898, by Musser and Sailer, in the person of an officer recently returned from Puerto Rico. The second case reported among United States soldiers was a patient of mine in the General Hospital at San Juan, Puerto Rico, and was reported by my pathologist, Assistant Surgeon Walter Cox, United States Army. Before giving you a history of the present case I will refresh your memory by a brief *résumé* of this, to us, rare disease.

The disease is variously known about the Mediterranean, which was supposed for a time to be its only *habitat*, as Malta fever, Mediterranean fever, Rock fever, Neapolitan fever and Undulant fever. Now we know that it prevails also in the West Indies, in India, China, and the Philippines, and is probably much more widely distributed than is generally supposed.

It is a specific, infectious fever, endemic, or epidemic at times, due to the *Micrococcus melitensis* of Bruce, and is characterized by a long continued

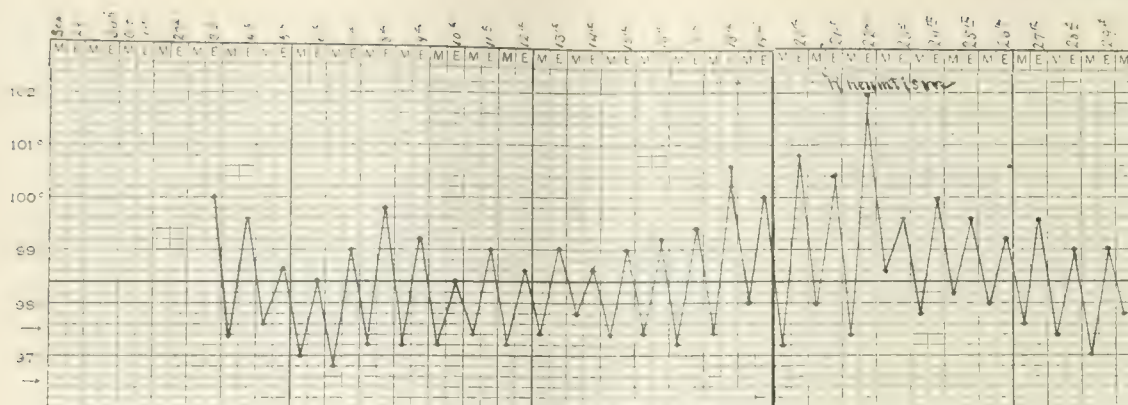


CHART 1.

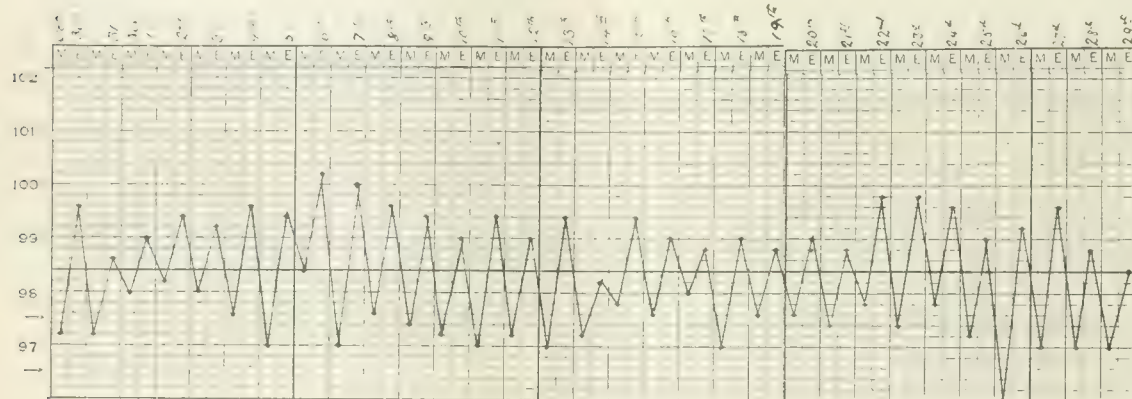


CHART 2.

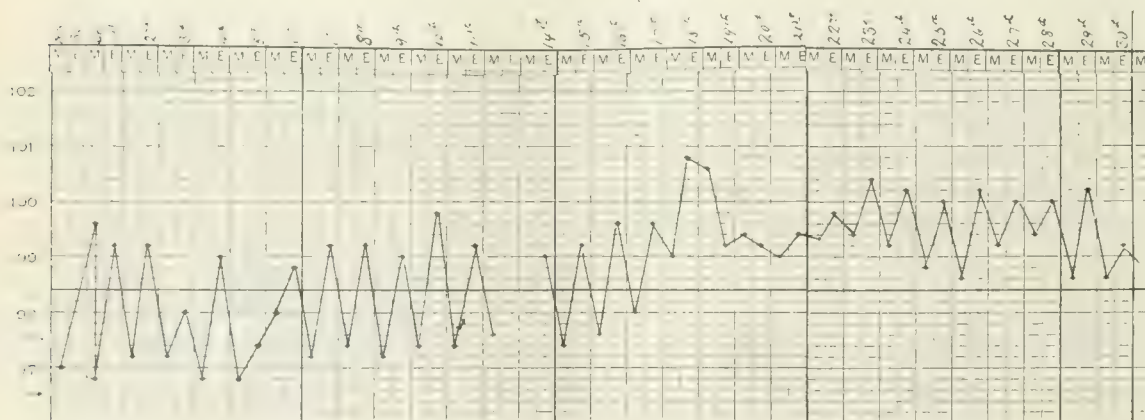


CHART 3.

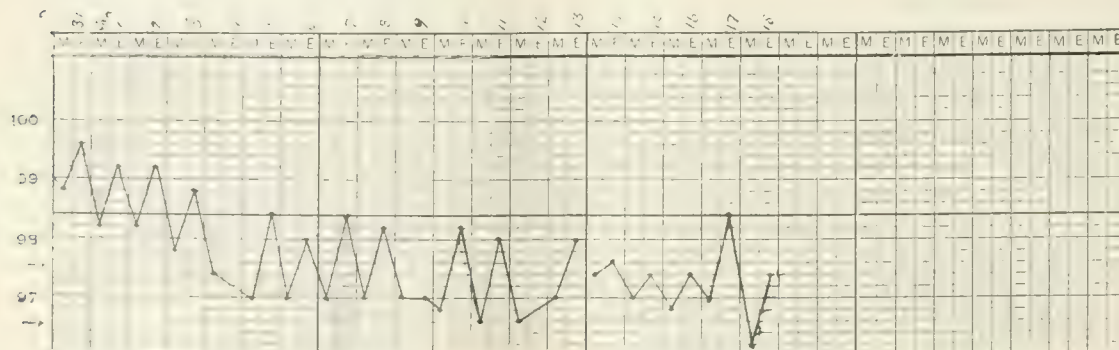


CHART 4.

The Temperature Chart in Dr. Mason's Case of Malta Fever.

undulatory fever, with remissions or intermissions, enlarged spleen, profuse sweats, arthritis, neuralgia and sometimes orchitis. Other features are constipation, anæmia, low mortality (2 per cent.) and tedious relapses.

The disease is not contagious: it occurs especially in the summer, earlier than typhoid. The micrococcus is not found in the blood during life, but is abundant in the spleen; it gives a characteristic agglutination with the blood of sufferers from the disease and is even more sensitive in this respect than the *Bacillus typhosus*.

The infection seems to be a place infection and is favored by unsanitary conditions, but whether it is water borne or air borne, or both, is not determined. A number of instances of accidental laboratory infection have occurred.

The incubation period is generally from five to ten days, though it may be as long as seventeen days. One attack usually confers immunity.

The symptoms are not especially distinctive in themselves; headaches, loss of appetite, constipation, fleeting swellings of the joints, obstinate neuralgias, night sweats; the sign that usually catches the attention, the temperature curve: waves of fever lasting from one to three weeks and followed by an intermission or remission of two or three days, and this continued for weeks or months, even as long as two years; the patient, though weak and anæmic, does not look seriously sick. Quinine has no effect; examination of the blood is negative for the plasmodium and for the Widal reaction, but is positive with the *Micrococcus melitensis*.

The treatment is symptomatic.

I will now describe my latest case:

Sergeant F. J. R., Company E, Fourth Infantry, was transferred to this post December 14, 1902, for observation and treatment. He came from Fort Ringgold, Texas, with a diagnosis of "chronic malarial fever, malarial cachexia. Complications: chronic muscular rheumatism."

Upon admission he was anæmic, with an enlarged spleen, and complained of marked sciatica and pains in the right shoulder; was constipated; he gave a history of what he called "rheumatism and malaria," with fever more or less constant for several months.

His blood was examined repeatedly (always with negative results) for the plasmodium, and for the agglutination tests with the typhoid and paracolon bacilli. Finally, recalling my Puerto Rican experiences, I had his blood tested for the *Micrococcus melitensis* with positive results, thus clinching the diagnosis.

He stated that he had been in the service eighteen years; had served in Cuba during the Santiago campaign, and had had some rheumatism after he returned; afterward he had served in the Philippines from the 10th of May to the 31st of December, 1899, and from June to December was on sick report with rheumatism; was then invalided home

and spent a month in the General Hospital at Presidio, California, going thence to the hospital at Hot Springs, Arkansas, where he remained until June 1, 1900. After leaving the hospital he was well until September 29, 1902, when he entered the hospital at Fort Ringgold for fever and rheumatism and remained there until his transfer in December. So you see that from June, 1899, to June, 1900, one year, he was continually on sick report for rheumatism and fever of which we have no record; he was probably suffering from Malta fever at that time. He next appeared sick in September, 1902, and had a practically continuous fever until January 3, 1903.

I will now read you his history as received from Fort Ringgold:

"Sergeant F. J. R., Co. E., Fourth Infantry, was admitted to hospital September 29, 1902, after some time of treatment in quarters for what was believed to be a return of malarial fever. His history shows that he had fever in Cuba, in 1898, and a return of the disease in the Philippine Islands, and was sent to the United States as a patient. From the Presidio he was sent to Hot Springs, Arkansas, and was treated in the Army and Navy General Hospital for rheumatism; the present attack has been slow in its approach.

"The first admission to sick report was August 11, 1902, then again sick in quarters August 23 to August 25 on account of sciatic neuralgia. The symptoms of greatest severity shown during the course of the disease have been constant pain upon moving the neck and upper dorsal region, painful to the touch or least pressure made upon the skin covering the spinous processes, pain, especially in the sciatic nerve, right side, pain in the region about the hip joint, at times in both shoulders; with this there has been a growing weakness in the lumbar and gluteal regions, and painful points, not in the sciatic nerves, as expected, but for the most part in the nerves sent to supply the hip joints and gluteal muscles.

"Malarial fever has followed this irregular continued fever. Anæmia is present, yet the fever has scarcely disturbed his appetite, the bowels have been regular, and sleep disturbed only as in cases of chronic rheumatism.

"The pain and inability to use the hip muscles in walking is believed to be the result of malarial neuritis.

"All symptoms were improving at the time of his leaving this post."

The charts which I now pass around will give you a fairly good idea of the course of the fever.

♦♦♦♦♦

The Opium Habit.—Jelliffe (*American Journal of the Medical Sciences*, May, 1903) discusses the opium habit, the possibilities of cure, which he believes depend largely upon the patient, and the uselessness of the varieties of morphine as substitutes, particularly heroine, although there seem to be slight differences. He does not approve of hyoscine, has found bromides of great service, but believes largely in the psychical influence and cooperation of the patient. He reports some very unusual cases.

PERIPHERAL PALSIES FOLLOWING MANUAL REPLACEMENT OF THE CONGENITALLY DISLOCATED HIP.*

By HENRY LING TAYLOR, M.D.

NEW YORK,

PROFESSOR OF SURGERY, POST GRADUATE MEDICAL
SCHOOL AND HOSPITAL.

Among Professor Lorenz's most admirable qualities are his readiness to answer pertinent questions and his frankness in relating the difficulties and dangers incident to manual replacement of the congenitally dislocated femoral head. Perhaps the chief danger connected with this procedure is that its seeming simplicity in the hands of a master may cause those less experienced to underestimate the skill necessary to success and to ignore the complications to which it is liable.

In observing the cases operated on by this method in several New York hospitals in the last few months the writer has been struck with the slowness with which some of the patients learned to walk. On investigation it was found that the quadriceps muscle in several cases was completely paralyzed. With the patient seated and the leg hanging, there was no power to extend the knee, while the knee flexors and foot muscles showed normal activity. The anterior crural nerve had evidently been injured by the manipulations. In applying the test care should be taken to see that the patient does not first flex the knee and then allow it to swing forward by its momentum, or from movements of the body. The quadriceps cannot be properly tested in the recumbent position, since the leg may be advanced by movements of the foot against a horizontal surface. In some cases passive extension was somewhat limited by contraction of the hamstrings, but this did not interfere with extension of the pendent leg.

My attention having been called to this complication, cases were examined, by the courtesy of Professor Gibney, Professor Plimpton, and Professor Townsend, as occasion offered, and nine instances of quadriceps paralysis, one of peroneus palsy, and one of sciatic were discovered among the cases operated on in December or later. Of the quadriceps palsies three were double, making twelve limbs affected.

The ages of the nine patients ranged from two years and a half to eleven years, but only four were over six years; all were girls. The complication was therefore frequent in this group of cases, and it occurred repeatedly in the hands of the most expert operators. The paralysis was in all cases complete when the cases were first examined a month or two after the operation, with the exception of one ex-

amined two months later, which was partial at that time. In all the cases but one or two which have not recently been seen the paralysis began to recover during the third or fourth month, and the recovery was either complete or was still progressing at the last examination. The complication seems, therefore, not to be serious, and the prognosis is decidedly good, even without treatment, for none of the cases received any for the paralysis. It should, however, be recognized as a common cause of delayed walking after reposition.

No.	Age.	Side.	Date of Operation.	Date of Exam.	Quadriceps Palsy.	Results.
1	6	R	Dec. 15, 1902.	Feb. 18, 1903.	Partial.	
2	6	D	Dec. 16	Feb. 25	Total both.	Mar. 18, slight power left; Apl. 3, slight power right; Apl. 24, good power both
3	10	D	Dec. 16	Mar. 18	Total both.	Apl. 22, slight power both.
4	5	R	Dec. 17	Feb. 22	Total.	May 7, still on crutches; can extend knee
5	8	L	Dec. 17	Jan. 23	Total.	
6	2½	D	Dec. 17	Mar. 30	Total both.	May 7, can extend knees somewhat.
7	11	R	Jan. 14	Feb. 18	Total.	May 7, complete recovery.
8	9		Jan. 15	Feb. 18	Total.	May 7, recovery.
9	4		Feb. 13	Mar. 28	Total right.	Apl. 18, slight power.
10	10		Dec. 17	Feb. 18	Palsy peroneus nerve; drop foot	Apl. 30, nearly complete recovery.
11	13	D	Feb. 18	Mar. 10	Complete palsy right sciatic; no power below knee.	May 8, very slight motion at ankle.

In addition to these cases of quadriceps paralysis I have observed two cases of foot-drop following the operation, without involvement of the quadriceps. In a girl of ten years of age there was a complete paralysis of the anterior leg muscles, with foot-drop, apparently due to stretching of the peroneal nerve; this patient is now recovering. In a thirteen-year-old girl all the muscles below the knee, both front and back, were paralyzed, and three months after the operation there was evidence of but a faint trace of returning power. The palsy in this case was undoubtedly due to a stretching or rupture of the sciatic above its bifurcation. These peroneal and sciatic palsies are more serious than the crural, and if due to rupture of the nerve they may be permanent. Both cases observed were considerably beyond the age and limit, and in one, reposition was not accomplished.

Professor Lorenz, in his monograph on the treatment of congenital hip dislocation, published in

* Read before the American Orthopaedic Association at Washington, D. C., May 13, 1903.

1900, reports five cases of quadriceps and three of sciatic paralysis out of some four hundred replacements; all of the former recovered. My observations agree in all respects with those above recorded, except that in the series here reported the paralysis is more frequent, having occurred in a group of less than fifty cases, and is by no means confined to the older cases. It should be remembered, however, that a quadriceps palsy might easily escape notice, and the child's difficulty in walking be attributed to the awkwardness of the posture.

The conclusion is obvious from the frequency of this complication and from the liability to more serious accidents that the manipulations should be deliberate and careful, and that when serious obstacles to reposition exist, the attempt to reduce the dislocation by manual force alone should be abandoned.

RHEUMATISM AND TYPHOID IN CHILDHOOD.

By J. R. CLEMENS, M.D.,

ST. LOUIS, MO.

It has been said that a diagnosis rests on no one symptom, but on the balancing of probabilities; yet the diagnosis of rheumatism in childhood is an exception to this axiom. Grouping of symptoms is uncommon, the various phases arise independently and apart from each other, "so that the history of a rheumatism may be the history of a childhood." As the child grows, so do the manifestations of disease keep pace with it developmentally; the more simple the stage of development, the more simple the morbid expression. There is a certain poverty of expression of disease in general as manifested in childhood, for we see in an apparently simple continued fever the disguise common to several morbid entities, and again a convulsion may act as the herald to many different diseases. This fact is often lost sight of in practice, and in no department of medicine does the narrow minded man come more often to grief than in that devoted to the diseases of children.

An ailing child is brought with a history of fever by night and apyrexia during the day, the fever beginning soon after the child is put to bed and continuing until morning, a low grade of delirium often accompanying the fever.

With the advent of day, rapid defervescence takes place, with a general amelioration of symptoms, so that, save for some lassitude, the child appears relatively much better. Each night brings a return of the fever and each day finds the child apparently convalescing. A diagnosis of typhoid readily suggests itself, and although no Widal reaction is obtained at any time during the illness, the child is

treated—and quite properly—on the pessimistic and expectant plan, a milk diet, confinement to bed, and a saline fever mixture being recommended.

The subsequent history is significant.

After an apparent rapid convalescence, characterized, however, by a stubborn and persisting high grade of anæmia, the child is noticed to be growing more irritable and excitable, crying on little or no provocation. She becomes awkward on her feet (for the patient is generally a girl), and drops whatever she carries in her hand, or one hand (generally the right) is not used at all. From this right sided paretic hemichorea, the full clinical picture of chorea is rapidly completed. The diagnosis has evidently to be recast in the light of subsequent events and the ground carefully gone over.

To this end, examination of the heart and a close cross examination of the mother will discover much. Often, heart sounds that were some weeks previously quite clear, are now murmurish; or all grades of murmurs, from basic systolic to apical systolic and diastolic, are heard, and yet conclusions to be drawn from these *at the time* are not so valuable as a history of the child having had a stiff neck some eight or ten weeks *previously*, or that from time to time she has been heard to complain of "growing pains." Further cross examination, now peremptory and incisive, will perhaps elicit hazy recollections of rheumatism in the mother herself, or evanescent joint swellings in the child. To him who follows closely the text-books, and labels all the simple continued fevers of unknown origin as "typhoid," there will appear at times the reproachful and accusing ghost of a chorea. Turning to the text-books on children's diseases, under the heading of diagnosis in typhoid fever, we find elaborate differential diagnoses in which acute rheumatism is conspicuous by its absence. A reason for this may be that the rheumatism of childhood has been so well described by many of our ablest writers and made to appear so clear and easy of recognition that its apparent simplicity has taken from it the reproach that typhoid fever ever labors under—a trap for the unwary.

The Aberdeen District and the Big Stone County (Minn.) medical societies held a joint midsummer meeting on July 18, 1903, in the auditorium at Big Stone City, S. D. In addition to a very interesting and creditable literary programme the doctors, numbering about fifty, and their wives, enjoyed a delightful steamboat ride about Big Stone Lake, with a landing for a banquet at one of the most picturesque places along that beautiful lake, so full of historical interest. Arrangements had been made for an outing for three or four days, and as the doctors at the end of that time returned to their homes and duties they declared the meeting to have been an unqualified success, and voted hereafter to make it an annual affair.

CORRESPONDENCE.

LETTER FROM LONDON.

National Peculiarities in the Practitioner.—English Quack Advertisements.—“Embalmed” Rations.—The Loxe Physique of the British Recruit.—Forgetfulness of Personal Identity.—“Kissing the Book.”—The Finger Print Criminal Record.—Whipping as a Punishment.—The Birth Rate and Death Rate.—Pauperism.—The Dignity of English Benevolence.—The Tea Drinking Habit.—The Cost of Smallpox.—The Frequency of Infanticide.—Caisson Disease.—English Appreciation of Periodical Medical Literature.

LONDON, 15, 1903.

While it is very creditable and, in fact, very desirable to do, while in Rome, as the Romans do, one finds it, nevertheless, hard to restrain the feeling that “my doxy is orthodoxy, your doxy is heterodoxy.” To one familiar with the customs of physicians in America the many Parisian deviations are apt to be somewhat shocking, and, likewise, in London there are points of divergence that characterize the minutiae of the healing art. Comparisons, however, between the American and his London colleague, if “odorous,” would not be distressingly so to the Britisher, and I may lay a flattering unction to his soul by attributing to him in the practice of his profession an amount of staidness and dignity that commends his conduct to his more versatile Yankee brother. The knowledge of this fact, however, is not completely hidden from Dr. “John Bull,” and the fashionable gylactery is an expanded one.

The quack advertisements in the London papers are glaringly absurd. A recent luminous example booms Dr. Blank’s purple pills for pallid people, and details the many diseases with which the Lord was pleased to afflict Mr. Jack Drooko, a professional acrobat. A fearful array of maladies, culminating in locomotor ataxia is given: “Finally I lost my speech: the agony was terrible. At the eleventh hour I was recommended to take Dr. Blank’s purple pills.” Needless to say, he returned to his acrobatic performances cured. A picture of Mr. Drooko on the trapeze is given in proof.

Full details of the recent military meat scandal are given in a Parliamentary paper just issued. Lieutenant General Lyttelton reports to the War Office that, as a result of complaints, inquiries, and analyses, the enormous number of 1,669,382 tins of military rations stored at Pretoria have been destroyed. The officer commanding in the Pretoria district had received frequent complaints concerning the rations, and the medical officers

had attributed to them the prevalence of diarrhoea among the troops. Upon making inquiry into the matter the commanding officer determined that the rations were unfit for issue to the troops and ordered an analysis. The analyst stated that the tins contained heavy traces of iron. Tins were blown, blackened, and corroded. “The whole should be destroyed,” ran the certificate, “being unfit for food and a possible danger to health,” whereupon a board of officers condemned enormous quantities of oats, biscuits, lime juice, meat, and vegetables.

A discussion in the House of Lords on the physique of the nation has struck only the first note on a subject of which a good deal more is likely to be heard in the near future. It would seem that something like fifty per cent. of all candidates presenting themselves for service in the army are rejected on the grounds of physical unfitness. The correspondent of the *Times*, commenting on the march past of the troops at Aldershot, remarked that it was with a sinking of the heart that one saw the infantry regiments approach the saluting point, so unsatisfactory was the impression that their physique must have given the French President. Unless something is done to find suitable recruits, the standard, already a low one, will have to be reduced still further. The Duke of Devonshire has stated in the House of Lords that a Royal Commission will probably be appointed to investigate the subject.

An extraordinary case of complete loss of memory affecting simultaneously both mother and son was reported recently from Brighton. Both persons had forgotten even their names, and, confronted at the police station, no evidence of recognition was evinced on either side. A respectable man living at Lewes, however, having read the printed description, claimed both persons as his wife and son, respectively.

Those who think that danger lurks in the familiar practice of “kissing the book” will be interested in an incident at a recent inquest at High Wycombe. The jury was sworn on a New Testament which the coroner proudly stated had been in constant use for 105 years. Whether or not the jury had the same satisfaction in the interesting fact does not appear. A very curious incident in connection with this same practice concerns the late Lord Iddesleigh, who was appointed a magistrate for Devon. He attended the castle to be sworn in and was handed a discolored book tied around with what had originally been red tape. Not liking the appearance of the volume, he took out his knife and cut the tape, and—discovered that for thirty years the magistrates of Devon had been sworn on a *Ready Reckoner*!

The finger print system in use here for the identification of criminals had its value recently illustrated in the case of a burglar who had left a finger print on a window pane. Upon comparison of this print with the thousands on record at Scotland Yard, it was decided that the owner had never been convicted or else was a "new hand." Upon capture the conclusion was proved to have been correct, and the "new hand" received a light sentence of six months, his accomplice getting three years of hard labor for his share.

While writing of criminals it may be interesting to note that the "cat" is not yet obsolete in this country. A few days ago a man, who had robbed a woman and beaten her brutally besides, was sentenced to a year's imprisonment and to receive twenty-four strokes with the "cat."

The deaths registered last week in twenty-six great towns of England and Wales corresponded to the annual death rate of 14.4 per thousand of their aggregate population, which is estimated at 15,075,011. In Greater London 3,800 births and 1,645 deaths were registered. Allowing for the increase of population, these numbers are 107 above and 263 below the respective averages in the corresponding weeks of the last ten years.

As for pauperism, there were recently in England and Wales 702,083 paupers. London alone claiming 105,277 of these. The ratio is 21.3 per 1,000 of population, as against a proportion of 48.3 per 1,000 which prevailed in 1863.

In going about London I am very pleasantly impressed by the public institutions. They seem to conform, outwardly at least, to up to date standards in a manner that cannot be said to be characteristic of the French. The street processions of orphans taking an airing are typical, indeed, of everything that hale and hearty John Bull has an interest in. The clothing of the boys and girls, while, of course, uniform, is well cut and of good material, and the look of health and independence on the faces of the waifs speaks volumes for the training which they receive. In France similar processions always arouse a feeling of pity in the witness, and I have often fancied the existence of *Oliver Twist* in a Gallicized form.

Recently I wrote from France of the wine-bibbing and liqueur-tasting vices and of the efforts of the Government to educate the people. The same comments might be written from London, with whisky substituted for wine, and tea for liqueur. The British workman's meal time dose of tea is about a litre, and its strength is about three times that which an American would consider tolerable. And the same quantity of the horrible beverage is taken every day, in spite of, if not because of, the efforts of those good people, the reformers.

Vaccination fees in the Wycombe Union of Bucks have amounted to nearly £1,900 during the past six years, and it is reported to the guardians that each case of smallpox during that time has cost £100.

It is very seldom possible to read an English newspaper without seeing therein ample evidence of the fact that there is continually going on a massacre of the innocents. The finding of newborn children dead, with hands tightened about the neck, is rousing the authorities, but the murders go on, nevertheless.

The pathology, or perhaps better, the physics, of caisson sickness has been practically settled by the experiments of Dr. Leonard J. Hill and Dr. J. J. MacCleod, which were published recently in the *London Hospital Gazette*. These experiments demonstrate that when the air in a closed chamber containing a human being is compressed, the pressure is equally transmitted to all the fluids of the body, and that the amount of nitrogen and oxygen dissolved in the blood increases according to Dalton's law of partial pressures. In an hour and a half the arterial blood becomes saturated. On sudden decompression, therefore, the liberated gas collects in the heart, froths, and stops the circulation. By slow compression, on the other hand, animals may recover after being exposed to the pressure of severe atmospheres. An important phase is that, as compressed air is a much better conductor of heat than air at the ordinary pressure, divers and caisson workers are exposed to cold in their work.

In my casual Paul Pryings into conditions and things medical I think one of the very favorable signs of the times among the medical Englishmen is their wide acquaintance with periodical medicine. Not only are they acquainted with the leading English medical journals, but with commendable liberality they rate at their proper importance the chief medical journals of America and of France. I should not have noted this were it not for the fact that some months ago, at the library of the *Ecole de Médecine* of Paris—the largest medical library in France, by the way—I found it impossible to secure three of the six most prominent British magazines, while, of those on hand, only copies two months old or more, could be had.

♦♦♦

A Traveling Pest House.—Since the big flood, the Kansas City pest house has been missing. It was discovered, sailing right side up, by an alderman, near the Milwaukee railway bridge. The neighboring farmers had evidently recognized its nature, as not a plank was missing to mend a delapidated fence. When the structure left its moorings, it was in good condition, and contained a hundred and fifty dollars' worth of new surgical instruments. It had cost \$4,000 to build.

Therapeutical Notes.

For Local Hyperidrosis.—Where hyperidrosis is general, the cause—tuberculosis, arthritism, anæmia, fever,—will of course be treated (*Journal des praticiens*, June 27th). Agaricin, atropine, ergotine, sodium tellurate, are not of much use except in tuberculosis; they are contraindicated in pyrexia. For hyperidrosis of the hands, feet, or axillæ, local baths with vinegar, an infusion of walnut leaves and alum, a quarter of one per cent. solution of potassium permanganate, or a mixture of a tablespoonful of commercial formol in a quart of water, are all curative. Subsequently the affected parts should be rubbed with the following lotion, diluted with one or two parts of water:

- R Naphthol B.....5 parts;
Glycerin10 parts;
Alcohol100 parts (Brocq.)
M. For a lotion. To be diluted.

or this may be substituted:

- R Thymol1 gramme (15 grains);
Tannin5 grammes (75 grains);
Camphorated brandy....200 grammes (6 $\frac{7}{8}$ ounces).
M. Lotion.

Subsequently the feet should be carefully dried, and powdered with talcum, starch, or bismuth subnitrate, or with the following, the official foot powder of the French army:

- R Salicylic acid.....3 grammes (45 grains);
Starch10 grammes (150 grains);
Powdered talc.....87 grammes (2 $\frac{1}{2}$ ounces).
M. Foot powder.

The following may be preferred:

- R Salicylic acid.....3 grammes (45 grains);
Powdered alum { of each...5 grammes (75 grains);
Naphthol B. {
Sodium borate {
Powdered starch { of each. 10 grammes (150 grains);
Powdered talc.....67 grammes (2 $\frac{1}{8}$ ounces).
M. Foot powder.

A novel prescription is:

- R Coal tar.....5 parts;
Plaster of Paris.....100 parts.
M. Dusting powder.

Another excellent and simple formula is:

- R Bismuth subnitrate.....15 grammes (4 drachms);
Sodium salicylate.....5 grammes (75 grains).
M. For external use.

These powders should also be dusted into the socks and shoes. Every week or so, the following should be rubbed in between the toes:

- R Red lead oxide.....1 gramme (15 grains);
Liquid lead subacetate....29 grammes (7 drachms).
M. Lotion.

Any local hyperidrosis will yield rapidly to a combination of the foregoing.

Vegetable Remedies for Burns.—Liégeois (*Journal des praticiens*, June 27th) gives several formulæ for the benefit of country practitioners who may have to treat burns without having at hand carron oil, picric acid, or any of the chemical antiseptics. He obtained them from the peasants themselves. For burns of the first degree, nothing is better than the application of a crushed onion, well salted; it may contain some antiseptic quality, or

perhaps its mucilaginous properties are analgetic. Comfrey acts in the same way; either may be used with absorbent cotton. Ambroise Paré, in burns of the third and fourth degree, after opening the blisters, anointed the destroyed part of the skin with walnut oil, slightly salted, in which he had had boiled the crushed leaves of the elder. The middle bark of the elder, and its twigs are also highly esteemed. The following ointment is excellent:

- R Oil of hemp seed or St. John's wort...100 grammes
(3 ounces);
Fresh second bark of young elder twigs...15 grammes
($\frac{1}{2}$ ounce);

M. Boil until thick.

Some families prepare this ointment:

- R Fresh flowering sage tops...15 grammes ($\frac{1}{2}$ ounce);
Lard250 grammes (8 ounces).
M. Ointment for burns.

Liégeois, following Lucas-Champonnière's ointment of naphtholated vaseline with geranium, etc., used to recommend his country friends to prepare and keep this ointment:

- R Fresh geranium leaves and flowers }
Fresh verbena leaves and flowers } of each.....5
Flowering sage } grammes (75
Flowering thyme } grains);
Flowering sweet marjoram }
White lily bulb.....1;
Lard250 grammes (8 ounces).
M. Boil thirty-five minutes, and strain.

The peasants spread the above on leaves of perry, cabbage, plantain, and above all ivy. The old French considered ivy a marvellous remedy for burns and used to combine its juice with goosegrease. Common birthwort (*Aristolochia clematitis*), in the following combination, calms pain at once, and is an admirable cicatrizant:

- R Hemp seed oil { of each...250 grammes (8 ounces);
Red wine {
Fresh birthwort root.....4 grammes (1 drachm).
M. Boil, till the wine evaporates.

For Colitis in Children.—Dr. Visanska (*Therapeutic Gazette*, July) has the following remarks in an article on the "summer complaint" of children: In the treatment of colitis we have three things to combat—tenesmus, the passage of mucus and blood, and a great many stools. The diet should be easily digested food. Our object now is to relieve the straining, lessen the frequency, and change the character of the stools. Nothing acts better than the following:

- R Magnesium sulphate.....5 grains;
Deodorated tincture of opium...½ a minim to 1 minim;
Syrup of tolu.15 minims;
Peppermint water to make 1 drachm.

M. A teaspoonful may be given every two hours to a child one year old.

The opium should be ordered separately, as you may want to increase or decrease the dose, or leave it out entirely. After a few doses you will get the desired effect, then large doses of bismuth subnitrate should be given, say, to a child one year old, half a drachm every two hours. Do not be afraid to give the bismuth; small doses are useless. High irrigation of the colon with normal salt solution should be given morning and evening, and an occasional dose of calomel and soda is often required.

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NEW YORK, SATURDAY, AUGUST 8, 1903.

YELLOW FEVER IN MEXICO.

According to the July 24th issue of Surgeon General Wyman's *Public Health Reports*, there had been reported one fatal case in Cardenas on June 10th, nine deaths from the disease in Merida from June 6th to June 27th, twelve cases in Orizaba from May 17th to July 6th (all but one from Vera Cruz), two cases in Progreso from June 20th to July 12th, ninety-three deaths in Tampico from June 13th to July 4th, and seventy-four cases and twenty-five deaths in Vera Cruz during the period last specified.

On July 12th Acting Assistant Surgeon Harrison reported that the sanitary conditions of Progreso were not good; yellow fever patients were not invariably isolated and not all cases of the disease were promptly reported. The people of Progreso appeared to take no interest in the prevention of the disease or in measures for the destruction of mosquitoes, of which recent rains had caused a decided increase in number. Merida also was reported to be in a very bad sanitary condition, with from two to five deaths a week from yellow fever, but in a Merida newspaper there had appeared an appeal from the governor of the State of Yucatan to the health authorities urging the adoption of active measures for the arrest and prevention of the disease and for the destruction of mosquitoes.

So much for the dark side of the situation in Mexico. On the other hand, Acting Assistant Surgeon Hamilton, stationed in Laredo, Texas, reported on July 10th that Consul General Hanna,

serving at Monterey, had telegraphed on that day as follows: "Have made careful investigation. Am thoroughly convinced that everything is clean as far south as Victoria. No cases of yellow fever known in Victoria or Monterey. Two quarantines between here and Tampico." Consular Agent Storms reports from Victoria that there is no yellow fever in or near that place, and that there has been none since 1898. In addition to precautions on the railway from Tampico, he says, a mosquito-proof hospital has been completed and is ready for use. "The general sanitary condition of Victoria," he adds, "is good. The city has been divided into districts, each district being under the immediate supervision of a physician. A house to house inspection has been and is being made, and necessary measures are being enforced to bring about a sanitary condition." On the whole, it is not to be doubted that our Mexican brethren may be relied on to cooperate effectively with the medical officers of the United States Public Health and Marine Hospital Service, or, consequently, that there is far less danger than in former years of an invasion of our country by yellow fever by way of Mexico.

THE SCHOLAR IN MEDICINE.

The rapid expansion of the medical horizon during the past quarter of a century has attracted to this field a class of men of much greater scholarly attainments than those who formed the bulk of the profession in the United States prior to that time. The elevation of the preliminary requirements for the study of medicine and the lengthening of the course of medical instruction in leading medical colleges during the past five years, have had a most pronounced effect on the character of the matriculants in medicine in our larger medical colleges.

In an interesting study on the careers of scholarly men in America, which appears in the May number of the *Century* magazine, Professor Edward L. Thorndike, of the Teacher's College, Columbia University, analyzes the records of the Phi Beta Kappa Society from 1850 down to 1900, with a view to determining the professional tendencies among scholarly men. He explains that membership in this society is recognized as a badge of scholarship, and defines as a scholarly man "a man who has the ability to acquire and think about knowledge, and

is a narrower term than "intellectual man" and much narrower than "a man of mental ability." If we proceed upon the assumption that this means of selecting the scholarly men among the college graduates is a correct one, Professor Thorndike says, it shows that medicine has not been a popular profession with scholarly graduates, the percentage adopting that profession ranging between 6 and 4 from 1840 to 1885, and 7.5 and 7 from 1885 to 1889 and 1890 to 1894 respectively. As contrasted with the proportion of scholarly men in law, theology, and pedagogy, medicine takes but a low stand, but it is a hopeful sign that the increase in the percentage of scholarly men studying medicine seems to be more steady than in any of the other professions. The cause of the gain in popularity in medicine from 1885 to 1895 is, we think, quite properly assigned by the author to the advance of medicine to the dignity of a science, and the introduction into the college course of electives in science, the former making the career more attractive to the thinker, and the latter offering an opportunity for the scholarly minded youth to develop his scientific capacity and become interested in the sciences which lead up to the study of medicine. Professor Thorndike does not think that the medical profession will change decidedly in attractiveness to scholarly men, either one way or the other, an opinion in which we cannot concur, as the tendency toward a high degree of specialization, the rich rewards both in fame and in intellectual interests held out in the field of experimental medicine, and the advantages accruing from the exclusion of the illiterate and ill-prepared owing to the operation of the more stringent regulations regarding matriculation, will, we believe, work a decided change in the attitude of the scholarly men toward the profession of medicine.

It seems, in fact, that in view of the opportunities afforded for a high degree of specialization in medicine, it is somewhat surprising that so small a proportion of what Professor Thorndike looks upon as scholarly men have taken up this profession. In fact, a contemplation of the apparent disproportion between the men of scholarly attainments taking up the study of medicine and that of law, as given by Professor Thorndike, inclines us somewhat to doubt the value of the standard adopted by him to indi-

cate the scholarly man. It is no doubt true, as he says, that the Phi Beta Kappa badge is a recognized mark of scholarship, but is it not possible that membership in the society is along lines of classical scholarship in a restricted sense, which would necessarily rule out many men with the scientific turn likely to lead to the study of medicine? We feel quite sure that whether or not this is the case, a study of the changes in the proportion of medical students among college graduates would show figures much more favorable to medicine than do these figures which are restricted to men defined as scholarly by Professor Thorndike. But if we accept the narrow restriction imposed by Professor Thorndike on the term scholarly, we have reason to be hopeful for the future of medicine in this country, in view of the steady growth of interest in the question among such men, as indicated by Professor Thorndike's analysis of the life work of the Phi Beta Kappa fraternity.

THE PROBLEM OF THE WELL-TO-DO INEBRIATE.

In order to carry out a scheme for the relief of this class, two lines of endeavor must be attempted: First, the securing of legislation which will enable us to commit an inebriate for a period of from one to three years; and, second, the establishment of a colony where these persons can be isolated and kept from the use of liquor and at the same time can be subjected to all the stimulating influences of which mention has been made.

With regard to the enactment of a law, it is seen that possibly the present form for commitment of the insane, by which the person has to be examined by two qualified and registered physicians, and their findings sworn to and approved by a judge, can be used. In this form the language need only be changed so as to read "victim of dipsomania" or a similar expression, and the commitment will have to read for a definite period of one, two, or three years. It has been maintained that it will be unconstitutional to enact such a law, because we have no right to restrain a person whose mind is unimpaired. If, however, upon the certificate of properly qualified physicians it is decided that the person is suffering from a disease which is injurious to himself and

to a public institution that it might be allowed. At any rate, such a law has been passed in the State of Connecticut and in other countries. The enactment of such a law is, certainly, the *sine qua non* to the success of any method of treating or helping habitual inebriety, and if our legislators deny us the right to do this, no attempt to go further need be made. It seems unlikely that when the matter is presented in all its bearings there will be any hesitation about it. The chronic inebriate is a person really suffering from a mental disease, just like the chronic maniac, and one which incapacitates him from supporting himself, makes him liable to be an injury to the community and a burden upon the State, as well as a source of present danger. If the State has the right to isolate lepers, smallpox patients, and even, it is maintained, those with scarlet fever, it seems to have the right to isolate the habitual inebriate, it being understood that such isolation or commitment would never be done except under the fullest precautions.

As regards the second point, that of providing a suitable place where such patients can be treated, the problem is difficult. We would particularly insist upon the importance of not only establishing such a place as would be one of restraint, but of having it under the very best medical and executive management, and on making it attractive as a place to live in. It should be a place where work can be done, where study can be pursued, where amusements of all kinds can be followed. It must be a place the establishment of which would eventually entail the expenditure of large sums of money; but it does not seem likely that this would be wanting. Over and over again there occur cases in the experience of physicians, in this city at least, where young men, through their dissipation and inebriate habits, waste sums of money large enough to run a small place in itself, and there are many families who would be willing to spend almost any amount to secure the cure and reformation of their children.

It is not intended at first that this should be a colony for the poor or even indigent, because it will cost large sums of money to operate it and because it seems to us that the children of the well-to-do are particularly unfortunate when they suffer from the drink disease. The rich son of a

rich family can, if he has the drink habit, do infinitely more harm, produce more unhappiness, waste a great deal more money, and, through his influence, do more moral evil than the poor inebriate. Besides, it seems probable that alcohol takes a much severer hold upon the well-to-do class and produces more striking types of inebriety with moral deterioration than one sees in the lower walks of life. At any rate, the object is first of all to start an ideal institution which, if successful, will serve as a model for relieving persons in every walk of life. It is not believed that the State can do this effectively, nor is it distinctly the function of the State to help this class. The watchfulness and care which will be required to carry on such an institution will demand a qualified guardianship which is not likely to be provided for by the officers of the State, however free they may be from politics.

CHARLES L. DANA.

THE PASSING OF THE QUIZ.

It is said that members of the teaching staff of one of the medical schools of New York have been told that they must give up their places if they wish to give private instruction to students. If this report is true, it will not surprise any one who has watched the course of events in that institution during the past two or three years. The quiz is a relic of the days when the instruction in the college consisted of didactic lectures by the professors, with few demonstrations, no recitations, and an examination at the end of the course of study. The exceptionally studious matriculate could obtain a good medical education in this manner, but the average student needed a greater incentive to daily work than the prospect of an examination a year or two in the future, and also something to tease out his mental powers so that he could comprehend better the subjects studied. Hence arose quizzes, or small classes of students grouped about private instructors for recitations and personal teaching. The quiz masters were usually more or less recent graduates, often attached to the college in subordinate positions, and more than one of them finally attained professional dignity. Their work was very effective, and the older graduates know that the exceptionally good attainments of the students, and inci-

dentally the high rank of the college, were due in no small degree to the almost universal custom among them of quizzing. But to the student who came to the college with the idea that the fees mentioned in the catalogue covered all the expenses necessary to secure the best quality of medical instruction the discovery that an additional fee of from fifty to a hundred dollars a year was needed to obtain the best was often a serious matter, and he sometimes felt that the college ought to furnish this, even though the tuition fees mentioned would have to be raised. The only possible remedy lay in the radical change in the methods of medical college instruction which has gradually been brought about, and if this has now reached the point where all the students are educated to the same degree in the college as in the quiz, they are to be congratulated that the quiz will soon be known to them only through the traditions of the past.

MATTHIAS LANCKTON FOSTER.

THE ANTITOXINE TREATMENT OF HAY FEVER.

Foreign reports of therapeutic achievements have not the same convincing effect—at least at first—as the statements of our own men. It is therefore with great satisfaction that we lay before our readers this week Dr. Mayer's account of his experience with Professor Dunbar's hay fever antitoxine, the first American experience with the remedy to be recorded. What we rather loosely term hay fever is probably not always the same affection. The probability that the name has been used to cover diverse pathological conditions is confirmed by Dr. Mayer's observation that, while the Dunbar antitoxine is curative of the forms of "hay fever" that occur in the early summer months, it fails in the autumnal forms. But we may readily fall in with Dr. Mayer's suggestion that the production of an antitoxine potent in autumnal cases ought not to present any great difficulty.

PROTRACTED LOCALIZATION IN PARALYSIS AGITANS.

In view of Gowers's statement that the tremor of paralysis agitans becomes generalized within a period varying from a few months to three or four years Pezza (*Morgagni*, December, 1902; *Zentralblatt für innere Medizin*, June 6, 1903) thinks importance is to be attached to a case observed by him in which it remained confined to the right hand for six years.

THE PSYCHICAL ASPECT OF THE CONSUMPTIVE.

We are all more or less familiar with the consumptive's rosy view of his own case, with his blind faith in new remedies for his disease, and with certain others of his mental and emotional peculiarities, but it is well to be furnished with such a systematic digest of the subject of the psychical results of tuberculous disease as is embodied in Dr. Saxe's article, the concluding portion of which is published in this issue of the *Journal*. The pathetic and dramatic aspects of the mental characteristics as modified or unmasked by the disease have not failed to be appreciated by writers of fiction, but there is a more strictly medical phase to the transformation, one that is plainly brought out by Dr. Saxe, as it was in a somewhat more concrete way by Dr. Fanoni in our issue for February 8, 1902. Each of these young New York physicians has, in our opinion, provided our readers with a most instructive article.

THE FRENCH AND APPENDICULAR INFLAMMATION.

Dr. Howard A. Kelly, of Baltimore, has discovered that the French long ago pointed out the part played by perforative disease of the vermiform appendix in giving rise to peritonitis, and he credits them with the original suggestion of operative intervention. He set these things forth somewhat elaborately in a communication presented to the Paris Society of Surgery on June 10th and published in the *Presse médicale* for June 13th.

NON-PATHOLOGICAL ALBUMINURIA.

The matter of the occurrence of albuminuria without disease of the kidney has lately been investigated anew by Rapp (*Militärärztliche Zeitschrift*, 1903, No. 1; *Berliner klinische Wochenschrift*, May 18th), and, on the strength of his own observations and the recorded researches of others, he concludes that a variety of circumstances may give rise to albuminuria quite apart from renal disease; also that casts may be observed in the urine of healthy persons, either with or without albumin.

ALKALOIDS IN ANTASTHMATIC FUMES.

One would think that it might have been taken for granted that whatever antasthmatic efficacy lay in the smoke of belladonna, hyoscyamus, stramonium, and lobelia was due to its containing the active principle of the respective plant, but Netolitzky (*Wiener klinische Wochenschrift*, 1903, No. 20; *Berliner klinische Wochenschrift*, June 22d) has felt called upon to make an investigation, and he finds that it is even so.

News Items.

Society Meetings for the Coming Week:

MONDAY, August 10th.—New York Academy of Medicine (Section in General Surgery); New York Academy of Sciences (Section in Chemistry and Technology); New York Medico-historical Society (private); New York Ophthalmological Society (private); Gynecological Society of Boston; Burlington, Vt., Medical and Surgical Club; Norwalk, Conn., Medical Society (private); Medical Association of the Greater City of New York; Society of Medical Jurisprudence.

TUESDAY, August 11th.—New York Academy of Medicine (Section in Genitourinary Surgery); Medical Society of the County of Rensselaer, N. Y.; Newark, N. J., Medical Association (private); Trenton, N. J., Medical Association; Clinical Society of the Elizabeth, N. J., General Hospital and Dispensary; Northwestern Medical Society of Philadelphia; Practitioners' Club, Richmond, Ky.; Richmond, Va., Academy of Medicine and Surgery.

WEDNESDAY, August 12th.—American Microscopical Society of the City of New York; Society of the Alumni of the City (Charity) Hospital; Lenox Medical and Surgical Society (private).

THURSDAY, August 13th.—New York Academy of Medicine (Section in Pædiatrics); New York Academy of Medicine (Section in Otolaryngology); Brooklyn Pathological Society; Medical Society of the County of Cayuga, N. Y.; South Boston, Mass., Medical Club (private).

FRIDAY, August 14th.—German Medical Society of Brooklyn; Medical Society of the Town of Saugerties, N. Y.

Change of Address.—Dr. A. Robin, to 817 Adams Street, Wilmington, Del.

NEW YORK, CITY AND STATE

The New York Polyclinic Hospital.—An examination for two junior assistants will be held at the hospital on August 18th, at 10 a. m. For particulars apply to the Superintendent, 214 East Thirty-fourth Street.

St. John's Guild in Need.—Mayor Low recently contributed \$250.00 to the floating hospital managed by the St. John's Guild. The guild finds with regret that subscriptions are not coming in fast enough to keep up the work properly.

Dumping at Riker's Island.—The people of the borough of Queens have engaged a lawyer to bring proceedings for an injunction restraining the City of New York from using Riker's Island as a dumping ground. Commissioner Lederle recently received a petition containing over one thousand signatures against the practice. The commissioner states that action has been delayed by the absence from the city of Dr. Woodbury.

Removal of Blind Asylum.—The New York Institution for the Blind, now at Ninth Avenue and Thirty-fourth Street, will in time occupy seven new buildings on Washington Heights, between One Hundred and Sixty-fifth and One Hundred and Sixty-seventh streets, Broadway, and the Hudson River. Plans are now being prepared by the architects. It is thought the removal is caused by the erection of the new Pennsylvania station.

The Lake Keuka Medical and Surgical Association (organized August, 1900) will hold its fourth annual meeting at Grove Springs, Lake

Keuka, N. Y., Tuesday and Wednesday, August 11 and 12, 1903. Following is the programme: 1, President's Address, by Arthur W. Booth; 2, Some Diseases of the Respiratory Tract, from a Pension Examiner's Viewpoint, by William Warren Potter, of Buffalo; 3, Prostatic Hypertrophy and Similar Conditions, by William B. Jones, of Rochester; 4, Vaccination and its Technics, by Ernest Wende, of Buffalo; 5, Diseased Tonsils Considered as a Seat of Infection in the Causation of Rheumatic and Allied Diseases, by John O. Roe, of Rochester; 6, The Role of Local Sanatoria in the Prevention of Tuberculosis, by DeLancey Rochester, of Buffalo; 7, Blood Examination as an Aid to Diagnosis, by Clayton K. Haskell, of Bath; 8, Pancreatitis, by Hamilton D. Wey, of Elmira; 9, Therapeutics of the Röntgen Ray, by C. S. Greenleaf, of Rochester; 10, Malignant Endocarditis of the Right Heart, by Henry R. Hopkins, of Buffalo; 11, Ophthalmia Neonatorum, by George M. Case, of Elmira; 12, A New Method for the Treatment of Hæmorrhoids, by C. S. Parkhill, of Hornellsville; 13, Perforating Appendicitis, by A. L. Beahan, of Canandaigua, N. Y.; 14, Free Drainage and Ice in the Early Stages of Mastoiditis, by Sargent F. Snow, of Syracuse; 15, Diagnostic Palpation for Prolapse of the Kidney, and Method of Fixation, by Augustin H. Goelet, of New York. First meeting to be called to order Tuesday, at 11:30 a. m.; smoker at Lake Keuka Club, Tuesday evening. Officers: President, Arthur W. Booth, of Elmira; vice-president, Charles M. Van Dyke, of Himrods; secretary and treasurer, W. W. Smith, of Avoca.

PHILADELPHIA AND PENNSYLVANIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

DISEASES	Week end'g Aug. 1.		Week end'g July 25.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	29	3	11	11
Diphtheria	47	1	41	5
Scarlet fever	74	1	73	2
Typhoid fever	109	13	67	11
Consumption	2	47	..	53
Cerebrospinal fever	6	0	..	2

This table shows a decrease of forty in the total of cases of contagious diseases as compared with the preceding week.

The Jewish Hospital.—More improvements are to be made. A new building was recently erected there, and it is understood that already more accommodations are necessary. The grounds are being beautifully laid out and improvements are being made all over.

A Physicians' Office Building.—Since the erection of large office buildings in the central portion of the city many up town physicians have taken quarters in them. A large building on Chestnut Street, west of Broad, has none but physicians as tenants.

Another New Hospital.—One of the largest manufactories of hats is to have a hospital for its employees. The old emergency institution of seven beds at Fourth Street, near Montgomery Avenue, is to be enlarged to contain fifty beds and will be modernized in every respect. Outsiders will be accommodated, when not to the detriment of the employees.

Elwood Palmer Spencer, 2267 Chancellor St., Philadelphia, Pa.;
 Clarence C. Spicher, Hillsdale, Indiana Co., Pa.; Walter George
 Spless, 1239 Germantown Ave., Philadelphia, Pa.; Cl
 packer Stauffer, 4720 Hazel Ave., Philadelphia, Pa.; Robert
 Lowry Steele, McKeesport, Allegheny Co., Pa.; Robert Arm-
 strong Stewart, Lock Haven, Clinton Co., Pa.; Charles Irvin
 Stittler, Anselma, Chester Co., Pa.; Joseph Allen Stotz, 227
 Cattell, Easton, Pa.; George Washington Stoyer, R. F. D. 4,
 Greenville, Mercer Co., Pa.; Arthur Harry Stranbe, 604 Shaw
 St., Philadelphia, Pa.; Edith Subers, 2430 Columbia Ave., Phil-
 adelphia, Pa.; James Hayes Swan, Neelyton, Huntingdon Co.,
 Pa.; Alice L. Swaney, New Cumberland, Hancock Co., W. Va.;
 Matthew A. Swaney, Hookstown, Beaver Co., Pa.; Lawrence
 Lonzo Swogger, New Bedford, Lawrence Co., Pa.; Horace Fur-
 ness Taylor, Westtown, Chester Co., Pa.; John Thames, 1423
 Arch St., Philadelphia, Pa.; Charles Sheridan Textor, Evans
 City, Butler Co., Pa.; Samuel O. Thomas, Patton, Cambria Co.,
 Pa.; Raymond Alta Thompson, Carnegie, Allegheny Co., Pa.;
 Alfred Grant Tinney, 1424 S. 20th St., Philadelphia, Pa.; Wm.
 William Hibbs Tomlinson, 322 So. 10th St., Philadelphia, Pa.; Al-
 bert Roy Trevasaki, Turtle Creek, Allegheny Co., Pa.; J. L. Roy
 Truckenmiller, Catawissa, Columbia Co., Pa.; Charles Ira
 Trullinger, Penbrook, Dauphin Co., Pa.; Linton Turner
 912 Poplar St., Philadelphia, Pa.; Frank Sellers Ullom, Waynes
 burg, Greene Co., Pa.; Joseph Frankenstein Ulman, 1934 West
 York St., Philadelphia, Pa.; Helen Frances Upham, Woman's
 Hospital, Philadelphia, Pa.; William Alonzo Upperman, Ford
 City, Armstrong Co., Pa.; Thomas Calvin Van Horne, 310
 Frankstown Ave., Pittsburgh, Pa.; William Abraham Wash-
 baugh, Grove City, Mercer Co., Pa.; Daniel Aivey Watkins,
 Hagerstown, Washington Co., Md.; Alfred S. Weiss, 409 Chest-
 nut St., Lebanon, Pa.; William F. Weitzel, Hortons, Indiana
 Co., Pa.; Homer Melvin Wellman, Blairsville, Pa.; William Has-
 son Wesley, 359 S. Highland Ave., E. E., Pittsburgh, Pa.; Clar-
 ence H. Westgate, Adrian, Lenawee Co., Mich.; William Berry
 Whetstone, Hosp. U. of P., Philadelphia, Pa.; Sidney G. White,
 344 Shetland Ave., E. E., Pittsburgh, Pa.; Ira Bratton White-
 head, Ryde P. O., Mifflin Co., Pa.; Edwin Elmer Wiesner, Stines
 Corner, Lehigh Co., Pa.; William B. Wilcox, Blackwood, Cam-
 den Co., N. J.; Charles Boyd Williams, New Wilmington, Law-
 rence Co., Pa.; Herbert Heister Wilson, 121 Bank St., Bridgeton,
 Cumberland Co., N. J.; Louis Feuilleteau Wilson, Waterford,
 Loudoun Co., Va.; Charles Joseph Wivell, 258 E. Market St.,
 Wilkes-Barre, Pa.; Arthur Chester Wolfe, 3805 Baring St., Phil-
 adelphia, Pa.; Thomas Kenneth Wood, Munsey, Lycoming Co.,
 Pa.; Nell Gwynne Wright, 1400 Mifflin St., Huntingdon, Pa.;
 William A. Wycoff, W. Penn Hospital, Pittsburgh, Pa.; G. B.
 Yeanev, Clarion, Clarion Co., Pa.; Julia Rose Youngman, New
 England Hospital, Boston, Mass.; Lawrence Anthony Zins-
 meister, 4747 Friendship Ave., Pittsburgh, Pa.

Chicago Health Report.—Statement of mortality for the week ended August 1, 1903, compared with the preceding week and with the corresponding week of 1902:

Noonday Club and Union Hospital.—A bed in the Chicago Union Hospital is maintained by the young women members of the noonday luncheon club. A box is at the cashier's elbow, into which the maidens, their hunger appeased, drop their pennies.

Results of Milk Inspection.—From the laboratory it is reported that the demand by city dealers for the milk inspectors to take farmers' samples at the railroad platforms has been greater than the inspectors could meet. Of the 93 samples which were thus taken 56 were found to be watered, conclusively showing that not all farmers are honest. Restaurant samples taken in the down town district show bad milk. Out of 12 samples taken by one inspector in one forenoon

nine were in violation of the ordinance. Six of the milk samples were skimmed, and one contained formalin. Of five samples of cream two showed adulteration by the addition of condensed milk, one showed 7 per cent. butter fat, which is only half as much as the law requires, while only two were fully up to grade. This should not be interpreted to mean that the entire milk supply of Chicago is in this condition. The inspectors have concentrated their efforts on the worst offenders. Of the 476 samples of milk and cream analyzed 154 were brought to the laboratory by private individuals; the remaining 322 were collected by the milk inspectors. Of the 322 inspectors' samples, 10 were tagged "skimmed milk" and 248 were not tagged, therefore sold for whole milk; of these, 26 were found below grade. Out of 67 samples of cream 13 were found below grade. Per cent. of inspectors' samples of milk and cream below grade 12.

Of the 154 samples brought to the office by private individuals, 117 were milk of which 3 were below grade, and 37 were cream of which 2 were below grade. Per cent. of samples of milk and cream brought to office below grade 3.2. Per cent. below grade, all sources, 9.2.

Out of the 476 samples examined 103 had been watered—84 out of 322 inspectors' samples and 19 of the 154 private samples.

GENERAL.

A State Board of Health for Georgia.—The committee on hygiene and sanitation have reported favorably on a bill to establish a board of health in Georgia.

Proposed Hospital for San Francisco.—The street car men's union of San Francisco has organized a Street Railway Employees' Hospital Association, and has elected ten of its number as a board of directors of the proposed institution.

Ohio Field Hospital.—Dr. E. C. Brush, surgeon general of the governor's staff, has received word from the war department at Washington that \$7,000 has been granted to equip a field hospital for the Ohio national guard.

Medical Society of Virginia.—The annual meeting of the Medical Society of Virginia will be held at Roanoke, September 15th to 17th. President, John U. Upshur, of Richmond; corresponding secretary, John F. Winn, of Richmond.

New Ward in Newport Hospital.—Mrs. Cornelius Vanderbilt has endowed the ward erected to the memory of her husband, in the Newport, R. I., Hospital to the extent, it is said, of \$200,000. It is a handsome and costly structure of Indiana limestone.

Tetanus Antitoxine.—It is reported from San Francisco that the use of antitoxine injected through the skull into the brain has proved successful in the cure of tetanus in a man who was badly burned last May and was subsequently accidentally inoculated.

Memorial Hospital at Richmond Opens.—The new Memorial Hospital at Richmond, Va., was opened on July 27th, twenty-three patients being carried over in carriages, stretchers, and ambu-

lances from the Old Dominion Hospital, which went simultaneously out of existence.

The City Hospital, of Grand Rapids, Mich., has benefited by a decision of the city attorney, that the money paid to the city for the privilege of removing the garbage, some \$1,200 a year, is to be devoted to the enlargement and improvement of that institution.

The Physicians of Grant County, Wisconsin, have organized a county association with the following officers: President, J. Godfrey, of Platteville; vice-president, J. Oetliker, of Platteville; secretary and treasurer, P. L. Scanlon, of Lancaster. The society will meet annually.

Demand for a Contagious Diseases Hospital at Ann Arbor.—The practitioners of Ann Arbor, Mich., represented by an authoritative committee, have petitioned the city council to appropriate \$20,000 to build a hospital for the reception of cases of contagious disease.

Accident to a Physician.—Dr. George W. Winchester, his wife, and eighteen months' old child were thrown out of a carriage recently at Squantum, Mass. Mrs. Winchester's leg was broken, the child's collarbone fractured, and the doctor was cut and bruised about the head.

Changes at the University of Virginia.—Brodie C. Naile, of Culpeper, Va., has been appointed demonstrator of anatomy at the University of Virginia, to replace James B. Bullitt, who has become professor of anatomy and pathology at the University of Mississippi, Oxford, Miss.

More Weed Destruction.—Following the lead of Denver, the health authorities of Savannah, Ga., are stated to have decided that all weeds growing in otherwise vacant lots must be destroyed, as under suspicion of being the cause of hay fever.

St. Louis's New City Hospital, to be completed early next year, will occupy four large, separate buildings, three of which are to be connected by corridors. The hospital is on Lafayette Avenue. One hundred and forty thousand dollars have been appropriated to complete the interior furnishing and decoration.

Glanders in Minnesota.—The State Board of Health of Minnesota, in its forthcoming report, will state that three cases of glanders in human beings occurred in Minnesota during the past year. The first two died suddenly, and the third, a girl employed by the health board, was an invalid over one year.

To Punish Pollution of Water Supply.—The city health department of Colorado Springs has posted notices over the city warning all persons against trespassing on the grounds of the city or in any way polluting the water supply. A fine of from \$150 to \$500 will be imposed for each violation.

To Study Antitoxine Manufacture.—Dr. Theobald Smith, bacteriologist of the Boston board of health, has gone to Europe to study the methods used there in the manufacture of antitoxine. The Governor of Massachusetts has signed a bill authorizing its manufacture and also that of vaccine virus at the Bussey Institute.

Timid Detroit Contractors.—The board of health at Detroit, Mich., is, at the present writing, unable to find a contractor who will undertake to execute the necessary repairs on the city pest house. Four thousand dollars are ready for the man who has had smallpox, or who is otherwise immune, or unafraid.

Catholic Hospital in Marquette.—To replace the hospital that was burned to the ground, some time since, at Marquette, Mich., the priests in retreat at Assinnins have contributed \$25,000, Bishop Frederick Eis subscribing \$5,000. There are still twenty priests to be heard from. The institution will be under Roman Catholic auspices.

Gifts to Cincinnati City Hospital.—Dr. J. C. Culbertson, editor of the *Lancet-Clinic*, has given his handsome medical library, consisting of over four hundred well bound volumes, to the city hospital at Cincinnati. It is said, also, that a copy of the first edition of Boerhaave's *Aphorisms* has been received by the library association from a son of the late Dr. Gustav Bruhl.

Milford's New Hospital.—A new hospital, the gift to the value of \$60,000 of Mr. and Mrs. Eben S. Draper, of Hopedale, was opened on the 25th ult. at Milford, Mass. The exercises took place in the Charles river driving park, for fear of injury to the handsome lawn surrounding the hospital. Appropriate speeches were made, and a programme of sporting events followed.

Soldiers' Home Hospital.—The board of commissioners of the Washington soldiers' home have approved the plans for the enlargement of the hospital attached to the institution. The money for the purpose is derived from deductions regularly made in the pay of enlisted men. The meeting was the last over which General Miles can preside, as he retires next month.

The Central Wisconsin Medical Society held its annual meeting on July 29th, and elected the following officers: President, Edward Evans, of La Crosse; first vice-president, T. V. Nuzum, of Brodhead; second vice-president, L. V. Lewis, of Sun Prairie; third vice-president, W. H. Palmer, of Janesville; fourth vice-president, C. P. Peckering, of Muscoda; secretary-treasurer, C. S. Sheldon, of Madison.

Agamomermis Culicis in New Jersey will be warred upon by Dr. Charles Wardell Stiles, chief zoologist of the Public Health and Marine Hospital Service, at the request of Professor Smith, the State entomologist of New Jersey. The district about Cape May will see the inauguration of the campaign. *Agamomermis* is stated to affect the mosquito much as the hookworm affects man, causing it to lose ambition and energy.

Addition to St. Paul City and County Hospital.—The new contagious diseases ward of the city and county hospital at St. Paul, Minn., will be ready for occupancy on September 1st. The ward is built on the same plan as the New York Lying-In Asylum, the corners and angles of floors and walls being rounded off. There will be private rooms for pay patients. It is asserted that this is the finest ward of its kind in the United States.

Enlargement of Post Hospital.—Plans have been prepared at the office of Major Abraham S. Beckham, constructing quartermaster, for an addition to the post hospital at Fort Washington, Md., that will nearly double its present capacity and render it as complete in its appointments as any hospital in the country. The new cement sidewalks, under construction for several months past, are nearing completion.

"Substitution" in a Certificate.—A manufacturing firm of chemists whose chief product is hydrogen dioxide having issued a circular giving some of the results of the examination of a number of samples of hydrogen dioxide by Dr. Virgil Coblentz, of the committee on revision of the U. S. Pharmacopœia, in which a favorable showing is made for their product, Dr. Coblentz has protested against the use to which his work has been put. In a communication to us, under date of August 4th, he protests that the circular in question contains statements not made, authorized, or sanctioned by him, and an arrangement of figures with appended comments leading to inferences which he entirely disavows. He informs us that he has communicated with the manufacturing firm in question and requested that they cease making and circulating the statements referred to, which he proclaims false and misleading.

The South Dakota State Board of Medical Examiners held their first regular meeting for examinations under the new law on July 8, 9 and 10, 1903, at Sioux Falls. No arrangement for reciprocating with examining boards of other States has yet been made, and licenses were granted only by examination. Twenty applicants, representing eleven colleges in nine States, were present and took the written examination. Eighty questions were asked, and a general average of seventy-five per cent. was required to pass. Each applicant, before being admitted to examination, is required to furnish a sworn statement from two reputable physicians in active practice to the effect that they are well acquainted with the applicant and know him to be of good moral character, good reputation, and good professional standing. Seventeen passed the examination successfully and secured licenses.

A Memorial to the Late Major Walter Reed, M. D., U. S. A.—A meeting will be held at the Hotel Louisburg in Bar Harbor, Maine, on the morning of Saturday, August 15, 1903, at eleven o'clock, to confer with respect to a memorial in honor of the late Major Walter Reed, M. D., U. S. A., to whom the world is indebted for most important services in the investigation and the suppression of yellow fever. Our readers are respectfully invited to be present. Several committees in different parts of the country have already been appointed, and the object of this conference is to secure unanimity of purpose, and concerted action. Addresses may be expected from gentlemen who are well acquainted with all the facts. This invitation is extended in behalf of many friends of Dr. Reed by Daniel C. Gilman, chairman of a committee appointed by the American Association for the Advancement of Science, and S. Weir Mitchell, Edward G. Janeway, William H. Welch, and Christian A. Herter.

Pith of Current Literature.

BRITISH MEDICAL JOURNAL.

1. Erythemata as Indicators of Disease,
By JAMES GALLOWAY.
2. Impressions of the Efficiency of Professor Dunbar's
Antitoxine, By SIR STEPHEN SIMON.
3. On the Desirability of Operating for and the Mortality
from Chronic Pancreatitis, By W. HALE WHITE.
4. The Problems of Cancer, By E. F. BASHFORD.
5. An Experimental Examination of Mesenteric Glands,
Tonsils and Adenoids with Reference to the Presence
of Virulent Tubercle Bacilli,
By ALLAN MACFADYEN and ALFRED MACCONKEY.
6. Note on Antihæmolytic (Hæmozoic) Serum,
By M. ARMAND RUFFER and MILTON CRENDEROPOULO.
7. A Case of Acromegaly, By SIMON SNELL.
8. A Note on the Treatment of Chorea by Ergot of Rye,
By EUSTACE SMITH.

1. **Erythemata.**—Galloway considers that even the so-called simple erythemata are indications usually of vascular disturbances which produce either a certain degree of tachycardia, congested extremities with œdema, chilblains, or in some instances, such serious interference with nutrition that gangrene results and the prognosis is most grave.

As illustrations of erythemata due to protozoal infection attention is called to the eruptions occurring in the various types of malarial fevers, which, however, are irregular in form and not sufficiently characteristic to be identified as indicating malarial infection.

A peculiar and striking form of erythema was observed in two cases of trypanosomiasis which the author saw in England. It was more pronounced during the period of invasion, but was of long duration. The peculiar features were faint color, circinate in form, widely spread upon an œdematous skin, leaving a certain amount of pigmentation. The diameters of the segments of the circles were from one-half to many inches.

The connection between erythema multiforme and the toxæmia produced by imperfect digestion and assimilation, is pointed out, and attention is also called to the fact that not infrequently this form of erythema indicates renal disease. In such cases, it is acute, symmetrical, widespread, tends to vesicate or become hæmorrhagic, and involves the visible mucous membranes.

The author believes that lupus erythematosus has no connection with tuberculosis and regards its cause as a toxæmia arising from various sources just as in erythema multiforme, and that this form is also frequently associated with chronic nephritis.

2. **Antitoxine in Hay Fever.**—Semon presents the impressions received in the treatment of eight patients afflicted with hay fever by means of Dunbar's serum.¹

In each case the remedy was instilled by himself into the eyes and nostrils from once to thrice daily. In no case was there any unpleasant toxic effect. While the remedy was in no sense a panacea in any case, in some it gave relief, postponing the occurrence of the attack. In others, particu-

larly one where asthma was a pronounced feature, the antitoxine failed to relieve the attacks.

The author also noticed that the action of the remedy varied in the same individual at different times. This might be due to the fact that the nervous element predominated at times and overwhelmed the effect of the antitoxine.

The author's conclusion from his experiments so far is, that the main applicability of the serum seems to lie in the direction of postponing for several hours the occurrence of the regular attack, and he thinks it will probably be a valuable addition to the present means of combating hay fever.

3. **Chronic Pancreatitis.**—White does not refer in this article to chronic inflammation of the pancreas due to obstruction to the exit of pancreatic secretion, which may be produced by pressure from a growth or the presence of a pancreatic or biliary calculus, for these conditions are rarely recognized, but to that variety which is associated with jaundice, and is accompanied by pain, tenderness, vomiting, and emaciation.

He opposes the published statement of Robson and Moynihan that "chronic pancreatitis must be treated by abdominal section and drainage—obtained by draining the gall bladder," and believes that many unnecessary operations have been done.

As a proof of recovery without operation he reports a case of his own where the diagnosis was confirmed by exploratory incision, but no operation performed on the organ.

A search of the autopsy records in Guy's Hospital for a period of forty years has also convinced him that chronic pancreatitis is rarely a fatal disease.

5. **Tubercle Bacilli in Mesenteric Glands.**—Macfadyen and Macconkey undertook these experiments in the hope of furnishing additional data with reference to the importance of the digestive tract as a channel for the entrance of tubercle bacilli into the system. The mesenteric glands were on removal placed in a mixture of equal parts of glycerin and saline solution and taken to the laboratory. There they were thoroughly and slowly disintegrated by mechanical means until a sufficiently fluid mass was obtained, which could be injected into guinea pigs. At the end of six to eight weeks any animals which had survived that period were killed and only those considered positive in which the tubercle bacilli were detected microscopically in the lesions presented. All of the patients examined were children under five years except two.

The total number was 28, and of these tuberculous disease was found to exist in 8. The inoculation experiments showed that virulent tubercle bacilli were present in 10 cases, 18 being negative. Of the 8 cases diagnosticated as tuberculous, 5 gave a positive result. Of the 20 nontuberculous cases 5 gave a positive result, or 25 per cent. In nine of the ten positive cases a microscopical examination of the mesenteric glands themselves was negative. The same character of experiments was conducted with 44 cases of removed adenoids and 34 cases of tonsils.

The results in every case were negative, both macroscopically and microscopically.

The virulent organisms found belonged to the group of micrococci.

7. **Acromegaly.**—Snell reports a typical case of acromegaly occurring in a woman thirty-eight years of age, with temporal hemianopsia in whom there was improvement, not only of the general condition, but also the vision from the administration of thyreoid extract in five grain doses twice daily, increased later to thrice daily.

8. **Ergot in Chorea.**—Smith considers ergot one of the best, if not the best, remedy for chorea that we possess. He has administered a drachm of the liquid extract every three or four hours to children of 7 or 8 years old for several weeks, and has never seen any harmful affects, while in the majority of cases the benefits have been marked. In order that the most benefit may be derived from the treatment the child must be kept in bed and the liver and kidneys kept active.

THE LANCET.

July 18, 1903.

1. Diseases of the Ascending Aorta (Cavendish Lecture),
By T. CLIFFORD ALLESTREE.
2. Gastric Ulcer and Its Surgery. (A Clinical Lecture),
By ALBERT CARLESS.
3. A Case of Intestinal Obstruction Presenting Unusual
Features, By GILBERT JAMES ARNOLD.
4. Observations on Mastication, By HARRY CAMPBELL.
5. The Selection of Cases Suitable for the Nauheim Treatment of Chronic Diseases of the Heart,
By LESLIE C. THORNE.
6. The Chloroform Habit Acquired by a Hysterical Woman Resulting in Death, By E. PERCY COURT.
7. The Incidence and Mortality of Croupous Pneumonia in Infancy, By CLIVE RIVIÈRE.
8. A Case of Chloroma, with Clinical History and Account of Post-mortem Appearances, By EDGAR TREVITHICK.
9. Note on a Case of Spurious Hydrophobia (Lysophobia),
By W. S. HARRISON.

2. **Gastric Ulcer.**—Carless inclines to the theory of Gordon that gastric ulcers are inflammatory in character and produced by microorganisms, from the fact that micrococci have been found in the deep tissues around the edges of the ulcers, and because they almost always occur at the pyloric end of the stomach, which is deprived of the inhibitory action of the gastric juice upon pyogenic microorganisms. The indications given for operation are: 1. Recurrence or persistence without obvious complications. 2. Hæmorrhage which persists or recurs and threatens life from exhaustion. 3. Perforation. 4. The formation of a perigastric abscess. 5. Complications arising from contractions produced by cicatrization.

3. **Intestinal Obstruction.**—Arnold reports this case on account of these unusual features: The patient, a medical man, sixty-three years of age, had been twice successfully operated on for volvulus of the sigmoid flexure, once in 1898, and again in 1902. In May, 1903, he had a third attack indicating intestinal obstruction and demanded an operation. This time instead of a vol-

vulus, it was found that a loop of small intestine had passed through the mesosigmoid, beneath the sigmoid flexure, then forward and had become attached to the abdominal wall and thus produced a stricture of the sigmoid. There was rapid recovery after the operation.

5. **Nauheim Treatment.**—Thorne divides the cases into four groups. 1. Those cases which will be cured or very greatly benefited by the treatment. In this group are included (a) the dilated, enfeebled or irritable heart, a sequela of influenza; (b) the enfeebled heart produced by raised arterial tension in those patients suffering from rheumatic or gouty diathesis [for this class a course of treatment every 12 months for two or three years is recommended]; (c) cases of heart enfeeblement from excessive smoking, typhoid fever, malaria, etc.

2. Those cases which cannot be cured, but can be greatly benefited. In this group are cases of rheumatic and gouty origin in which the valves have been permanently injured and there are signs of commencing heart failure.

3. Doubtful cases. This includes the more advanced forms of valvular affections of any origin where the patient is losing ground.

4. Unsuitable cases. (a) Habitually heavy drinkers; (b) those suffering from syphilitic affection of the heart; (c) those with marked degeneration of the vessel walls; (d) those presenting typical symptoms of aortic regurgitation; (e) very old people.

6. **Croupous Pneumonia in Infancy.**—Rivière, after a two years' study of croupous pneumonia among the children at the East London Hospital, both clinically and at autopsy, has reached the following conclusions: (1) That croupous pneumonia occurs in infants below the age of two years as frequently as, and probably more frequently than, in older children; (2) that in infants a diagnosis between croupous pneumonia and bronchopneumonia with labor consolidation is often impossible, many cases of bronchopneumonia with labor consolidation appearing in the post mortem room with a diagnosis of croupous pneumonia; (3) that on account of this difficulty statistics based on diagnosis alone are quite untrustworthy; (4) that this error can largely be eliminated after the manner described (i. e., studying autopsy cases); and (5) that the mortality in croupous pneumonia is largest in the first years of life (25 per cent.), is considerable below the age of two years (15.4 per cent.), but for children above this age is comparatively small (2.3 per cent.).

8. **Chloroma.**—Trevithick has reported a case of this rare and interesting disease in detail together with the post mortem findings.

A girl, aged thirteen years, when first seen, was markedly anæmic and complained of headache and pain in the neck. Later the anæmia became extreme, there was proptosis and a curious broadening of the face due to hard swellings in both temporal regions. Pains had increased and there was delirium at night, and also very obstinate constipation, which could not be relieved by drugs. There were nodular tumors in both

breasts which showed blue through the skin. On the sternum and ribs were hard irregular nodules which were tender. Glands of the neck and groin enlarged. Patient complained of inability to see light with left eye, and the ophthalmoscope showed hæmorrhagic patches in both eyes. The temperature ranged from 99°-100° F., and the pulse though rapid was fairly full. Examination of the blood showed a large increase in white cells. At the autopsy multiple deposits of a bright green material, of the consistency of firm lymph, were found in various bones, lymphatic glands, kidneys, liver, brains, pancreas, thyroid, dura mater, and in the chorioid plexus. Aside from these deposits the organs were fairly normal. Considerable masses were found beneath the temporal muscles and in the orbits which caused the broadening of the face and the proptosis. Microscopically the deposits were made up of cells foreign to the parts. No explanation of the green color is given nor does the author explain the cause of the disease, though he thinks possibly the obstinate constipation might account for it.

9. Spurious Hydrophobia.—Harrison publishes the report of this case which occurred at the Pasteur Institute of India. The patient, a medical student, was bitten by a rabid dog upon the thumb. Antirabic treatment was begun, but seven days after the bite he complained of burning pain in the throat and chest, difficulty in swallowing and became delirious. Intense pharyngeal spasms supervened, the temperature rose to 101.8° F. and the pulse to 120, and at first sight, the case appeared to be one of typical hydrophobia.

This was excluded by the facts that the period of incubation, seven days, was too short; there had been no premonitory symptoms; the pharyngeal spasm did not extend to the respiratory muscles; and examination of the throat with the aid of a tongue depressor was easily made and did not excite spasm of the pharynx.

The administration of fifteen grains of chloral hydrate and twenty grains of potassium bromide produced sleep, and by the following evening the patient was practically well. The antirabic treatment was resumed and no more spasms occurred.

LYON MEDICAL.

June 28, 1903.

1. Clinical, Hæmatological, and Pathological Report of a Case of Progressive Pernicious Anæmia,
By LECLERC and CADE.
2. Infection of the Liver Simulating Abscess, By PATEL.

1. Pernicious Anæmia.—Leclerc and Cade report in detail a case of pernicious anæmia. The autopsy disclosed no particular lesion, but the liver was hypertrophied and the seat of an interstitial steatosis and contained iron pigment. The blood examinations, while they were fairly characteristic, failed to disclose elements which could be useful in differentiating the condition from a secondary anæmia. The examination disclosed a megaloplastic condition, often megalocytic; but it was not possible to correlate the symptoms with the hæmatological examination.

2. Infection of the Liver.—Patel describes two cases in which the patients presented a temperature curve like that of sepsis, and enlarged and sensitive livers. In one of the cases an operation was performed in the belief of the existence of an abscess of the liver; but the organ was found to be red, congested and almost fluctuating, but no pus was discovered. Both patients eventually recovered entirely, the liver returning to its normal size. Patel seeks to explain the origin of these cases in the transmission to the liver by means of the portal vein of infectious material which fails to be destroyed by the liver cells. The cells of the liver may at the time be diminished in vitality, or the bacteria sufficiently virulent to evoke an inflammation without causing the appearance of pus. Both conditions may simultaneously exist. The infectious material usually comes from the intestine, and in the cases cited both patients had partaken of suspicious water.

July 5, 1903.

1. Cytology and Inoculation Experiments with Hydrocele Fluid,
By F. BARJON and A. CADE.

1. Cytology of Hydrocele Fluid.—Barjon and Cade discuss the differences between essential and symptomatic hydrocele. In the former, the finding of spermatozooids is frequent, while in the latter (originating from growths or inflammatory processes), the spermatozooids are never found. Their presence or absence is thus a very important diagnostic element and serves in a measure to clear up the mechanism of essential hydrocele. As to the question of a hydrocele becoming tuberculous, or of the tubercle bacilli or their toxins setting up a tuberculous hydrocele, the authors' experiments have been entirely negative. They inoculated the fluid from fourteen cases into animals and obtained not a single positive result. They do not believe in the tuberculous origin of hydrocele except in rare instances.

REVUE DE MEDECINE

June 10, 1903.

1. Secondary Cancer of the Cerebrum, the Cerebellum, and the Spinal Cord,
By L. GALLAVARDIN and F. VARAY.
2. The Hygiene of Kissing, By CHARLES FÉRÉ.
3. The Palatal Tonsils, and the Uvula in the Tuberculous,
By DR. EDMUNDO E. ESCOMEL.
4. Concerning Nocturnal Urination in Cardiovascular Diseases,
By M. PÉHU.
5. Concerning Congenital Stenosis of the Aorta in the Region of the Isthmus,
By L. M. BONNET.
6. Therapeutic and Experimental Study on Metabenzamido-semicarbazide,
By G. CARRIÈRE.

2. The Hygiene of Kissing.—Féré observes that kissing is not only an expression of sentiment; it is, in addition, the means for exciting and exalting it. The act of kissing produces a physiological excitation apart from all association of ideas, by the simple fact of irritation of the integument. Those portions of the face which are nearest the natural openings are the most sensitive, especially those portions which are contiguous to the lips and the extremity of the tongue. The teeth often enter into the act of kissing, and

especially is kissing unattractive if the lips are unsupported by teeth. If the nasal passages are impermeable or adenoids are present the act of kissing is subjected to unfavorable conditions. The odor of tobacco and certain odors peculiar to certain individuals may render kissing repulsive. Among many savage tribes kissing is not practised. It is a mark of treachery, of disapproval, of veneration, or of religious fervor. It is often the medium by which very infectious diseases are propagated, notably syphilis, hydrophobia, leprosy, pestilence, purpura, itch, etc. The kissing of books or of religious relics is objectionable because unsafe.

Kissing may cause traumatism by the action of suction; thus the skin may be injured, the drum membrane of the ear may be ruptured, the eyelids may be wounded. Children who are compelled to kiss others may acquire such a repugnance to it as to result in painful impressions when they are forced to practise it. The effects of sexual perversion by this means are well known. In a word, kissing is accompanied not only with dangers of traumatism and infection, but with those which are neuropathic, psychopathic, and moral. Promiscuous kissing should be suppressed, and it is especially desirable that an act with such possibilities for evil should not be forced upon children.

3. **The Palatal Tonsils and the Uvula Among the Tuberculous.**—Escomel draws the following conclusions: (1) Tuberculosis of the tonsils is of frequent occurrence and the macroscopic diagnosis of the disease is surrounded with difficulties. (2) The tonsil is more susceptible to the attack of tuberculosis than any other organ in the digestive apparatus. (3) Infection of the tonsil is in the great majority of cases communicated from without. (4) The bacillus of Koch can be found in all parts of the tuberculous tonsil. It is sometimes found in the interior of the tonsil crypts in individuals with whom the general organism shows no evidence of tuberculous lesion. (5) Tuberculous infectoin of the tonsil may be due to penetration of the bacillus into either the lymphatic or the blood current. (6) The crypts of the tonsil and the epithelium which covers them are almost always infected by many species of parasites. The presence of the latter favors the penetration of different pathogenic agents, and this is especially true of the bacillus of Koch. (7) Tuberculosis of the uvula is of rare occurrence.

PRESSE MEDICALE.

July 11, 1902.

1. **Intermediary Eruptions in Gilbert's Rosecolored Pityriasis and in Psoriasiform Seborrhœa.** Some Generalizations on the Development and the Graphic Representation of Dermatoses, By L. BROcq.

1. **Intermediary Eruptions.**—Brocq presents an ingenious diagram in which are shown the relations between rosy pityriasis and psoriasiform seborrhœa. These dermatoses, the distinction between which has been classical, are really related by two groups, through which an eruption may pass from one type to another. The first group, similar to rosy pityriasis, is characterized by an

onset of a primitive plaque, as in Gibert's disease; after a few days, the secondary eruption appears, but shows a greater tendency to invade the face and scalp than pityriasis. The eruptive points are oval, 5 to 15 millimetres along the greater axis, discrete, with a tendency to become eczematous and toward spontaneous cure. The second group resembles more psoriasiform seborrhœa, and begins as a general eruption oftenest in persons until then exempt from skin disease. It does not present the primitive plaque, but the disseminated eruption has the same objective and evolutionary characteristics. Gibert maintains that a similar connective series of links exists between any two given groups of dermatoses. The latter should be distinguished from a true disease, which has a definite ætiology and pathology, as in leprosy, in which Hansen's bacillus is always present, although its manifestations may differ widely in different subjects; whereas in dermatoses, urticaria for instance, the eruption is always the same, while the pathogeny and pathology may be diverse. We classify dermatoses, therefore, by the symptomatology, and must not forget that they are all interrelated. Gibert's hypothesis, summed up, is that each dermatic morbid group must not be thought of as a sphere with exact limits, but is in reality as a sort of nebula of indefinite outline, formed of a number of stars—that is, facts—of which the prolongations more and more indistinct, that is, less and less rich in facts, gradually become blended with the prolongations of the neighboring nebulae, that is, with the neighboring morbid group. While this conception of the relation between the various dermatoses renders their study easier and their diagnosis more exact, we must avoid the error of supposing that any two are quite identical.

MUENCHENER MEDIZINISCHE WOCHENSCHRIFT.

June 23, 1902.

1. **Antistreptococcus Serum and Its Use in Man.** By MENZI.
2. **Explanation of Explosive Shots.** By HILDEBRANDT.
3. **Congenital Change in the Skin,** By L. R. MÜLLER.
4. **Tarring of Streets to Allay Dust.** By M. SCHATTELIUS and GUGLIELMINETTI.
5. **The Galvanocaustic Point in the Treatment of Laryngeal Phthisis,** By L. GRÜNWALD.
6. **Malaria in Northwest Germany,** By A. KÖPPEN.
7. **The Riva-Rocchi Sphygmomanter,** By ALFRED MARTIN.

2. **Explosive Shots.**—Hildebrandt says that the effects of explosive shots are to be referred to the activity of particles incited to movement by the shot, and not to the incitement of an increased pressure. The movements of a flying shot in a fluid medium are exactly the same as those that a more slowly moving mass of the same shape would evoke; and the "backward action" of a projectile is explained by the fact that in a fluid medium the parts directly in front of the projectile are under high pressure and must move in the direction of lesser pressure—that is, backwards. The author considers further physical details with reference to the action of projectiles on fluid and solid media and concludes by asserting that fractures of the

skull from near shots are due to the expansion of the force of the shot in the greatest vicinity of the point of entrance.

3. Congenital Cutaneous Changes.—Müller records two cases of vasomotor disturbances in the skin of congenital origin. In one the greater part of the upper part of the body was the seat of a marble-like discoloration, while the lower left half of the body was the seat of a venous hyperæmia. In cold weather the eruption became more marked, while in warm weather it almost disappeared. The author describes the second case minutely and it does not differ in its general characteristics from the first. He ascribes the condition to segmental disturbance in intrauterine life, in which the metameres are involved. Vasomotor disturbances of the skin may show the same limitations as segmental diseases of the spinal cord or lesions of the spinal ganglia.

5. Treatment of Laryngeal Tuberculosis.—Grünwald reports cures of tuberculosis of the larynx by means of the repeated application of the fine point of the galvanocautery for from five to ten seconds at a time. The object is to reach the deep underlying infiltration without the destruction of the overlying mucous membrane. In one case the existing dysphagia disappeared almost at once. The treatment is highly commended by the author, who believes that many cases would be vastly benefited by it.

June 30, 1903.

1. Simultaneous Appearance of Glucose and Lævulose in the Urine, By A. LYON.
2. Chronic Dystrophy and Trophoneurosis of the Skin, By F. VOLHARD.
3. Traumatic Hysterical Chorea, By R. SCHLÜTER.
4. Tabes and Trauma, By WINDSCHEID.
5. Hæmolysis in Experimental Infections, By O. VON WUNDSCHHEIN.
6. Softened Buboës in Early Syphilis, By M. MARCUSE.
7. Are Purges Dangerous? By Z. VON VAMOSSY.
8. Antistreptococcus Serum and Its Use in Man, By MENZER.

1. Lævulose and Glucose in the Urine.—Lyon reports a case of acute glycosuria following an attack of acute articular rheumatism. It was noted that while the chemical reaction and fermentation processes were very marked, the polarization test was negative. This makes the assumption probably correct that, in addition to the dextrine, a substance which turned the light to the left (lævulose) must also have been present in the urine.

3. Traumatic Hysterical Chorea.—Schlüter suggests this title as more specific and more correct than the general name "traumatic neurosis." He pleads for greater accuracy in the onomatology of nervous diseases.

4. Tabes and Trauma.—Windschied does not regard injuries as the cause of locomotor ataxia, but thinks that they probably evoke the latent disease; or, if it has already existed mildly, they make it worse.

5. Hæmolysis in Experimental Infections.—Von Wunschhein has proved that animals infected with anthrax show at autopsy immediately after death, a purplish red discoloration of the blood serum, a hæmoglobinæmia. This is the sign of a hæmolysis which cannot be traced up to within one hour and a half before death.

6. Softened Buboës in Early Syphilis.—Marcuse says that in these rare cases the lymph glands become softened and are not to be distinguished clinically or histologically from gummata of the glands. On account of their rarity, there is a possibility of confusing them with tuberculosis, actinomycosis, or malignant growths. Antisyphilitic treatment is the best diagnostic test.

8. Antistreptococcus Serum.—Menzer concludes that antistreptococcus serum acts in man as it does in animals, by phagocytosis. The human organism can thus be depended upon to fight well in its battle with the streptococci. The serum seems to offer special use in the treatment of chronic streptococcus infections.

BERLINER KLINISCHE WOCHENSCHRIFT.

June 20, 1903.

1. The Interrelations of Pathology, By LAACHE.
2. Case of Compression of One Ureter, By A. STEYER.
3. Springs of Ems and Uric Acid Excretion, By W. LAQUEUR.
4. New Method in the Preparation of Food Stuffs, By S. WEISSHEIN.
5. Fatal Cachexia Without Demonstrable Anatomical Lesions, By E. GRAWITZ.
6. Immunization of the Organism Against Tuberculosis, By E. MARAGLIANO.
7. Ætiology and Specific Treatment of Hay Fever, By DUNBAR.
8. Tryptophan Reaction and Gastric Cancer, By K. GLÆSSNER.

2. Compression of One Ureter.—Steyer reports his fourth case of this kind. In the preceding ones, he found that the side on which the ureter was compressed secreted a greater relative quantity of urine than the healthy side. In the present instance, occurring in a woman fifty-one years of age, there was a tuberculous stricture of one ureter, and in this case also the urine was of a greater quantity passing from the diseased than from the healthy side.

4. Preparation of Food Stuffs.—Weisshein discourses on Klapfer's method by which the proteids and salts usually lost in the manufacture of starch from wheat, are saved for purposes of human food. The extract of this wheat flour, when dried, can be made into a very wholesome soup, and can be employed for the improvement of the nourishing qualities of bread.

5. Fatal Cachexia.—Grawitz points out that autopsy frequently shows no demonstrable anatomical lesion to account for death from fatal anæmias, while during life the subjects presented no abnormality except an absence of acids in the stomach. He reports the case of a man with exactly these findings, in whom the autopsy disclosed absolutely no lesion, even in the bone marrow and the gastric glands. He calls attention

to the recently acquired knowledge that pernicious anemia is probably due to an intoxication, possibly from the stomach, and the cases referred to are probably to be placed in the same category. It is easily understood that with an absence of free hydrochloric acid, enormous bacterial growth can take place in the intestines, and that curious changes in the digestion of the proteids will follow. The treatment of the condition is self-explanatory.

8. Tryptophan and Gastric Cancer.—Glæssner says tryptophan appears regularly as a product of trypsin digestion, but may also be seen as a by-product of pepsin digestion. It can be recognized by the violet color on the addition of bromine water. The contents of the healthy stomach show no tryptophan reaction, and it is absent as well in the majority of diseases of the gastric mucosa. The author has demonstrated the reaction in normal gastric contents to which a piece of carcinoma has been added. This is probably due to autolytic processes in which the proteids become changed. When the gastric contents of patients suffering with cancer of the stomach were added to normal gastric juices, the reaction appeared only exceptionally. The experiments are not yet concluded.

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

July 3, 1903.

1. Influence of Heat on the Coagulation of Cow's Milk.
By W. SIEBERSCHMIDT.
2. An Acute Trophoneurotic Disease of One Lower Extremity,
By E. GRAWITZ.
3. Diagnosis of Pentosuria.
By M. BIAL.
4. Surgical Treatment of Ascites in Hepatic Cirrhosis,
By G. ZESAS.
5. Treatment of Genu Valgum Infantum by Epiphyseolysis with Subcutaneous Periosteotomy,
By M. REINER.
6. Three Cases of Depression of the Skull in the Newborn,
By H. WEIL.
7. Sanitary Control of the Plague.
By M. KIRCHNER.

2. Acute Trophoneurosis of One Extremity.—Grawitz reports this peculiar case occurring in a girl seventeen years of age. The skin of the entire left lower extremity with the exception of the sole and the toes was atrophied, and there was a dilatation of the superficial veins—not varicose—which gave a red appearance to the skin. This became dark blue if the patient remained standing for any length of time. The patient had some stigmata of hysteria, but was otherwise well. The author regards the condition as a trophoneurosis. It was of very acute origin.

4. Surgical Treatment of Ascites.—Zesas emphasizes the importance of Talma's operation within certain limits, and urges the necessity of not waiting too long. He reports the case of a patient much benefited by the operation and advocates the sewing of the spleen to the wound, as offering a greater superficial surface of attack, a better relation of blood vessels, and the avoidance of formation of intestinal bands.

5. Treatment of Genu Valgum Infantum.—Reiner uses a modified tenotomy knife with

which, in these cases, he incises the fascia on the lateral side of the femur at the level of the distal epiphysial ridge. *Redressment* is then easily accomplished and the extremity is placed in plaster of Paris for six weeks. The author has not observed an complicating injury or any disturbance in the further growth of the bone.

ZENTRALBLATT FUER GYNAEKOLOGIE

June 1, 1903.

1. Etiology of Cancer of the Vagina.
By G. GILBERT.
2. Retroversion of the Uterus and Appendicitis.
By E. NEUGEBAUER.
3. Cervicovaginal Fistula.
By J. GOLDSTEIN.

1. Etiology of Vaginal Cancer.—Maly reports the case of a woman, sixty-seven years of age, who had worn a ring pessary for thirty-nine years. The patient had occasionally removed it for cleaning purposes. When she presented herself, she had a huge cancer of the vagina involving all its walls, which contained a furrow into which the pessary fitted exactly. The case was inoperable. The author points to the long continued wearing of the pessary with its constant irritation as the point of origin of the cancerous growth. He reports six similar cases found in the literature.

2. Retroversion and Appendicitis.—Neugebauer combats the view of Strassmann that the Alexander-Adams operation is contraindicated in cases in which a retroversion has been preceded by one or more attacks of appendicitis. He reports five cases of movable retroversio-flexio of the uterus which were cured by the operation, while each patient had suffered previously from appendicitis.

3. Cervicovaginal Fistula.—Goldenstein narrates the case of a thirty-eight year old woman, who had a chronic endometritis, a parametritis, and a gonorrhœal tumor of the ovary. On the posterior wall of the cervix there was a fistula connecting the uterus with the vagina. The author does not go into the etiology of the condition.

REVISTA DE MEDICINA Y CIRUGIA DE LA HABANA.

May 15, 1903.

1. A New Method of Treatment of Vaginal Hydrocele.
By FRANCISCO ROLDAN.

1. Treatment of Hydrocele.—Roldan describes two modifications in the treatment of hydrocele, which he has devised; the one consisting in a special apparatus for the introduction of medicinal fluid into the sac after evacuation of the hydrocele's contents; the other a new method of suture after the tumor has been treated by incision. The former is made up of a gutta percha cannula, capable of adjustment to any trocar, and a vulcanized rubber tube, thirty centimetres long, which connects the cannula with a graduated glass vessel having a capacity of 150 c.c. After insertion of the cannula into the tumor the fluid is made to flow into the sac by raising the glass vessel containing it above the level of the cannula; and if it is desired to wash out the sac, this may be accomplished by alternately raising the vessel above and carrying it

down below the level of the tumor. The fluid may also be siphoned out of the sac entirely by inverting the vessel and lowering it below the level of the tumor. After evacuation of the hydrocele, it is the author's practice to inject from forty to sixty grammes of a 1 in 100 solution of cocaine, by means of the apparatus described; this is retained for about two minutes, when, anæsthesia having been effected, the vessel is inverted and lowered so that the cocaine is allowed to flow out. Tincture of iodine is then poured into the glass vessel and made to flow from it into the sac. This is retained for from three to four minutes, at the end of which time it is syphoned out and the sac thoroughly washed with sterilized water by alternately raising and lowering the glass vessel containing it. This whole procedure is accomplished without withdrawal of the cannula. The author's method of closing the wound after radical treatment of hydrocele consists essentially in two rows of continuous sutures; one for the vaginal sheath, the second for the skin. One end of each suture is first attached to a small piece of drainage tube. Then each one is passed through a needle at its opposite end. These are now carried through the skin about two centimetres from one extremity of the incision; the drainage tube lying upon the surface of the skin and holding the ends of the suture. One suture now closes the vaginal layer and is brought out through the skin at the opposite extremity of the incision also two centimetres from its beginning. The second suture now closes the cutaneous wound, and with the first, is tied to a second piece of drainage tube. After healing has taken place, both sutures may be simultaneously and painlessly removed by cutting the attachment of the sutures to the drainage tube at one end and drawing upon the opposite end. A complete review of the various methods of treatment of hydrocele, together with several diagnostic points, is presented by the author.

GAZZETTA DEG' I OSPEDALI E DELLE CLINICHE.

June 7, 1903.

1. Researches on Vassale's Paragangline in Gastrointestinal Atony.
By UMBERTO BACCARANI and AUGUSTO PLESSI.
2. On the Agglutinating and Antitoxic Power of Normal Horses and Horses Immunized Against Tuberculosis.
By TITO CAFFARENE.
3. The Ambulant Treatment of Varicose Ulcers.
By GINO MONTARDO.
4. A New Instrument for Urethral Injections in Blennorrhagia,
By GIOVANNI FRANCESCHINI.

1. Vassale's Paragangline.—Baccarani and Plessi give the result of a long series of chemical and experimental researches with paragangline, the name proposed by Vassale for an extract of the medullary portion of the suprarenal gland of the ox. The action of this substance is not impaired by the influence of the gastric juice. It is well borne in doses of from forty to sixty drops daily, in a little water, after meals or between meals. The dose named is to be given in three or four parts, so as not to produce any general disturbances. Baccarani and Plessi found that paragangline acted very effectively in atonic con-

ditions of the stomach and intestines, relieving flatulence, pain, fulness in the stomach, and the escape of gas after eating. The tone of the stomach is improved and digestion is favored by this remedy. It may also be given in the form of enemata in doses of from thirty to fifty drops of paragangline to 150 c.c. of water for atony of the gut. It also improves and cures general asthenia, and in the majority of cases its effect both on digestion and on asthenia continues after the remedy has been discontinued. In some cases the relief of digestive disturbances and of general asthenia is so prompt after the administration of paragangline, that it seems that in these instances the primary cause was an insufficiency of the medullary portion of the suprarenal capsules. If administered in fractional doses for a considerable length of time paragangline does not exhibit any cumulative effects.

2. Horses' Serum in Tuberculosis.—Caffarene finds that the serum of normal horses has no agglutinating value whatever, and that it does not possess any antitoxic properties. He finds, however, that the serum of horses immunized against tuberculosis has a strong agglutinating value, in the proportion of one part to four hundred. The serum of normal horses, although devoid as such of agglutinating and of antitoxic powers, becomes endowed with these properties on the addition of even small amounts of serum of horses immunized against tuberculosis. The technics of the agglutination reaction is the same as that followed by Arloing and Courmont, *i.e.*, using special homogeneous cultures of tubercle bacilli. The antitoxic serum for these experiments was furnished by Maragliano.

3. Ambulant Treatment for Varicose Ulcers.—Monzardo believes that very good results can be obtained with the following treatment for varicose ulcers of the leg, without confining the patient to bed for any length of time. With the usual methods a perfect rest is absolutely essential, and this is not always possible. The leg is well washed and disinfected, especially about the ulcer, the latter is covered with a mixture of starch, zinc oxide, bismuth, burnt magnesia, and boric acid, and is covered with aseptic gauze. This dressing is held in place by means of a few turns of bandage. A starch bandage is now applied from the foot upward. It should not be too tight, but should produce some compression. If the ulcer is large, secretes much pus, and is surrounded by eczematous areas, the limb is kept at rest first for about eight days, during which an effort is made to diminish the secretion and the size of the ulcer. For this purpose applications of soap and water are made during the first three days, salicylic acid compresses during the next few days, and fomentation of lead water next for a day or two, the leg being slightly elevated during the whole week. Then the treatment described above may be applied, and the patient allowed to walk with the starched bandage on the leg. The circulation is improved by walking and thus facilitates cure.

4. New Urethral Injection Syringe.—Franceschini has devised a small syringe consisting of a soft rubber bulb and a short blunt tip which has at its junction with the bulb a side opening leading to an outflow tube. The tip and side arm are of glass. The rubber bulb holds about one hundred c.c. When the injection is made the syringe is held with the side arm closed with one finger and the bulb is compressed with the other fingers. The anterior urethra having been distended by the entering liquid, the side arm is opened by removing the finger over it, and the anterior urethra is irrigated by a flow of liquid from the bulb into the canal and from the urethra back into the side arm which does not communicate with the bulb. When it is necessary that the patient should irrigate the posterior urethra he is told to hold the side-arm closed with one finger during the injection, and so to force the fluid to remain in the urethra, passing the urethral compressor. In a short time about two hundred c.c. or more of fluid may be made to pass through the urethra by the patient himself, by simply refilling the bulb and repeating the operation. The small size of the instrument makes this syringe easily transportable by the patient. The effect of these injections is identical with that obtained with Maiocchi's larger instrument. The solutions used were as a rule potassium permanganate in the strength of 1:4000 up to 1:2000.

PRAKTICHESKI VRATCH.

May 24, 1903.

1. Cases of Incised and Lacerated Wounds of the Stomach and Intestines, By B. K. FINKELSTEIN.
2. On the Influence of Hypertrophy of the Lymphatic Ring of the Throat in General and of the Adenoid Tissue of the Pharynx in Particular, on the General Health of the Patient (*Concluded*), By V. I. NIKITINE.
3. Diphtheria and Diphtheria Bacilli in Scarlet Fever (*Concluded*), By V. I. BOINOFF.

1. Penetrating Wounds of the Abdominal Viscera.—Finkelstein reports two cases of stab wounds in the abdomen. In one of these there was no doubt as to the fact that the wound penetrated the intestines, as the latter were extruding from the incision. In summing up, the author says that, while the probabilities against a penetration of a stab wound into the intestines or stomach are 70 per cent., yet we have no means in many cases of telling from the first whether penetration has taken place, and therefore immediate laparotomy should be performed in all cases of stab wounds of the abdomen, without waiting for symptoms of perforation to appear. This doctrine seems to him the only rational one, but unfortunately there are still surgeons who advise waiting for the signs of perforation to appear.

2. Adenoids and Hypertrophic Tonsils and General Health.—Nikitine shows that the presence of adenoids or of hypertrophic changes in the other lymphatic tissues about the nose and throat, is fraught with dangers to the general health, not only of children but also of adults, and that therefore the treatment of these conditions should not be neglected.

3. Diphtheria and Scarletina.—Boinoff shows

that in 18 per cent. of healthy persons who have come into more or less close contact with patients affected with scarlet fever there are diphtheria bacilli in the throat. Scarletina does not favor, but hinders, the development of diphtheria during the period of eruption and angina of the former disease. In 2.7 per cent. of all patients admitted with scarlet fever there were Klebs-Loeffler bacilli in the throat. The diagnosis of a coexistence of scarlet fever and diphtheria can only be made on the basis of a combined clinical and bacteriological examination. The coexistence of these diseases from the first is very exceptional occurring in but one per cent. of cases. The severity of the disease does not necessarily favor the coexistence of diphtheria in scarlet fever. In the later stages, scarlatina does not predispose to diphtheritic infection. The attendants may serve as transmitters of infection with diphtheria to the scarlet fever patients. Scarlet fever patients who become infected with diphtheria must be speedily isolated in special rooms, and even those that have diphtheria bacilli in the throat without any clinical signs of diphtheria should be kept in separate rooms under close observation, although, in the author's experience, these cases did not transmit diphtheria.

AMERICAN MEDICINE.

August 1, 1903.

1. Appendicitis as an Incident in Development, By WOODS HUTCHINSON.
2. Bradycardia as a Symptom. By ROLAND G. CURTIN.
3. A Study in Astigmatism, By ARTHUR G. BENNETT and J. C. CLEMESHA.
4. The Teaching of Personal Hygiene, By WALTER L. PYLE.
5. An Ideal Method for Drainage in Cholecystotomy, By ALOIS B. GRAHAM.
6. A Case of Metastasis of Mumps to the Brain, By H. E. WRIGHT.
7. The Present Methods of Education from the Standpoint of the Physician, By JOSEPH TOMLINSON.

1. Appendicitis.—Hutchinson is a firm believer in the Ochsner method of treating appendicitis. He attempts to explain the favorable results obtained by studying the comparative anatomy of the appendix and its physiological functions. The appendix in man, he concludes, is nothing more than a once useful part of the gut in herbivorous animals, and being of no special use to man, Nature is in process of eliminating it. This process of elimination occurs, not only as a feature in the general evolution of man, but it occurs in the life history of every man. From fifteen years on, a small but constantly increasing percentage of all appendices is found to be either obliterated or to have the lumen cut off from the gut. In view of the success of the Ochsner method of treating fulminating appendicitis, and the tendency of the appendix to become obliterated, would it not be reasonable to wait in all cases for the second attack before operating? The author does not think that this doctrine should, for the present at least, be preached to the laity.

2. Bradycardia.—Curtin notes an increasing interest in the study of this symptom. It cannot, from what we know of it, be considered as a dis-

ease. The author has noted it repeatedly in cases of influenza; both in cases in which the temperature was subnormal and in cases in which the temperature was high. He believes that in many cases bradycardia is an indication of nerve exhaustion. The value of bradycardia as a diagnostic sign is very small as it occurs in too many diseases. In prognosis its value is greater. If it occurs in a patient whose constitution has not been undermined by disease and if the primary cause of the slow pulse is gradually disappearing, then bradycardia need not be regarded as of serious import. On the other hand, if it is associated or caused by a depressing chronic condition, especially of the cardiovascular system, it becomes a most serious symptom. When accompanied by anginal symptoms it is frequently followed by sudden death.

3. Astigmatism.—Bennett and Clemesha have made a careful study of 7,665 cases of astigmatism and have illustrated their findings graphically in quite an elaborate way. The present paper is preliminary, and they hope to study their subject further. It is not advisable to attempt to draw conclusions from so few cases. When it is considered that the eyes must be classified under 224 heads, for the purpose of their study, the authors' assertion that the records of at least 100,000 cases must be obtained before conclusions are drawn will seem reasonable enough.

5. Drainage in Cholecystotomy.—Graham speaks highly of Cook's method, which is as follows: A drainage tube of large calibre and firm sides is stitched into the wound. Its distal end is allowed to project from an inch and a half to two inches beyond the wound. To this end is tied an extra large condom or rubber bag which acts as an accessory gall-bladder. The bag is removed once or twice a day and emptied and cleaned. The usual dressings are applied about the wound.

MEDICAL RECORD.

August 1, 1903

1. Chronic Postdiphtheritic Laryngeal Stenosis as a Cause of Persistent Intubation of the Larynx,

By HENRY W. BERG.

2. Two Cases of Congenital Elevation of the Shoulder, with a Review of the Reported Cases.

By RUSSELL A. HIBBS and H. CORRELL-LOEWENSTEIN.

3. Life and Its Physical Basis, By AXEL E. GIBSON.

4. A Signal Test for Color-blindness,

By PERCY FREDENBERG.

1. Laryngeal Stenosis.—Berg bases his study on the cases that have occurred in the Willard Parker Hospital, between January 1, 1901, and April 1, 1903. The total number of intubation cases was 578; the total number of recoveries was 221, and the number of persistent tube cases was 17. Three of these patients were removed from the hospital for outside treatment. Of the fourteen cases treated at the hospital five have died, seven have been discharged as cured, and two are still under treatment. So much for statistics. Regarding instruments the author is of opinion that "none but the properly constructed O'Dwyer tubes and accessories are *proper*." Some of the

so-called improved tubes are positively dangerous for reasons which the author discusses. For purposes of study, cases requiring prolonged intubation, may best be divided into three classes. (1) Cases of prolonged stenosis in which the original conditions which necessitated the intubation persist beyond the usual length of time. Such cases are best classed as *protracted* cases. (2) Cases of prolonged stenosis, due to pathological changes which have arisen during or subsequent to the primary intubation and are not those of the diphtheritic process which necessitated the primary intubation. Such lesions are due (a) to the injurious effect of the intubation tube upon the structures of the larynx, glottis or trachea; (b) to traumatism produced by the operator either during intubation or extubation. (3) Cases of persistent intubation due to paralysis of the vocal cords: (a) temporary paralysis or spasm; (b) persistent paralysis. The cases that fall in classes 2 and 3 are those that should properly be denoted as *persistent* tube cases, and are the kind of case the author studies. The length of time that the tube was worn in these cases was from two months and a half, in the shortest case, to eighteen months in the longest. We cannot follow the author into all the ramifications of his subject, but can only point out the chief causes of persistent intubation. (1) The most important factor is "pressure sores," or as the Germans call them "decubitus." These lesions may heal without injurious consequences and very often do. Yet at times, following extubation, decubitus may give rise to swelling of the surrounding tissues and stenosis. This requires reintubation which further aggravates the sore and the subsequent extubation must again be followed by intubation or asphyxia will take place. So the process goes on. The formation of scar tissue eventually occurs and the subsequent contraction gives rise to stenosis. Smaller and smaller intubation tubes have to be used and eventually more or less complete atresia will result. Atresia may also result from the growing together of two opposite sores. There are no symptoms by which, during life, decubitus can be positively recognized before the advent of its consequences. However, if late autoextubation occurs after repeated intubations, decubitus is certainly present. (2) The next most frequent cause is stenosis due to traumatism produced by the operator during either the process of intubation or that of extubation. Such traumatism may heal readily. Yet, slight abrasions may give rise to serious chronic stenosis. The chief causes of such traumatism are twofold: (a) Improper modifications of O'Dwyer's instrument; and (b) lack of expertness on the part of the operator. (3) A third cause of persistent intubation is paralysis of the vocal cords, generally due to pressure. Prognosis is dependent on the specific condition. In cases of *protracted* intubation the prognosis is usually favorable. In cases of *persistent* intubation, if the trouble is due to stenosis, about 60 per cent. of the cases may be cured; if the trouble is due to paralysis of the vocal cords the prognosis is usually bad. The author discusses at some length the best methods of treatment for the different conditions.

2. Congenital Elevation of the Shoulder.—Hibbs and Loewenstein have collected sixty-one cases from the literature and report two cases that have come under their personal observation. They suggest the following classification: Class 1. Cases with a bony bridge between the scapula and vertebral column. References are given to thirteen such cases. Class 2. Cases with an absolute absence of one or more muscles forming the shoulder girdle. References given to five such cases. Class 3. Cases with a long and turned over supraspinous portion of scapula. References given to five such cases. Class 4. Cases without bony overgrowth, the scapula normal or smaller, with shorter or otherwise defective muscles. References given to 32 such cases. The authors review the various theories that have been advanced to account for the condition. They are of the opinion that the cases included in the three first groups are of congenital origin. The cases in the fourth group are probably of various origins. Treatment. In the first and third class the only rational course is to resect the bony bridge or bent forward piece of bone. The second and fourth class must be treated by means of orthopædic appliances.

4. Test for Color-blindness.—Fridenberg asserts that the Holmgren test is not adequate for practical purposes. It should be supplemented by a lantern test. He has devised a lantern which is intended to reproduce service conditions on a diminished scale. A description of the lantern is given.

BOSTON MEDICAL AND SURGICAL JOURNAL.

July 30, 1903.

1. The Shattuck Lecture before the Massachusetts Medical Society, June 9, 1903; The Sources, Favoring Conditions and Prophylaxis of Malaria in Temperate Climates, with Special Reference to Massachusetts, By THEOBALD SMITH.
2. Problems of Clinical Anatomy, By THOMAS DWIGHT.
3. The Need of a Supplementary Lantern Test for the Proper Examinations of Color Preceptions, By CHARLES H. WILLIAMS.
4. Effort to Abate the Mosquito Nuisance in Brookline, By H. LINCOLN CHASE.

1. **Malaria.**—Smith's article is to be concluded in the next number.

2. Clinical Anatomy.—Dwight calls attention to a number of anatomical variations from the normal due either to congenital or postnatal causes. The importance of such variations lies in the fact that unless they are kept in mind they may lead to a faulty diagnosis. This is especially true in the case of superfluous bones or incomplete ossification or union of the centres of ossification. The x ray is, in this connection, especially apt to deceive. As an example: It is the fashion now to diagnosticate fractures of the scaphoid bone of the wrist. The author believes that a normal scaphoid is only broken under the most extraordinary circumstances. What in reality occurs is the separation into two parts of a bone composed of two pieces united merely by cartilage.

3. The Examination of Color Perception.—Williams asserts that testing color perception by means of the Holmgren test alone is not a sufficiently accurate method for practical use. He has devised a lantern, which he describes, for supplementary use in making tests. This lantern has already been adopted by a number of prominent railroads. It consists essentially of a disc, carrying eighteen pieces of colored glass, so arranged that it can be revolved before the lights, of which there are two. One or two of the pieces of glass can be illuminated at the same time. An adjustable shutter makes it possible to regulate the size of the light beam. At a distance of twenty feet the area of the biggest opening corresponds to the apparent size of a standard switch light at a distance of 160 feet, and the smallest opening to such a light at a distance of 1,300 feet. For the form of lantern in which electricity is used for illuminating there is a device by which the intensity of the light may be regulated.

4. The Mosquito Nuisance.—Chase gives the results observed and the methods adopted by the Brookline Board of Health in its war against mosquitoes. The experiment was conducted on such a small scale and for such a short period of time that details and conclusions are out of place. Yet the paper will be of value to all who have a small mosquito war in contemplation. The results obtained may be judged by the willingness of the board of health to furnish the necessary money. For the season of 1901, about \$200 were appropriated; for that of 1902, about \$400; and for that of 1903, \$1,000. The equipment employed and the methods of work are given in full detail.

MEDICAL NEWS.

August 1, 1903.

1. Fœtal, Congenital, and Infantile Typhoid, By JOHN LOVELL MORSE.
2. Some Cases of Prostatectomy, Observed After an Interval, By ALEXANDER B. JOHNSON.
3. Case of *Bothriocephalus latus* in a Woman Immigrant, with Remarks on the Occurrence of this Parasite in America, By WILLIAM N. BERKELEY.
4. Hernia, By S. W. S. TOMS.
5. Thiolol, By J. LEFFINGWELL HATCH.
6. On the Specific Coagulins in the Tissues of Vertebrates and Invertebrates, By LEO LOEB.
7. Pustulation and Its Accompanying Secondary Fever a Complication and not an Essential Symptom of Smallpox, By JENNIE G. DRENNAN.

1. **Typhoid.**—Morse distinguishes between fœtal and congenital typhoid as follows: The term fœtal is applied in those cases where the infants are born dead or die at birth, while congenital is applied in cases where they are born alive and suffering from typhoid. He believes the following assertions to be justified: (1) The typhoid bacillus may be transmitted through an abnormal, and possibly also through a normal, placenta, from the mother to the fœtus. The resulting infection is in the nature of a general septicæmia and does not present the classical symptoms of extrauterine typhoid. (2) The fœtus usually dies before or soon after birth. If, however, the child should not perish too soon, some of the pathological lesions of typhoid

may be made out. Some imperfectly reported cases suggest that at times recovery may possibly occur. (3) Infection of the foetus by a typhoid mother does not necessarily occur. It is possible, though there is no proof of it, that a foetus may go through an infection *in utero* and be born alive and well. (4) Infantile typhoid fever, so far as our present knowledge warrants the drawing of conclusions, has the same symptomatology as the typhoid of adult life. It is actually, and not merely apparently, less frequent in the very young than it is in adults. There is so far no satisfactory explanation for this. Theoretically infants should be more liable to infection than adults.

2. **Prostatectomy.**—Johnson reports four cases of prostatectomy, all of which, after varying periods of time after operation (on an average two years), showed gratifying results. His method of operating resembles the one suggested by Bryson, of St. Louis, in 1898. Essentially the method is as follows: Two incisions are needed. The first, two inches long, is made vertically just above the symphysis into the prevesical space. Two fingers of the left hand, inserted through this opening, enable the operator to force the prostate into the perineal wound, thus bringing it, usually, within sight. Incidentally this manoeuvre materially controls venous hæmorrhage. The second incision needed is a curvilinear one, with the convexity forward and extending from one tuberosity of the ischium to the other. The remaining steps of the operation need not be described, as they do not materially differ from the usual methods of enucleating the prostate. To avoid infecting the suprapubic wound rubber gloves are worn and changed during the operation as needed.

3. **Bothriocephalus Latus.**—Berkeley reports one case. He has not been able to find the record of a single case of unquestionable endemic origin in the United States or Canada. The case reported has no special feature that need be noted. The woman, who had been harboring the parasite for at least eight years, was in fairly good health and suffered only from a few vague belly symptoms.

4. **Hernia.**—Toms's paper is a formal disquisition on hernia. He asserts that in children under two years nearly all hernias can be cured by mechanical appliances. He deprecates the carelessness with which physicians turn their hernia patients over to the nearest druggist to be fitted for a truss. If a patient must have a truss it is the physician's duty to see he gets a good model and a good fit. Operations are usually the most satisfactory modes of treatment. The mortality is, in most cases, so low that it can almost be disregarded.

7. **Smallpox.**—Jennie G. Drennan has very strong beliefs concerning the various phases of smallpox. These beliefs are set down, in rather picturesque fashion, as if they were well authenticated facts. The life history of the germ of smallpox within the body of man is set forth with much detail and the manner in which the human body reacts is fully explained. Incidentally the whole theory of antitoxines is demolished. There is no such thing as an antitoxine. "The serum injected in diphtheria is the serum of the blood containing the toxins of the diphtheria microorganisms."

EDINBURGH MEDICAL JOURNAL.

May, 1903.

1. Public Health Administration in Fife—A Ten Years' Retrospect, By T. G. NASMYTH.
2. Insanity in Relation to Fertility, By JOHN MACPHERSON.
3. The Selection of Cases of Pulmonary Tuberculosis for Sanatorium Treatment, By T. N. KELYNACK.
4. Primary Acute Miliary Tuberculosis of the Conjunctiva, By G. A. BERRY.
5. The Nervous Affections of the Heart. Second Series. Lecture II. Disturbance of Rhythm, By G. A. GIBSON.

2. **Insanity and Fertility.**—Macpherson, who is commissioner in lunacy for Scotland, produces statistics which show that while the population of Ireland has decreased in fifty years by 31.9 per cent., the number of the insane has increased 198 per cent. The depletion of the population, he shows, chiefly affects its sexually efficient units, and by so doing tends to lower the marriage rate among the remaining sexually potent units in the population. The growing disinclination to marriage is one of the most observable features in the vital statistics of the country. Having shown this diminished fertility of the population, the author brings forth other statistics accompanied by arguments that lead to a strong presumption that this diminished fertility tends to favor the occurrence of such constitutional affections as insanity. He refers to the theory propounded by Professor Karl Pearson, and designated by him the theory of "genetic selection." And he quotes "Fertility is not uniformly distributed among all individuals, but for stable races there is a strong tendency for the character of maximum fertility to become one with the character which is the type." If, then, the character of fertility *per se* is correlated with some particular, normal, mental, and physical characters, the persons possessing those characters plus the character of fertility will modify any race in which they live. This implies that the character of fertility is hereditary. Correlation between fertility and any mental and physical characteristic is highly important. Stable races are, therefore, largely the product of the typical or most frequently recurring members, and not of all the individual members in proportion to their number. The modification of the stability of a population through any cause, necessarily acts injuriously upon the formation of the type and predisposes toward variation in unfavorable directions. The most direct adverse modification is therefore, undoubtedly, infertility, which at once begins to interfere with the building up of any favorable type of population. In this respect the more rural portions of Ireland are particularly influenced adversely, for not only are the birth and marriage rates diminished, but the product of the typical population is being rapidly deported to other countries. May it not be possible, also, that the more fertile units in the population emigrate in greater numbers than the less fertile? The decreasing marriage rate seems to countenance such a supposition. Were that the case two important results would follow: (1) The hereditary character of fertility in certain sections of the population would temporarily be reduced, it might be seriously so; and (2) these sections of the population

would suffer from the withdrawal of those normal, mental, and physical characters which are necessarily associated with the character of fertility.

3. Pulmonary Tuberculosis and Sanatorium Treatment.—Kelynack asserts that pulmonary tuberculosis is one of the most curable of the chronic infectious diseases. He believes, however, that there is an over sanguine confidence in the beneficial effects of hygienic treatment, and insists that by such procedure we are adopting no "specific treatment," but relying solely on the employment of those rational and natural measures which careful recognition of clinical facts and intimate realization of pathological data have demonstrated to be scientifically correct. In the use of hygienic measures, however, we are still in the experimental stage and, unfortunately, by extravagant advocacy, unreasoning confidence, and the want of proper care in the selection of suitable cases, this best method known to medical science for the effectual treatment of consumption is in danger of being discredited. It may be safely said that in the case of the majority of sufferers, the hygienic treatment of consumption can only be effectually carried out in a suitably constructed and effectually conducted sanatorium. We should not by any means, however, decry the advantages of treatment by natural methods carried out at home under the supervision of a well-informed and conscientious practitioner.

The author carefully distinguishes between a "pathological cure" and an "economic arrest," the former being available by an impossible expenditure of time and money; but degrees of economic rest even now—with all our limited opportunities—being not infrequently attained. A certain degree of arrest may often be accomplished by a comparatively short residence in a sanatorium. It is, therefore, particularly desirable that it should be our earnest care to detect the first manifestations of disease, and assure for such the earliest possible application of hygienic methods. He adverts to the fact that, in only too many instances, the beds in public sanatoria become occupied by advanced cases for whom the six weeks or three months residence permissible can bring only a temporary measure of alleviation; while large numbers of incipient cases, which by a short period of treatment and training might be educated in the conduct of a hygienic life and restored to take a place among the workers of society, are debarred from such opportunities. The most favorable cases for sanatorium treatment are full grown, well built adults, with normal development of chest, good breathers, without antecedent disease, of healthy stock, and trained in such occupation as does not necessarily expose to non-hygienic conditions. A calm, hopeful, orderly, and obedient patient makes the happiest inmate of a sanatorium. The continuance of menstruation is generally considered a good sign. Many cases in which the onset is acute do well. Cases in which pleurisy and hæmoptysis are among the initial manifestations often do remarkably well. More attention should be paid to local treatment of diseases of the larynx. Subjects below puberty and of advanced stage are unfavorable. The

typical low-class town dweller is peculiarly disappointing. Subjects, particularly females, who break down at or about puberty, do poorly, even under the best hygienic conditions. Cases in which signs of bronchial involvement persist are unfavorable. A persistently rapid, irregular, low tension pulse is a bad sign. With evidence of a more generalized tuberculosis the outlook is most serious. Examination of the sputum offers but little assistance in the actual selection of cases.

Every case should be studied individually and considered on its own merits. The reports containing clinical data, presented by an applicant for admission to a sanatorium are of little value, and it would also be wise if medical men responsible for the conduct of public institutions were to come out boldly and assert that in very many instances it is impossible to state with anything like certainty what the course of a case may be by merely one examination in an out patient department, often after the patient has been fatigued by a long journey, wearied by too much waiting, excited by the unaccustomed surroundings, and frequently depressed by the presence of strangers and other circumstances.

MONTREAL MEDICAL JOURNAL

May, 1903.

1. The Uniformity of Inflammatory Disease,
By JAMES M. MCGRAE.
2. Multiple Primary Tumors in the Stomach and Mamma, Combined with Tuberculosis of the Pleura and Peribronchial Glands, with Some Remarks on the Question of Multiple Primary Growths in General and the Association of Tuberculosis and Carcinoma,
By ALBERT G. NICHOLS.
3. The Early Diagnosis of Pulmonary Tuberculosis,
By HUGH M. KINGHORN.
4. Two Practical Deductions from a Living Case of Tendon Grafting for a Deformity Resulting from Anterior Poliomyelitis,
By A. MACKENZIE FORBES.
5. A Case of Acromegaly,
By RICHARD KERRY.

1. Uniformity in Inflammation.—McCrae makes a plea for the study of the uniform phenomena of inflammation, whether underlying syphilis, tuberculous processes or "degenerative" changes. The difference between an acute inflammation and a degeneration depends upon the strength of the irritant. The changes of inflammation may be rapid, slow or almost imperceptibly slow, but their sequence never varies. The author objects, therefore, to the emphasis laid upon the mere degree of inflammation, and to distinctions based upon inflammatory products, pus, "membrane," etc.

5. Acromegaly.—Kerry's patient presented himself for disturbance of vision, and while examining the sphenoidal sinus for empyema, attention was drawn to the thickened uvula, tongue, and fauces. Further examination disclosed enlarged nasal cartilage, thick lips, kyphosis of upper dorsum, a round and protuberant abdomen, enlarged hands and feet, a dull and listless air with slow cerebration, although intellect was not impaired. Thyroid extract was prescribed in Montreal, and pituitary substance and iodothylin, subsequently in Berlin, with excellent results in every way, save that vision was not improved.

Letters to the Editor.

THE LATE DR. PARIS BROWN PARKER.

CINCINNATI, July 24, 1903.

To the Editor,

Sir: It was with the most profound sorrow that I read of the death of my classmate, Dr. Paris Brown Parker, as chronicled by the *Journal*. By the demise of this young man, at the very threshold of his career, the medical fraternity loses a member of no ordinary ability, one who was wrapped up body and soul in his chosen profession. Hard working, conscientious, and extraordinarily bright, Parker was beloved by all who knew him, being at all times kind, considerate, and gentlemanly. That his early death may be attributed to his earnest desire for medical knowledge will, I think, be conceded by those who could not but have remarked his continuous and close application to work, even while his classmates were engaged in recreation. It is indeed sad that his life, which promised so much, should be ended so untimely. That the soul of Dr. Paris Brown Parker may find eternal rest in the great beyond is the prayer of one who admired his sterling qualities and deplores his loss. EDWIN J. KEHOE.

VALVOTOMY FOR OBSTIPATION.

CLEVELAND, O., July 28, 1903.

To the Editor,

Sir: Obstipation was defined as obstinate constipation until accurate knowledge of the anatomy and of the function and of certain diseases of the rectum justified a refinement of diction. The word constipation should be regarded as a generic term, and the word obstipation should be, and now is by recognized proctologists, applied to a variety of the condition which is miscalled constipation by Dr. Charles B. Kelsey in his recent editorial in the *Journal* of July 25, 1903, entitled *Internal Proctotomy for Constipation*. Constipation means a cramming together, while obstipation means a cramming against. Anatomical and pathological evidence now adduced by many observers, as well as the derivation of the words, justifies this refinement of nomenclature. Therefore, that form of obstructed defecation which is due to the presence in the rectum of an organic obstacle to the descent of the fæces may be called obstipation.

Dr. Kelsey said: "The expression hard fibrous and enlarged rectal valves is finding its way into the literature, but when anything hard and fibrous is found obstructing the calibre of the rectum it will not be an enlarged rectal valve causing chronic constipation. It will be a stricture of the rectum with the same pathology as all other strictures, and to be treated in the same way; and internal proctotomy for this condition, except when very near the anus, is attended by a higher mortality than complete extirpation by any of the recognized methods. The mechanical obstacles to the passage of fæces through the canal are well recognized and are grouped under two general heads—those arising from pressure from without

(tumors, bands, etc.) and those caused by disease of the bowel itself, or, in other words, strictures of any variety. To add to these the soft, pliable, variable, and movable normal folds of rectal mucosa as pathological conditions is much the same as including the rugæ of the stomach among the causes of obstruction of the pylorus."

That the rectal valve really exists may be learned by any one if he will visit the editorial offices of your journal and inspect the specimens there placed on exhibition by me. The rectal valve, when the subject of malformation or disease, may obstruct the rectum. "Soft, pliable, variable, and movable normal folds of rectal mucosa" have not been described as pathological conditions; but the "expression hard, fibrous, and enlarged rectal valves is finding its way into the literature" just as insistently as the descriptions of appendicitis earned their place. Hypertrophy of the rectal valve is a condition precedent to what our critic would perhaps recognize as stricture of the rectal ampulla, just as appendicitis is preliminary to perityphlitis. An early recognition of the first stage of either admits of simpler, safer, and more efficacious methods of treatment. Earlier the rectitis should be recognized by the general practitioner, that the rectum may be so treated that absorption of the exudate may result rather than the formation of an organized deposit rendering rigid the rectal valve—thus may valvotomy be made unnecessary. "An internal proctotomy" for valvular obstipation is as reprehensible as the resection of the jaw for a necrotic tooth. It is the valve and not the wall of the rectum which demands the treatment.

The pathological relation of the rectal valve to obstipation was shown in my report of the first two years' work on this class of cases (concluded three years ago) at the Saratoga meeting of the American Proctologic Society. A few weeks ago this address was sent to *American Medicine*, and soon will be published. Of the forty cases reported, thirty-three were relieved by division of the rectal valve; others were improved; a few later experienced a return of the obstipation by reason of disease of previous non-involved valves; several patients were not benefited—because of error in diagnosis or of imperfect work.

THOMAS CHARLES MARTIN.

REMOVAL OF THE VERMIFORM APPENDIX.

NEW ORLEANS, July 22, 1903.

To the Editor,

Sir: In the issue of the *New York Medical Journal and Philadelphia Medical Journal*, Consolidated, for July 4th, Dr. Emil Ries, of Chicago, describes A Simple Method of Appendectomy. The technique of Dr. Ries was quite interesting to me, for as long ago as 1895 I assisted the late Dr. A. J. Bloch, of New Orleans, in two operations for appendicitis in which almost the same steps were followed.

Dr. Bloch advised such a technique and described his method in an article entitled, *A New Operation for Appendicitis*. The paper was published in the *New Orleans Medical and Surgical Journal* of August, 1896. The methods of the oper-

ators differ in the details, but the principle of inverting the stump by sutures carried through the lumen of the stump of the appendix and out through the wall of the cæcum is the same.

C. JEFF. MILLER.

Book Notices.

The Diseases of Warm Countries. A Handbook for Medical Men. By Dr. B. SCHEUBE, State Physician and Sanitary Adviser, Greiz, etc. Translated from the German by Pauline Falcke. With Addenda on Yellow Fever by James Cantlie, M. B., F. R. C. S.; and on Malaria by C. W. Daniels, M. B., M. R. C. S. Edited by James Cantlie, M. A., M. B., F. R. C. S., D. P. H., Lecturer at the London School of Tropical Medicine, etc. With all the Original Colored Maps, Charts, Illustrations, etc., together with many Additional Plates from the *Journal of Tropical Medicine*. Second Revised Edition. Philadelphia: P. Blakiston's Sons & Company, 1903. Pp. x-3 to 594. (Price, \$8.)

Probably no translation of any foreign work will receive a more cordial welcome than this book. The author begins with the subject of plague, and then carefully considers all the diseases encountered in the tropics. Most of these are of but slight interest to the average physician in the United States, for he seldom meets with them. In view of the fact that the United States has recently acquired possessions in the tropics, however, this subject will have a steadily increasing interest. Special attention is drawn to the articles upon yellow fever, beri-beri, leprosy, diseases caused by animal parasites, and the sleeping sickness of the negroes, for their completeness. One is also forcibly impressed by the conciseness and scientific accuracy of statement. The literature is given with such fulness as greatly to simplify any research work which the reader might care to undertake.

The book shows a vast amount of conscientious and invaluable labor, which cannot fail to make it a classic upon the subject. The translator, Miss Pauline Falcke, has performed her part admirably, and the English-speaking public owes her a debt of gratitude for placing within its reach this interesting and instructive book.

The International Medical Annual. A Year Book of Treatment and Practitioner's Index. 1903. Twenty-first Year. New York: E. B. Treat & Company, 1903. Pp. xi-739. (Price, \$3.)

Like its predecessors, this volume of the *Annual* continues to give the important advances in all branches of medicine for the year. It is especially valuable to the busy practitioner, as only the salient points are mentioned, though full references are given to the original sources. As heretofore, the question of treatment receives particular attention, and ætiology, diagnosis, and pathology are naturally dismissed with a few words or are not even considered. For the purpose for which it is intended, however, the work leaves but little to be desired.

How to Keep Well. An Explanation of Modern Methods of Preventing Disease. By FLOYD M. CRANDALL, M. D. New York: Doubleday, Page, & Company, Inc. Pp. 311.

In this very well written and interesting book Dr. Crandall has succeeded in presenting to the lay public a work which, when it is read, should succeed in removing the blindness from its eyes as far as the perception of the scientific methods of modern medicine are concerned. The various elements which contribute to the ætiology of disease are clearly set forth, and the attempt has been successfully made to portray the advances which our art has made in recent years. Modern surgery and its possibilities are described in simple language, and methods of life are pictured which will tend toward the keeping of health. Three chapters are devoted to the rearing, diet, and faulty nutrition of children; and perhaps the best chapter in the book for the average layman is that on the prevention of breakdown. It is safe to say that were the maxims of Dr. Crandall's book rigidly followed, the doctors would largely find their occupation gone.

In all large medical bodies of late, the instruction of the laity has been preached as part and parcel of the physician's duty; and while most of us have felt that the theory is correct, few have had the courage of their convictions. Dr. Crandall's book is a step in the right direction, especially as it strictly avoids all mention of treatment, and thus becomes a safe book for the hands of the layman. The truth about disease and about medical achievements is all he has tried to impress upon his reader. In this he has been eminently successful, and we heartily commend the book to physicians for their own reading not only, but for distribution among their patients also.

Die Technik der speziellen Therapie. Ein Handbuch für die Praxis. Von Professor F. GUMPRECHT, Med. Rat in Weimar, Dozent an der Jenaer Universität. Mit 205 Abbildungen im Text. Dritte umgearbeitete Auflage. Jena: Gustav Fischer, 1903. Pp. x-402.

In this edition the chief change from previous ones lies in the addition of the chapters on thoracotomy, local anæsthesia, and narcosis. The work has been thoroughly revised and enriched by many new illustrations. We know of no similar work, treating as it does of the mechanical agents used in the examination and treatment of the skin, the nervous system, and the alimentary, respiratory, and genitourinary tracts, and ending with a chapter upon general and local anæsthesia. Sufficient of the anatomy and physiology of each subject is given to render it intelligible, all the latest appliances are mentioned, in most instances with pictures illustrative of the text, and with the indications and contraindications for their use, so that the reader will find the work most complete and excellent in every respect. The reference literature also is given with great fulness. The book cannot be recommended too highly, for both theory and practice, and the general practitioner as well as the specialist will find in it much that is of value.

BOOKS, ETC., RECEIVED.

Miscellany.

Index Catalogue of The Library of the Surgeon-General's Office, United States Army. Authors and Subjects. Second Series, Volume VIII. Insane-Kysthospitalet. Washington: Government Printing Office, 1903.

Tumors Innocent and Malignant. Their Clinical Characters and Appropriate Treatment. By J. BLAND-SUTTON, Surgeon to the Chelsea Hospital for Women, Assistant Surgeon to the Middlesex Hospital, London. Third Edition. Chicago: W. T. Keener & Co., 1903.

Gynecology. A Text-Book for Students and a Guide for Practitioners. By WILLIAM R. PRYOR, M. D. Professor of Gynecology in the New York Polyclinic Medical School; Attending Gynecologist New York Polyclinic Hospital; Consulting Gynecologist St. Vincent's Hospital, New York City Hospital, St. Elizabeth's Hospital. One Hundred and Sixty-Three Illustrations in the Text. New York and London: D. Appleton & Company, 1903.

A Reference Handbook of the Medical Sciences, Embracing the Entire Range of Scientific and Practical Medicine and Allied Science. By Various Writers. A New Edition, Completely Revised and Rewritten. Edited By ALBERT H. BUCK, M. D., New York City. Volume VI. Illustrated By Chromolithographs and Seven Hundred and Sixty-three Half-Tone and Wood Engravings. New York: William Wood & Company. MDCCLXIII.

A Text-Book of Surgery. For Students and Practitioners. By GEORGE EMERSON BROWER, A. M., M. D., Lecturer on Clinical Surgery at the College of Physicians and Surgeons, Columbia University, New York; Attending Surgeon to the City Hospital; Junior Surgeon to the Roosevelt Hospital; Consulting Surgeon to the Perth Amboy Hospital; Fellow of the American Surgical Association; of the American Association of Genito-Urinary Surgeons, and of the Society of American Anatomists; Member of the New York Academy of Medicine and of the New York Surgical Society; Membre Correspondent de L'Association Française D'Urologie. Illustrated with 280 Engravings in the Text, and 7 Plates in Colors and Monochrome. Lea Brothers & Co., New York and Philadelphia, 1903.

Klinische Monatsblätter für Augenheilkunde herausgegeben von DR. TH. AXENFELD, Professor in Freiburg i. Br. and DR. W. UTHOFF, Professor in Breslau. Festschrift für Geheimrat Prof. DR. W. MANZ, Freiburg und Geheimrat Prof. DR. H. SATTler, Leipzig. Beilageheft Zum XLI. Jahrgang. Mit 19 Teils Farbigen Tafeln und 34 in den Text Gedruckten Abbildungen. Stuttgart. Verlag von Ferdinand Enke. 1903.

The Medical Epitome Series. Medical Jurisprudence. A Manual for Students and Practitioners. By EDWIN WELLES DWIGHT, M. D., Instructor in Legal Medicine, Harvard University. Series Edited by V. C. PEDERSEN, A. M., M. D., Instructor in Surgery and Assistant Anæsthetist at the New York Polyclinic Medical School and Hospital; Deputy Genitourinary Surgeon to the Out-Patient Department of the New York Hospital; Physician-in-Charge, St. Chrysostom's Dispensary; Anæsthetist to the Roosevelt Hospital (First Surgical Division). Lea Brothers & Co., Philadelphia and New York. Pp. 249.

The Microscopical Examination of Foods and Drugs. A Practical Introduction to the Methods Adopted in the Microscopical Examination of Foods and Drugs, in the Entire, Crushed and Powdered States. By HENRY GEORGE GREENISH, F. I. C., F. L. S., Professor of Pharmaceutics to the Pharmaceutical Society of Great Britain and Director of the Pharmacy Research Laboratory, Author of "An Introduction to the Study of Materia Medica." With 168 Illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1893. Pp. ix+321. Price \$3.50 net.

Die Periodizität der Diphtherie und ihre Ursachen. Epidemiologische Untersuchung. Von Dr. ADOLF GOTTSSTEIN, Arzt in Berlin. Mit 10 Curven im Text. Berlin: 1903 Verlag von August Hirschwald. N. W. Unter den Linden 68. Pp. 40.

1902. Forty-seventh Annual Report on the Health and Sanitary Condition of the Borough of Islington. ALFRED EDWIN HARRIS, Medical Officer of Health. London: Vail & Co., Printers to the Council, 170, Farringdon Road, E. C. 1903. Pp. 276.

Literæ Humaniores and Medicine.—In our schoolboy days what utter irrelevance (or in school-boy parlance, "Tommy rot") seemed to pervade the epigram of Martial to Ælia (I. 20)! But now, in virtue of the sidelight shed by glorious Science, is it not clear as the day that in those lines we have a foreshadowing of the doctrine of "acquired immunity"? For what says the poet?

If I remember aright your teeth were but twice two in number.

Two you spat out in a cough; another cough robbed you of two,

Now you may cough all day long with a mind that no fears can encumber,

For surely 'tis clear as can be, there is nought for a third cough to do.

And yet there are those who would persuade us that the study of the classics has no practical bearing for the man of science!

Volumes have been written to prove from internal evidence that Shakespeare must have been educated as a lawyer, as a physician, etc. On like grounds we have no hesitation in asserting that Martial must have been a medical man. In addition to the foregoing, take, for instance, his epigram, *Ad Castorem* (VII. 98), which runs thus:

Omnia, Castor, emis; sic fiet, ut omnia vendas.

The customary rendering is clearly beside the mark. Reading the foregoing in the light of medical science, we are at last able to realize the cryptic meaning of the poet:

Castor oil grabs at all things; but it brings them all back,
so what matter?

K. W. M.

Paintings of Degenerate Types.—Meige's article on Medicine at the Prado Museum, in *Presse médicale* for July 15th, is handsomely illustrated with half-tone reproductions of the paintings mentioned, which he saw during the fourteenth congress at Madrid. The six examples of Velasquez are portraits of historic dwarfs and buffoons. Meige has made a special study of paintings relating to medicine, and refers those interested in the subject to the admirable work of Charcot and Paul Richer, *Les Difformes et les Malades dans l'Art*. Velasquez was famous for his handling of rich fabrics, draperies, etc., and also for his portraits of sovereigns, but his portraits of court fools and dwarfs rank with his best work. The best of these is *Les Ménines* (attendants of the Dauphiness), which shows, besides three dwarf pages of the Infanta, Margarita Maria, the well-known Maria Barbola, an example of myxœdema, another portrait of whom is in the Musée d'Auch, in France; another figure is *El Primo*, a decided looking little man, with waxed mustachios and wearing an enormous sombrero. The whiskered abortion, Sebastian de Morra, seated, is the subject of another picture. He was evidently achondroplastic, his arms being remarkably thin and seeming to terminate in stumps. The third portrait is of Don Antonio Inglese, showing his prominent head and his strongly marked lower jaw. Beside the dwarfs are

the fools. Philip IV's fool, derisively called Don John of Austria, shows his figure to be of skeleton thinness and his air to be one of suffering, as if more scoffed at than scoffing. His left leg with its parenthesis curve and his bony face show the rachitic diathesis. There are two other buffoons of Philip IV, Pablillos de Valladolid, in a dramatic attitude, and Pernia Barberossa, in Eastern garb and armed with a sword. The Child of Vallecas, another portrait, is a marvelously faithful representation of a myxœdematous idiot, with its vague look, the half opened mouth, the pose of the big head, and the awkward position of the puffy hands. The most wonderful portrait, however, is The Idiot of Coria, which reproduces with photographic fidelity the asymmetric face, the prominent frontal knobs, the soft and probably paralyzed legs. He is patting one hand with the other, which gesture he undoubtedly accompanied with a rhythmic chant, and a swinging to and fro of the body. To the alienist this picture appeals as "psychiatrically" true and strikes one with its prodigious simplicity and virtuosity. Velasquez's celebrated *Æsop* is also in the Prado, but the hump, which Charcot, after a study of the bust in the Villa Albani, pronounced to be due to Potts's disease, is not well done. Meige also speaks of several Murillos, Riberas, and works by Van Bosch, Paul Veronese, Esteban March, Lejeune and others in the Prado, which are especially interesting to physicians.

The Wooden Sword of the Old-Time Japanese Physician.—We are all aware of the importance of the gold-headed cane to the physician of ancient days in Great Britain, but the fact that the physicians of Old Japan, or at least some of them, used to wear wooden swords, and the reason for this custom, may not be so generally known. A writer in the *Gazette médicale de Paris* for June 27th, says that before the revolution which in the last century transformed the medical practice of Japan, the physicians of that country used to carry a sword, like all other persons of a certain rank; but to indicate, no doubt, the essentially pacific character of their profession, this sword was made of wood and had a peculiar shape. Occasionally it held lancets or knives for cutting herbs, but more usually it was not hollow.

According to Dr. Vidal, formerly physician to the imperial maritime arsenal of Yokoska (*Union méd.*, July 3, 1877, p. 4), the Japanese physician of old-time did not belong to the noble class, whose right it was to wear a sword. Nevertheless, a number of physicians obtained that privilege; but it would appear that this custom of wearing a sword as a mark of distinction originated, not with the physicians themselves, but with the great lords whom they attended. As the latter could not escape from the necessity of admitting the physicians to their houses, and as, on the other hand, it was a breach of etiquette to introduce into one's palace one who did not wear a sword, it became necessary to accord to certain physicians, at any rate, the privilege of wearing that weapon. This was, however, frequently a perfectly inoffensive ornament, consisting merely of a piece of lacquered and sculptured wood, a

weapon only in seeming, but effectual enough for keeping up appearances.

In the June number of *Man*, the organ of the English Institute of Anthropology, Mr. Hartland has published a description, with photographs, of two of these physician's swords, which are very rarely encountered now-a-days. One of them is 44 centimetres long and in shape resembles a pod containing seven beans. A grasshopper is represented on one side, and a wasp on the other; a silk cord attaches it to the belt.

The other *Boku-to*, for so they are called, is very ancient and interesting. It is 45 centimetres long and is made of willow. At the lower end the form of the branch from which it was carved has been left. At 9 centimetres from the other end a hole pierced through the wood receives a waist cord of a pale red, to which is attached an ornament resembling a fig. On a narrowed portion are engraved in Japanese characters words which may perhaps be translated "spider boat." This inscription appears to have reference to a legend frequently recalled by the Japanese poets, in which a spider crosses a river on a willow leaf shaped like a skiff. The *Boku-to* being made of willow wood, possibly a very vivid imagination might perceive a certain analogy between it and a boat.

A Woman Physician and Counsellor-at-Law.—According to the *Physician and Surgeon* for April Miss Mary C. Lowell, M. D., LL. B., of Boston, is supposed to be the only woman in the world entitled to pursue the professions of law and medicine by virtue of degrees and diplomas. She was the first woman assistant superintendent of the Maine State Hospital for the Insane, which position she filled for five years, after which she journeyed abroad and visited the hospitals of various European capitals. The love of study prompted her to elect a course in law, and it is said to be her intention to procure two more degrees—Bachelor of Jurisprudence and Master in Chemistry.

Official News.

Infectious Diseases in New York:

We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending August 1, 1903:

DISEASES.	Week end'g July 25.		Week end'g Aug. 1	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	247	14	239	14
Diphtheria and Croup	321	30	275	38
Scarlet fever	111	12	104	8
Small pox	0	0	0	0
Chicken pox	13	0	21	0
Typhoid fever	293	123	316	148
Typhoid fever	69	14	66	12
Cerebrospinal meningitis	0	0	0	0

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending August 1, 1903:

ADAIR, GEORGE W., Lieutenant Colonel and Deputy Surgeon-General. Relieved from duty in the Division of the Philippines and ordered to the United States to report to the Adjutant General of the Army for orders.

CHAMBERLAIN, W. P., Captain and Assistant Surgeon.
Leave of absence extended thirty days.

GEDDINGS, E. T., First Lieutenant and Assistant Surgeon.
Relieved from duty at Fort Brady, Mich., and ordered
to Fort Keogh, Mont.

HALLOCK, H. M., First Lieutenant and Assistant Surgeon.
Relieved from duty in the Division of the Philippines
and ordered to Fort Porter, N. Y.

HARTSOCK, F. M., First Lieutenant and Assistant Surgeon.
Relieved from duty at Pekin, China, and ordered to the
United States to report to the Adjutant General of the
Army for orders.

HUTTON, PAUL C., First Lieutenant and Assistant Surgeon.
Relieved from duty at Fort Keogh, Mont., and ordered
to Pekin, China, as Surgeon to the Legation Guard.

JOHNSON, R. W., Major and Surgeon. Granted leave of
absence for thirty days.

Navy Intelligence:

*Official List of Changes in the Medical Corps of the
United States Navy for the week ending August 1, 1903:*

BLACKWELL, E. M., Passed Assistant Surgeon. Commis-
sioned Passed Assistant Surgeon from June 7, 1903.

FREEMAN, G. F., Passed Assistant Surgeon. Commissioned
Passed Assistant Surgeon from June 7, 1903.

RYDER, C. E., Assistant Surgeon. Ordered to the Naval
Hospital, Chelsea, Mass.

SIMONS, M. H., Medical Director. Commissioned Medical
Director from June 9, 1903.

Appointments.

* The following doctors have been appointed Assistant Sur-
geons from July 10, 1903: F. G. ABEKEN, T. N. PEASE and
S. L. SCOTT; and the following hospital stewards have been
appointed pharmacists: E. MAY, from March 28, 1903, and
T. N. PHILLIPS, from June 8, 1903.

Public Health and Marine Hospital Service Health Reports:

*The following cases of smallpox, yellow fever, cholera
and plague, have been reported to the surgeon general, Pub-
lic Health and Marine Hospital Service, during the week
ending August 1, 1903:*

Smallpox—United States.

Places.	Cases.	Deaths.
Alabama—Mobile	June 18-25.....	4
California—Los Angeles	July 11-18.....	1
California—San Francisco	July 12-19.....	3
Illinois—Belleville	July 11-23.....	3
Illinois—Chicago	July 15-25.....	1
Indiana—Indianapolis	July 18-25.....	1
Indiana—South Bend	July 18-25.....	1
Louisiana—New Orleans	July 18-25.....	3
Massachusetts—Fall River	July 18-25.....	7
Michigan—Detroit	July 18-25.....	6
Michigan—Grand Rapids	July 18-25.....	1
Michigan—Port Huron	July 18-25.....	2
Mississippi—Natchez	July 11-18.....	1
Mississippi—St. Louis	July 18-25.....	2
New Hampshire—Manchester	July 18-25.....	3
New York—Rochester	July 14-21.....	1
New York—Utica	July 17-24.....	3
New York—Watkins	July 18-25.....	5
Ohio—Cincinnati	July 18-25.....	2
Pennsylvania—Norristown	July 18-25.....	3
Pennsylvania—Pittsburgh	July 18-25.....	14
Pennsylvania—Scranton	July 18-25.....	2
South Carolina—Charleston	July 18-25.....	1
South Carolina—Greenville	July 11-18.....	4
Texas—San Antonio	July 18-25.....	2
West Virginia—Martinsburg	July 13-26.....	1

Smallpox—Foreign.

Argentina—Buenos Ayres.....	May 1-31.....	11
Austria—Vienna	July 4-11.....	5
Belgium—Antwerp	July 4-11.....	3
Belgium—Brussels	July 4-11.....	3
France—Paris	June 11-28.....	12
France—Lyon	May 31-June 13.....	3
France—Bordeaux	July 7-14.....	5

France—Paris	June 27-July 4.....	1
Great Britain—Dublin	July 4-11.....	5
Great Britain—Dundee	July 6-13.....	3
Great Britain—Edinburgh	July 4-11.....	1
Great Britain—Leeds	July 11-18.....	6
Great Britain—Liverpool	To July 18.....	13
Great Britain—London	June 20-27.....	7
Great Britain—Manchester	June 27-July 4.....	4
Great Britain—Newcastle-on-Tyne	July 4-11.....	31
Great Britain—Nottingham	July 4-11.....	2
Great Britain—Sheffield	July 4-11.....	1
Japan—Kobe	June 13-20.....	1
Japan—Nagasaki	June 11-20.....	1
Mexico—City of Mexico	July 5-12.....	16
Mexico—Tampico	July 12-19.....	15
Mexico—Veracruz	July 11-18.....	2
Mexico—Vera Cruz	July 4-11.....	1 imported
Russia—Moscow	June 27-July 4.....	5
Turkey—Constantinople	July 5-12.....	2
Uruguay—Montevideo	May 31-June 20.....	4

Yellow Fever.

Brazil—Rio de Janeiro.....	June 14-28.....	4
Costa Rica—Limon	July 8-16.....	1
Mexico—Atlix	July 14.....	Present.
Mexico—Atlix	July 13.....	Present.
Mexico—Atlix	July 12-19.....	3
Mexico—Tampico	July 11-18.....	45
Mexico—Tierra Blanca	July 13.....	Present.
Mexico—Vera Cruz	July 11-18.....	43
Mexico—Zongolica	July 13.....	5

Cholera.

China—Amoy	July 22.....	Present.
China—Hongkong	June 6-13.....	1
India—Calcutta	June 20-27.....	30
Straits Settlements—Singapore	June 6-13.....	8
Turkey in Asia—Catana	May 24-June 6.....	10
Turkey in Asia—Damascus	June 6-30.....	6
Turkey in Asia—Duma	June 2.....	2
Turkey in Asia—Zibdani	May 31.....	1

Plague—United States.

California—San Francisco.....	June 15.....	1
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Plague—Foreign.

Africa—Cape Colony.....	May 31-June 6.....	15
Africa—Natal	May 16-23.....	2
Australia—Sydney	June 13.....	1
Brazil—Rio de Janeiro	June 14-20.....	5
China—Hongkong	May 31-June 13.....	256
Egypt—Alexandria	June 20-27.....	5
Egypt—Port Said	June 20-27.....	2
Egypt—Other localities	June 20-27.....	2
India—Calcutta	June 20-27.....	14
India—Karachi	June 14-28.....	14
New Caledonia	July 26.....	Present.

Deaths.

FERGUSON.—In Philadelphia, Pennsylvania, on Sunday,
July 26th, Dr. Joseph Ferguson, in the sixty-third year of
his age.

FOREST.—In Rockaway Park, New York, on Tuesday, July
28th, Dr. William E. Forest, of Elizabeth, N. J., in the fifty-
seventh year of his age.

HAWKER.—In New York, N. Y., on Friday, July 31st, Dr.
Benjamin Hawker.

JONES.—In Greenwich, Connecticut, on Monday, July
27th, Dr. Milo Hotchkiss Jones, in the twenty-eighth year
of his age.

LE VAN.—In Buffalo, New York, on Sunday, July 26th,
Dr. Clarence B. Le Van, in the thirty-ninth year of his age.

MELVIN.—In Atlantic City, New Jersey, on Wednesday,
July 29th, Dr. Joseph Melvin, in the thirty-fifth year of his
age.

MILES.—In Baltimore, Maryland, on Thursday, July 30th,
Dr. Francis F. Miles, in the seventy-sixth year of his age.

SCHUREMAN.—In Newark, New Jersey, on Wednesday,
July 29th, Dr. Albert Jeremiah Schureman, in the seventy-
fourth year of his age.

SUTCLIFFE.—In Louisville, Kentucky, on Friday, July
24th, Dr. John E. Sutcliffe, in the eighty-fourth year of his
age.

TREMBLY.—In Reily, Pennsylvania, on Friday, July 24th,
Dr. John M. Trembly, in the seventy-third year of his age.

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Lectures and Addresses.

THE SIGNIFICANCE OF JAUNDICE AS A SYMPTOM IN DISEASE OF THE BILIARY TRACTS.*

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Mr. President and Gentlemen:

It is my very great pleasure to acknowledge the compliment of being chosen to address the Ohio State Medical Association upon a surgical as well as a medical subject. As the topic of my address, The Significance of Jaundice as a Symptom in Disease of the Biliary Tracts, appeals to the medical man as well as to the surgeon, especially as these patients, as a rule, first consult the family physician, I am sure my remarks will be à propos to the occasion.

The presence of bile in the circulating blood and its appearance in the skin, mucous membranes, exudates, and excretions, is a condition frequently observed, both in medical and surgical practice. To the surgeon, jaundice too often means more than the mere indication of some lesion of the biliary apparatus; it indicates a neglected condition or a disease which has advanced to the point where surgical interference is useless. To many medical men the appearance of the biliary coloring matter is sufficient evidence of a gallstone in the common duct or of hypertrophic cirrhosis of the liver.

It is the purpose of the writer to call attention to the significance of jaundice as a symptom in diseases of the biliary tracts and to the value placed by surgeons upon its presence when attempting to diagnosticate the pathology of affections of the liver and its ducts.

You are of course aware of the manner of the biliary secretion by the liver, its passage under low pressure to the duodenum, the function of the gall bladder as a reservoir, and the orifice of the

common bile duct opening into a portion of the human body which is normally teeming with microorganisms.

The biliary ducts are comparatively small in diameter, with frequent curves, and open by a minute orifice into the duodenum. This further aids any tendency to obstruction. The relations of the portal lymphatics and the head of the pancreas are so intimate to the common duct that their enlargement may easily obstruct the canal. Not only may infection reach the liver directly through the common duct, but by means of the portal circulation such infection may be carried from any part of the intestinal canal.

With such a multiple of ways which may cause obstruction, it is necessary that every factor in the history of the patient be examined and weighed, and that jaundice be regarded as a link only, in the chain of evidence which may point to a certain disease.

The etiology of icterus may be considered under (a) disturbances of the liver cells; and (b) mechanical obstructions. The latter cause is by far the most frequent, and is the one which calls for surgical intervention in nearly every instance.

On the lesions due to disturbance of the hepatic cells I will dwell but briefly. They are almost exclusively within the domain of the internist.

Bile is normally poured into the bile capillaries by the hepatic cells, and when the latter are diseased or disturbed the bile may be emptied into the blood along with the sugar and urea which are normally secreted by the liver cells. Liebermeister and Pick have asserted that such a perversion of the bile pigment may occur from functional causes, even without demonstrable pathological disturbances.

Pick, indeed, explains even the mechanical forms by nervous influences or a paracholia, whereby a reflex is carried from the nervous supply of the gall bladder to the secretory nerves of the liver.

Various poisons acting either upon the blood or upon the liver cells themselves may give rise to jaundice. But such conditions do not interest

* The Address on Surgery before the Ohio State Medical Society, June 4, 1903.

the surgeon and it will suffice to mention Hunter's classification:

1. Jaundice produced by the action of poisons, such as phosphorus, arsenic, and snake venom.

2. Jaundice met with in various specific fevers and conditions, such as yellow fever, malaria (remittent and intermittent), pyæmia, relapsing fever, typhus, enteric fever, and scarlatina.

3. Jaundice met with in various conditions of an unknown, but more or less obscure, infectious nature, and variously designated as "epidemic," "infectious," "febrile," or "malignant" jaundice, "icterus gravis," "Weil's disease" and "acute yellow atrophy of the liver."

In addition to this grouping it might be well to call your attention to the jaundice frequently associated with severe hæmorrhage, starvation, or lowered blood pressure in the portal or hepatic vessels with increased tension in the smaller bile ducts. The latter condition is believed to follow certain forms of psychic irritation.

This brings us to the second group, or obstructive jaundice, frequently styled hepatogenous icterus, a condition that has a special interest to the surgeon.

In order to approach the subject with some degree of order and clearness, it seems advisable to discuss the significance and appearance of icterus from the ætiological standpoint. I will, therefore, divide the lesions of the biliary tract causing obstructive jaundice into four groups.

1. Inflammatory and infectious.
2. Cholelithiasis and its results.
3. Neoplasms of the gall bladder and ducts.
4. Tumors or pathological conditions of neighboring organs exerting pressure.

The so-called catarrhal jaundice which we so frequently see as a consequence of a gastrointestinal catarrh may vary in degree from a mild and transient yellowing of the skin to a deep and long persistent coloring. Such attacks rapidly subside, as a rule, with but little treatment, but the ever present bacterial activity sometimes permits a suppurative cholangitis, pancreatitis, cholelithiasis, hydrops of the gall bladder, etc., to take place, and the original catarrhal condition is allowed to fog the perception of an otherwise easily apparent lesion.

The extension of the catarrhal process from the duodenum into the ducts causes a desquamation of their epithelium with a secretion of thick mucus. In the gall bladder this may result in the formation of gallstones; in the ducts, and especially the hepatic ducts, gallstones may also be formed, or else the collection of the mucus into plugs may simulate impacted calculi, though I

think the importance of such obstructions by mucus is much overrated.

The history of these cases begins with the history of an overloaded stomach, the drinking of iced drinks, or the abuse of alcohol, followed by nausea, vomiting, anorexia, and a feeling of sensitiveness over the stomach. The tongue becomes coated; headache, fever, and constipation are observed. In about three days the skin begins to appear yellow, the urine becomes dark amber in color, and the brown appearance of the stool gives way to a lighter and lighter yellow. Pain is nearly always absent, and its presence should lead to a very careful observation of the course of the disease with persistent jaundice for several weeks; the liver may become slightly enlarged and tender, or a feeling of oppression over the hepatic area may be complained of by the patient.

Where treatment has been successful, the gastroduodenitis ceases, the urine becomes normal, and finally the yellow discoloration of the skin and mucous membranes fades away. Attacks may recur, but, except in the case of those addicted to alcoholic excesses, such recurrences should be viewed with great suspicion, and chronic gallstone obstruction ruled out of the diagnosis for a certainty.

While it is probable that most of the cases of so-called catarrhal jaundice are infectious in origin, yet this cannot be positively proved. Suppurative cholangitis may follow the simple catarrhal form from the invasion of the duct by pyogenic microorganisms, especially by virulent types of the colon bacillus.

While cholecystitis and simple catarrh of the ducts is a very frequent incident in enteric fever, I have but rarely been called upon to operate for the severer suppurative variety.

In suppurative cholangitis icterus is variable in character and dependent upon the amount of obstruction.

In general, it may be stated that the jaundice is pronounced, increasing in intensity nearly to the degree observed in malignant disease. The liver becomes enlarged, smooth, and tender to pressure. The purulent nature of the disease becomes manifest by the well marked character of the fever, the sweating, and the chills. Diarrhœa, gastric disturbances, anæmia and loss of strength are frequently observed.

Cholelithiasis is frequently associated, and the calculi are usually forced out of the gall bladder into the common duct. Such cases are very fatal in their termination, as the obstruction to the bile flow also causes retention of pus with diffusion of

the purulent process and multiple abscesses of the liver as a result.

The following case is a good illustration of the jaundice occurring in the suppurative type of the disease due to infection with the streptococcus:

CASE I.—R. R., age forty-nine years, married, and a laborer by occupation. One brother died of phthisis. Previous personal history is absolutely negative.

Thirty hours before admission he was seized with sharp pain along the rib margin on the right side, and in the epigastric region. Nausea and vomiting followed, the latter consisting of a bitter green material (bile). The bowels were constipated, there was anorexia, but no jaundice or pain.

Was admitted to the German Hospital, April 27, 1903, complaining of a dull pain over the region of the gall bladder. He was well nourished, of good musculature, and had a fair abundance of adipose tissue. He suffered from granular eyelids. The tongue was coated, scleræ clear, no jaundice. The right rectus muscle was rigid, most markedly so in its upper half. The gall bladder region was tender, but no tenderness could be observed directly over the gall bladder. A mitral systolic murmur transmitted to the axilla was present.

April 28, 1903.—Tenderness over the gall bladder region has subsided, so has the rigidity. Slight tenderness can be detected on deep pressure over the right side of the epigastrium and over the right iliac fossa. The liver was slightly enlarged. Stools brown in color.

Leucocytes were 15520 per cub. mm. The urine revealed a s.g. of 1030, with albumin. No casts, sugar, or biliruria.

April 29th.—Scleræ slightly yellow. The gall bladder region is tender, this area extending nearly to the median line.

April 30th.—Jaundice becomes pronounced. Bile is present in the urine, together with granular casts. Tenderness over gall bladder. Stools light yellow.

May 1st.—Leucocytes number 20120 per cub. mm. A fluoroscopic examination reveals a shadow over the gall bladder region and diffused downwards.

May 2d.—Jaundice is very deep, stools clay colored, urine a deep amber color.

The temperature on admission was 100.6 F., pulse 64. There was a marked septic type of fever, varying from 99° to 103° during the next few days; pulse beat from 80 to 116.

Operation, May 2d, under ether anaesthesia. An incision seven inches long was made in the right rectus muscle, the peritonæum opened and the intestines packed off by flat marine sponges. The liver was found to be enlarged and the gall bladder distended. The latter was aspirated of 100 c.c. of dark green inspissated bile containing two very fine fragments of a gallstone. This bile on subsequent culture revealed the *Streptococcus pyogenes* in pure culture. The common duct was then examined, by both probe and finger, for the presence of calculi, and in the common duct a stone the size of a millet seed was found.

The stones in this case were probably quiescent in the gall bladder until the attack of suppurative cholecystitis and cholangitis. The jaundice was not apparent until the small stone had been driven out of the gall bladder into the already swollen common duct. The hepatic duct was drained by a rubber tube through the opening made in the common duct, and the gall bladder likewise was drained by a tube, both being held in place by cat-gut sutures. Gauze drainage was then placed above and below the drainage tubes and the wound closed with interrupted silk worm gut sutures. Both tubes drained into a bottle at the side of the patient. Recovery from the operation was complete, and jaundice disappeared in two weeks after operation. Temperature was normal three days after operation and remained so. The bile drained amounted to from 75 to 155 c.c. each twenty-four hours for ten days, when the drainage tubes were removed.

At present date (May 25th) the patient is convalescent, with a fistula still discharging.

Abscess of the liver may or may not give rise to jaundice, depending upon the amount of compression of the biliary ducts; as a rule it is absent. In the latter class of cases the scleræ and skin present a muddy, grayish yellow appearance, resembling that of cirrhosis of the liver, which may be mistaken for jaundice.

The early enlargement of the liver, tenderness over its area increased by respiration, pain, fever, and leucocytosis, which may, however, be absent, the anæmia and prostration are the earliest symptoms observed. If jaundice then follows and is at all marked, a complicating cholelithiasis should be suspected.

It is so very long ago since the presence of calculi in the biliary passages without jaundice was regarded as a rarity by the majority of practitioners of medicine. At the meeting of the Congress of American Physicians and Surgeons, held a few weeks ago, Kehr, of Halberstadt, stated that in his extensive experience, "jaundice is absent in 80 to 90 per cent. of gallstone cases, and even in stones lodged in the common and hepatic ducts the jaundice is absent in 33 per cent.; the stones, not only small ones, but even those attaining the size of walnuts, may remain latent in the common duct not only for weeks, but for months and years."

To the fact that in the majority of cases of gallstone disease the calculi are in the gall bladder is due the large percentage of cases without jaundice. They may remain latent in the gall bladder during the remainder of the life of the patient and never give rise to any inconvenience whatever, either pain or jaundice. But should an inflammatory attack induce their propulsion from the gall bladder, jaundice may occur in several ways. Not only is the cystic duct narrow in calibre, but

its mucous membrane is arranged in a spiral form, acting as a valve and tending to favor the lodgement of a stone attempting to pass through it. Stones, if large enough, may obstruct not only the cystic duct completely, but also the common and hepatic duct more or less entirely; and when such partial obstruction is accompanied by an infectious cholangitis the picture of acute common duct obstruction may be simulated.

The passage of such a stone into the common duct, and especially when propelled by an infection, gives rise to the typical picture of acute gall-stone colic with jaundice. The inflammatory swelling of the mucous membrane soon effects the lodgement of the stone and the jaundice becomes intense, as in twelve hours after the commencement of the attack it may have reached its maximum intensity. If the stone reaches the duodenum the symptoms abate and the jaundice subsides.

In some cases icterus does not appear for at least twenty-four hours after the initial onset of colic, and this is particularly true when the stone is small enough to pass down the common duct as far as its curve beneath the head of the pancreas. As the latter organ is enlarged in at least one-quarter of the cases, the lumen of the duct will be encroached upon and the stone retained at this point. Jaundice then deepens as soon as the stasis of bile is complete. The gall bladder is not necessarily distended in the acute form of obstruction.

In chronic obstruction of the common duct by a stone, jaundice may be entirely absent, and is constantly present in only extremely rare cases.

Had surgery taught nothing else of the pathology of cholelithiasis than this one fact, we should still be her debtor; it must always be borne in mind that a stone may remain in the common duct for a long time without ever causing jaundice. In many other cases the icterus is of but slight degree and requires careful observation to detect it. That such is the case is due to the well known "ball valve" action of the stone in the duct, whereby the duct behind the obstructing calculus dilates and "floats" the stone before sufficient biliary stasis has occurred to cause discoloration of the skin or conjunctiva.

In other instances this ball valve action forces the stone firmly onward a trifle, sufficient bile collects to cause the appearance of icterus, the stone again floats in the dilated duct, and jaundice disappears until the next fixation of the calculus occurs. In such cases the stools may be found to alternate from a dark green to a dull gray, and biliruria may occur periodically.

Each increase of icterus is accompanied, as a rule, by an intermittent type of fever which declines with the fading of the icterus. Should the jaundice become pronounced in these typical cases of chronic stone obstruction with a more constant febrile state, it will indicate that an infectious cholangitis has probably occurred.

As a result of acute infections of the biliary tracts, or of gallstones, certain complications may occur, each of which can give rise to more or less pronounced icterus. I refer to adhesions or strictures of the common duct.

It is also interesting to note that a fistula may occur behind a stone, completely blocking the common duct and preventing the occurrence of jaundice. I have observed such a case recently, the history of which is as follows:

CASE II.—T., age sixty-nine years. Born in Germany. Family history negative. He had malaria in early adult life and used alcohol moderately. Has had dyspeptic attacks for years.

A year and a half ago he was attacked by colicky pains in the epigastrium and right hypochondrium regions. Relieved by opium. The pain was referred to the right shoulder. There was no jaundice until three weeks ago, when the sclerae became yellow, the bowels constipated, and one week before admission were clay colored. He has lost forty pounds in weight. The skin itches very much.

At operation, after the usual incision, the gall bladder area was found filled with adhesions. In order to expose the right free border of the gastrohepatic omentum, so as to be enabled to palpate the common duct, separation of the gall bladder and duodenum was necessary, and it was found that Nature had performed a cholecystoduodenostomy. The dissection was carried to the extent of freeing the border of the gastrohepatic omentum, when palpation revealed the presence of a stone occluding the common duct. The portion of the duodenum containing the opening was completely freed of adhesions, and the opening, which readily admitted the points of the middle and index fingers, closed. The common duct was then opened, the stone extracted, and drainage introduced into the proximal end of the duct. The gall bladder was then excised close to the junction of the cystic with the common duct. Recovery was uneventful.

Bacteriological examination of the bile from the gall bladder proved it to be sterile.

Primary growths of the gall bladder and bile ducts are rather rare, and the former will not cause jaundice until the growth has involved the common duct by extension or has implicated the portal glands, in which event icterus slowly but permanently increases.

A catarrhal process is frequently concomitant in all forms of carcinoma and may cause jaundice. This gives the explanation to the temporary relief

frequently obtained in cancer cases by various methods of treatment.

If we again recall the anatomical relations of the common duct, we find that it passes between the layers of the gastrohepatic, or lesser, omentum, behind the first part of the duodenum or the pyloric extremity of the stomach, and thence along the left side of the second portion of the duodenum and behind the head of the pancreas. It then turns to the right, descending between the second portion of the duodenum and the head of the pancreas. It is then joined by the duct of the pancreas, the duct of Wirsung, and together they dilate to form the ampulla of Vater. This common duct then pierces the wall of the left side of the second portion of the duodenum, running obliquely through the muscular layer for a distance of three quarters of an inch, and empties into the duodenum by an opening barely admitting a probe.

We can easily understand, therefore, that a gastroduodenitis, sufficient to cause a catarrhal swelling and obstruction of the common duct, will also block up the pancreatic duct with retention of its secretion. The effect of the retained pancreatic juice is such as frequently to cause an inflammatory condition of the pancreas with infiltration and induration of its parenchyma. As I have before remarked, in nearly one-fourth of the cases of gallstones some degree of enlargement of the head of the pancreas is observed.

In certain other cases the duct of the pancreas may be unobstructed, gallstones may be absent, the chronic inflammation which occurs being due to the infection of the gland from an acute lesion of the duodenum. When the induration in the head of the pancreas is sufficient to obstruct the common duct, jaundice increases in intensity and becomes persistent.

Carcinoma of the head of the pancreas, whether primary or metastatic in origin, always produces, sooner or later, a deep, increasing, and persistent jaundice. These two conditions, chronic inflammation and carcinoma, are frequently confused during their early stages, because of the intense degree of jaundice and the enlargement of the gall bladder observed in both. You, of course, recall in this connection, Courvoisier's law, viz.: that in cases of intense jaundice, a normal or shrunken gall bladder denotes a stone obstructing the common duct, while a dilated and enlarged gall bladder is due to malignant disease.

Carcinoma of the stomach may cause jaundice in one of several ways. The growth itself may encroach upon the lumen of the common duct as it winds behind the second portion of the duodenum, particularly when adhesions hold the duct

fast and prevent it from being pushed aside. Such adhesions I have always observed in large carcinoma of the pylorus.

The distribution of several of the portal glands along the course of the common duct may, by their enlargement, simulate gallstone obstruction and cause jaundice. I have observed this a number of times, and have opened up the duct in one case expecting to remove a stone at the duodenal end, which turned out to be a large gland with a greatly enlarged head of the pancreas as the cause of the jaundice.

In the post mortem room of the German Hospital recently, a typhoid fever patient came to autopsy, who had become jaundiced a few days before death from a violent typhoid sepsis. The gall bladder was enlarged and filled with clear bile, no stones. A gland, situated at the angle formed by the junction of the cystic with the common hepatic duct, was enlarged to the size of a hazel nut and compressed the common duct.

This brief summary of the more important conditions causing obstructive jaundice is placed before you with the intention of emphasizing several points:

First and foremost, that jaundice is absent in the majority of cases of gallstone disease.

Secondly, that the jaundice following acute gastrointestinal symptoms means a catarrhal condition of the ducts, and may be followed by suppurative cholangitis with its deep jaundice and well marked symptoms.

Thirdly, that jaundice following chronic gastrointestinal symptoms is usually due to chronic pancreatitis with induration and enlargement of the head of the pancreas and with or without gallstones, and after excluding malignancy.

Fourthly, that acute obstruction of the common duct by a stone furnishes characteristic symptoms easily diagnosticated; that chronic impaction is followed by the intermittent type of jaundice without enlargement of the gall bladder, or else by no jaundice whatever. Should the icterus become intense, the fever, sweating and chills of suppurative cholangitis will denote infection.

When a patient dies in a condition of intense jaundice, we frequently use the expression "cholæmia." At the present day I think that the greater number of such patients die from an infection, and not from the retention of bile *per se*. Not that cholæmia never exists, but rather that an increasing intelligent conception by internists of the results in gall bladder surgery brings the cases earlier to the surgeon.

By cholæmia is meant the train of symptoms which usually begins suddenly and terminates

fatally in a few days. Jaundice, great prostration, and delirium or coma are the most prominent symptoms.

The obstruction of the bile flow, the dammed up secretion, mechanically compresses the liver cells, while the bile itself exerts a deleterious chemical injury. The cells are finally attacked by fatty degeneration or necrosis and, with the overgrowth of connective tissue, interstitial hepatitis is produced.

The bile itself, the products of the diseased liver cells and the infection of microorganisms produce together an autointoxication, the exact effect of which is difficult to comprehend.

We know clinically of various gastrointestinal disturbances, such as anorexia and constipation; of nervous influences, such as various disturbances of sight, like the phenomena of yellow vision. Pruritus is a frequent and annoying symptom. The pulse rate is very often slowed and the volume small. This has been variously ascribed to a paralysis of the intracardiac ganglia, vagus irritation, or disease of the heart muscle.

The excretion of bile pigment by the kidneys, if long continued, must result in disease of their epithelium. The granular casts which are nearly always observed in jaundice cases are stained heavily by bile. The epithelium present is frequently renal in origin, and even in fresh urine shows evidence of necrosis and granular degeneration. The persistence of icterus is manifested by necrotic changes in the epithelium of the tubules of the kidney and their subsequent occlusion.

It should be remembered that in the early stages of jaundice, with a slightly yellow tinge to the skin and conjunctiva and with bile pigment present in the serum of a blister, the urine may give no reaction to bilirubin, merely containing a slightly larger amount of urobilin than normal. In the more advanced stages with marked jaundice, the absence of the bile pigment in the urine would indicate the relief of the obstruction, and the stools should be watched for a return of color.

Finally, a certain predisposition toward hæmorrhage exists, and epistaxis, hæmatemesis or intestinal hæmorrhage may occur. This tendency toward bleeding will be referred to again.

The system may become in time accustomed to the retention of bile without the production of any acute organic symptoms. I have observed several cases in which the icterus was pronounced, and yet for six months the patient lived without any untoward result other than a gradually progressing weakness and emaciation. This is fre-

quently seen in carcinoma cases, where the added jaundice does not appear to materially hasten the inevitable fatal ending.

There is no direct treatment, of course, for the icterus itself. In inoperable cases we can only relieve the annoying itching by various powders or lotions. In acute intoxication or cholæmia, purgation and the promotion of diuresis and diaphoresis are the only remedies available.

In operative conditions, calcium chloride, in twenty to thirty grain doses three times a day, seems to have some action in preventing oozing after operation, by assisting coagulation of the blood.

This bleeding after operation is most often met with in jaundice due to chronic pancreatitis and carcinoma of the head of the pancreas, and has lost patients to the writer after an otherwise apparently successful operation.

After operation, calcium chloride may be administered by the rectum, thirty to sixty grains every four hours, with full doses of opium.

In conclusion I would urge upon you to obtain a complete description of the previous history and early symptoms of your icterus cases, to form a diagnosis from such history as rapidly as possible and to ask for surgical consultation before the damage to the liver cells is great, before the infection has become diffused, and before the jaundice has weakened the resistance of your patient to the dangers of an operation.

The evil effect of delayed operation in gallstone cases does not rest with the effects of prolonged jaundice; it is frequently a forerunner of biliary cirrhosis, to say nothing of other sequelæ.

All inflammatory colics of the gall bladder are accompanied by extensive adhesions from pericholecystitis, which affect the omentum, colon, duodenum, pylorus, and pancreas. Everything in the region of the biliary tracts becomes tied up into an unrecognizable and tangled mass, the operation is difficult and prolonged, and with the destruction of the anatomical landmarks so essential to surgical success, the welfare of the patient may be placed in grave peril.

Gruesome Origin of a Possible Epidemic.—There was a death recently from smallpox in a small hamlet in West Virginia, twenty miles south of the Guyan River. The body was conveyed in a farm wagon at midnight to the burial ground. The mourners became intoxicated, and during their orgie, the coffin was broken and the body precipitated over an embankment thirty feet in height. The drunken men were afraid to touch the remains, which were exposed for several days before the town authorities buried them.

Original Communications.

REGICIDES; SANE AND INSANE.*

By E. C. SPITZKA, M.D.,

NEW YORK.

The popular and natural presumption of mental unbalancing is greater with the bizarre, the unaccountable, and the extravagant; and proportionately greater the more pronounced these qualities are. In the case of magnicides and political assassins generally, this presumption is supported by the high ratio of demonstrably insane actors amongst them, compared with ordinary homicides, who, in their turn, show a higher proportion than most other criminals. But the difference is not so great as to constitute the presumption an overwhelming one, and is far indeed from justifying its being made the basis of any *a priori* attitude whatever. Individual experience is not likely to help the observer much, since such must be restricted with an offense which is an exceptional occurrence. Were the writer inclined to lay weight on his own experience, he would predicate insanity as prevailing in the majority of magnicides; for Guiteau, Helen Coffin, Yseult Dudley, Gallagher, and the contemplating assassin of Dr. Paxton were insane when examined by him; and but two, one a forerunner, singularly enough, of insane Norcross, and the other a fugitive from abroad were found sane. The scientist who in support of a claim of mental abnormality rests on the stated assumption, occupies a position in common with the laity who jump at the conclusion that whatever is beyond their ken is unnatural or unsound.

That since the beginning of the nineteenth century twenty-five chiefs of State and cabinet ministers of this and the countries of Europe have perished by assassination, the fruition of 142 plots, gives but a faint idea of the part which this crime plays in public affairs. For, while regicide in days of yore was a relaxation of the princes themselves, and later, as a move on the chessboard of ministerial intrigue, the profession of salaried chevaliers or the achievement of experts hired by the job, it to-day represents the executed death sentence imposed by secret tribunals which, subverting tradition, judge from below that which is above.

Their mysterious and ferociously bloody sentences were at first passed only on the head and front of an antagonized system; but, as ambition grew and practice made perfect, the jurisdiction of proletariat and terrorist courts became extended. Deputies in their legislative sanctum and judges on the bench

became reminded that there were representatives of classes, in addition to those of the entire people; and that to become ideally equitable Minos and Rhadamanthus must acquire an experience of the workings of law, both as victims and as vindicators.

The growth and transformation of regicide has been almost imperceptibly gradual. Its first beginnings might be traced to primitive days, as a phase of crude natural justice. Tyrannicide was defended as a legitimate resort against misgovernment by some of the wisest men of antiquity; nor was it without sincere apologists in days as recent as those of our grandfathers. The glamour with which those who were flowery writers but bad historians, surrounded the memory of Harmodius and Aristogeiton, Judith, Mucius Scævola, and Brutus, attracted many a youthful imitator, fortified and justified many a wavering enthusiast.

But the very education which misled, by presenting models at chronological distances that lent historical enchantment, carried with it a remedy. Critical research robbed Brutus of his nimbus, threw doubts on Judith, called off Scævola as legendary, revealed Artaban as an intriguing time server, and later still exposed Felton as a sorehead, as it would reveal the best of them all, Charlotte Corday, to have been an indirect suicide. Not alone was regicide stripped of almost all that appeals to the sentimental and romantic, but a more practical lesson was inculcated at the same time. It reads that no branch of human enterprise has so universally and, in almost every instance, so grossly failed to realize the undertaker's object as political assassination. The uniformity with which the reverse of the assassin's intention has been accomplished presents what—but for the tragical aspect of the deed itself—would appear comical.

In the entire series of *attentats* from the days of Eunomas down, the only instance where assassination from political motives accomplished anything approaching its purpose, seems only to emphasize this irony of Fate most strongly; namely it was the work of one of the few successful insane ones. Yet while a lunatic might assume the credit of having reunited the wings of the republican party—since that event, if not accomplished through, occurred after his shooting of Garfield—he was far from gratified thereat. For this single achievement by an assassin had not been his primary or his main design, and a curse laid on those who had, as he saw it, profited by his enterprise and ungratefully deserted their benefactor, expressed his appreciation of the fruition.

A Huguenot sympathizer with prosecuted Dubourg shot to death Minard, President of the Paris

* Read before the Society of Medical Jurisprudence, April 13, 1903.

Court of Justice, in order to intimidate that court, and save the accused whom it tried for heresy. The trial was only the more vindictively hurried; whatever chances Dubourg had were destroyed; and he was sentenced to, and executed at, the stake. Löhnig, as delegate of the "Blacks", at Giessen, in behalf of freedom of university teaching and thought, attempted the life of an objectionable minister; result—the "Carlsbader Resolutions," which fettered the liberty of teaching and publishing already crippled through the assassination of Kotzebue. Despard and Thistlewood conspired against the most venal and tyrannical ministers England has known since the days of the Cabal; so precarious was their tenure that their only possible hope of continuance lay in arbitrary measures not unlike suspension of the habeas corpus. A pretext was, however, wanting until these plots were discovered, so that Thistlewood and Despard, each, saved these ministers whom they had plotted to destroy, from an otherwise inevitable downfall. This history repeated itself when George IV was shot at.

In its harmlessness the French *attentat* reminds one of another bloodless practice by the same people—the French *duello*. As in the latter case, however, an important source of misjudgment might be overlooked. There is very little doubt that more than one administration whose hold was precarious undertook to strengthen, and sometimes succeeded in strengthening this, by provoking reactions of feeling against opponents through an opportune *attentat* which benefited themselves by reflecting discredit on the others. Napoleon III, like his genuine namesake, was an adept at this species of knavery, which profited him as long as his shams passed for genuine, and equally protected him against genuine hatred after their true character became suspected. For no self-respecting assassin cared to run the risk of becoming regarded as a hired comedian, because of an assault which, however seriously intended, might materialized in a fiasco, suggestive of simulation, because its predecessors were known to have been spurious.¹

With higher culture the proportion of the ordinary type of political assassin decreases; at the same time the proportion of insane assassins increases. Where assassinations are frequent, such by the insane are rare; where assaults by the insane are most frequent, those by sane assassins are few or futile. Civilization repressing this crime among

the sane, through the accompaniment of an increased insane population, carries with it the source of the, at first, surprising antagonistic rise of the proportion of insane regicides. There could be no plainer indication as to there being some essential differences between the insane and ordinary political assassin, than the fact that, in different countries and periods, the respective ratios move in contrary directions—where the one is relatively high, the other is low, and this is so with a remarkable constancy. That the difference thus expressed is essentially that between sanity and insanity, as such, does not necessarily follow. It might be assumed that the typical assassin was affected with some mental abnormality distinct from the ordinary psychoses. But whatever anticipation is entertainable, the antagonism between the typical assassin and the insane assassin is a most marked one in respect to ratio fluctuation.

Of 107 assaults consummated against European rulers and ministers since 1800, 29 were by insane assailants. It seems suggestive that, while 48 sane assassins attacked the actual rulers and ministers of the great powers, and 30 such the princes and ministers of smaller countries, 28 of the insane attacked the former and only one the latter.

The ratio of insane assassins of prominent persons is in

	PER CENT.
Great Britain and Ireland	44
France and Belgium	29
Germany	22
Iberia	16.6
Austro-Hungary	14.2
Italy	6.8
Russia	4.5
United States	

Not only does the number of episodes decrease more abruptly in the "central and northern" group, but the intrinsic percentages which indicate the proportions of plots with plural participants, of successful accomplishment and of immunity secured against punishment, decrease at the same time. The most significant of these changes is that in the success-rate, this sinks to less than one-quarter of its previously lower proportion relatively to the corresponding figure of the peninsular group. And when the comparison is restricted to the period 1890-1894, the ratio of central European successes appears so low as seemingly to disappear by the side of the high success rate of the numerous *attentats* committed by Italian and Spanish magnicides.

¹ The secret archives and detective reminiscences of the Tuileries revealed much pointing in this direction, but nothing so definitely connecting the "assassin of the 2nd of December" with vulgar midnight murder as in the case of Kelsh, whose assassination was, it was, in a cabinet consultation. The Tuileries were under the special protection of Corsican bandits, and these vigilant assassins defeated at least one of the genuine *attentats* when Sebastian checked Pianori.

² Separately considered, England's percentage of insane assassins is 51.8 per cent., Ireland's 14.2 per cent. The United States ranks next to England in this respect, with 66.6 per cent. The tables bear reference to Europe exclusively, as the rubrics of former centuries would be thrown out of their due relative proportion with the United States and Spanish-American Republics practically unrepresented prior to 1800.

TABLE A.
RATIO OF MAGNITUDES TO THE MILLION OF POPULATION IN EUROPEAN COUNTRIES WHICH OCCURRED 1801-1903 INCLUSIVE.

Natives of the following countries.	Ratio of all plots by all classes of assassins per million of population.	Order.	Ratio of same by sane assassins only.	Order.	Ratio of all consummated attacks by sane and insane.	Order.	Ratio of attacks consummated by sane only.	Order.	Ratio of all mortal attacks.	Order.	Ratio of all mortal attacks by sane assassins.	Order.
Italy	1.535	1	1.390	1	1.214	1	1.071	2	0.642	2	0.642	2
Balkan Peninsula...	1.277	2	1.277	2	1.111	2	1.111	1	0.777	1	0.777	1
Iberian Peninsula...	1.200	3	0.950	3	1.050	3	0.800	3	0.450	3	0.400	3
France and Belgium...	1.044	4	0.733	4	0.911	4	0.600	4	0.200	5	0.155	6
Great Britain and Ireland...	0.714	5	0.371	6	0.629	5	0.314	6	0.250	4	0.171	5
Russia	0.587	6	0.550	5	0.512	6	0.487	5	0.187	6	0.187	4
Rest of Europe...	0.312	7	0.266	7	0.277	7	0.222	7	0.077	7	0.077	7

Natives of following countries per 1,000.	Ratio of all consummated attacks successful.	Order.	Ratio of these by sane assassins alone.	Order.	Ratio of consummated attacks against rulers and ministers successful.	Order.	Ratio of these by sane alone.	Order.
Italy	529	2	600	2	315	2	400	2
Balkan Peninsula...	700	1	700	1	615	1	615	1
Iberian Peninsula...	400	3	500	3	166	3	222	3
France	219	4	259	4	40	5	71	5
Great Britain...	409	5	545	5	100	6	000	6
Russia	365	6	384	6	142	4	142	4
Rest of Europe...	280	6	350	6	000	7	000	7

Natives of following countries per 1,000.	Ratio of all plots.	Order.	Ratio of plots by sane.	Order.	Ratio of all consummated attacks.	Order.	Ratio of plots by sane.	Order.	Ratio of all mortal attacks.	Order.	Ratio of mortal attacks by sane.	Order.
Italy	0.892	1	0.750	2	0.679	2	0.535	2	0.250	2	0.250	2
Balkan Peninsula...	0.898	2	0.888	1	0.722	1	0.722	1	0.444	1	0.444	1
Iberia	0.700	4	0.530	3	0.600	3	0.450	3	0.100	3	0.100	3
France	0.733	3	0.406	4	0.575	4	0.311	4	0.022	6	0.022	6
Great Britain...	0.342	5	0.114	7	0.285	5	0.057	7	0.028	4	0.000	7
Russia	0.237	6	0.237	5	0.175	7	0.175	5	0.025	5	0.025	4
Germany	0.200	7	0.155	6	0.177	6	0.133	6	0.000	7	0.000	7

The cases in the accompanying tables, A, B, and C, reveal that for those of the better classes among the natives of northern Europe and England political assassination has lost its attractions; and after having been left to the humbler, is being abandoned even by them. England has not had a political assassination by a sane man in seventy years. France few, if any, by Frenchmen since Salsou's failure on the Shah, and Germany has also had comparative quiet on this score since the Niederwald affair.

The prospects are that the world is not likely to see another Anglo-Saxon or Scandinavian assassin of sound mind; that if it shall have to record the achievements of Germanic assassins they will be few and far between; and that France will have as

sparse a record. It is elsewhere that the source of the tragedies of the future must be sought, and the

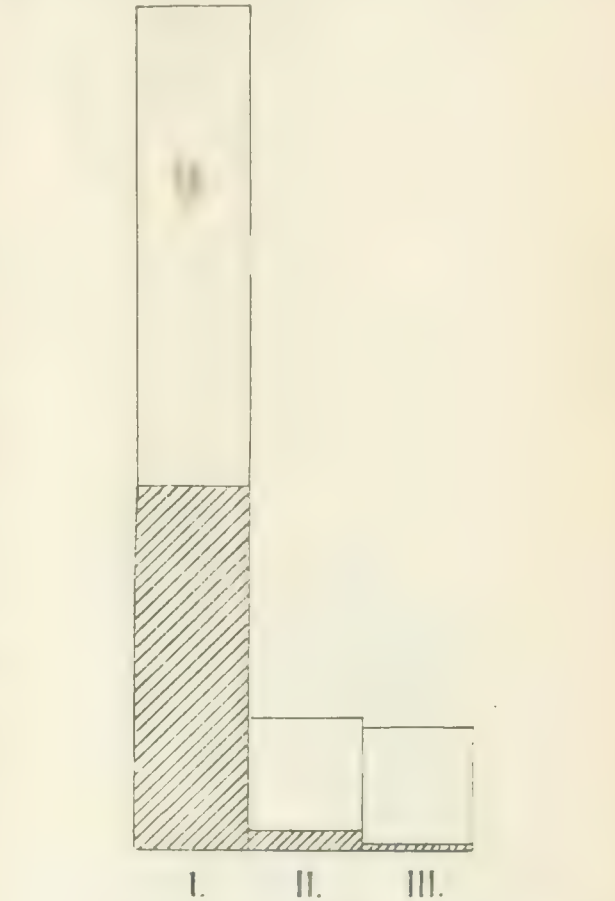


FIG. 1.—Shows proportion of magnicides per capita of population, committed by—I. Inhabitants of Southern Peninsulas: II. Russia, III. Rest of Europe. In all figures of this series the shading indicates the mortal attacks, the clear space the fiascoes and unconsummated plots.

indications point to the Balkan, Italian, and Iberian Peninsulas.

Of sovereigns, regents, ministers, and persons politically prominent or attacked for political reasons, there have been killed since 1800, by

Native of Balkan Peninsula.	Inhabitants.
Italians	1,500,000
Iberians	2,000,000
Russians	5,000,000
French and Belgians.....	9,000,000
Germans and Austrians.....	13,000,000
Scandinavians, Dutch, and Swiss.....	None.
Polish	None.

This refers exclusively to assassinations by the sane, as does the following table which shows the proportion of contemplated and perpetrated plots:

Population	Population
Italians were concerned in one plot for each.....	622,000
Balkanese were concerned in one plot for each.....	780,000
Iberians	900,000
Celto-Britons	920,000
French and Belgians.....	1,370,000

Russians	1,770,000
Germans, Austrians, Scandinavians, Swiss, and Dutch	5,000,000
English	8,333,000

A stock phrase employed by some to account for the frequency of assassination by Italians and Spaniards in the last decades is "economic conditions."

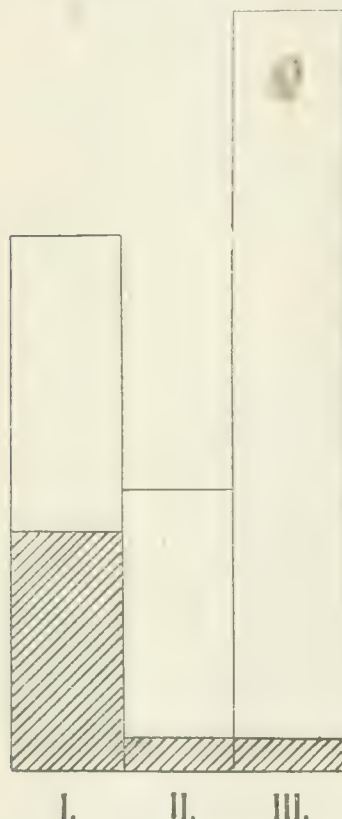


FIG. 2.—Shows relative proportion of same without reference to the population ratio.

Strangely, however, history does not show that, elsewhere and at other times, depressions have been marked by a plus of, or that prosperity was indicated by fewer, magnicides. The year 1870 separates periods in France and Germany respectively which were complementarily opposites. Before 1870 France was prosperous at home and, in the main, triumphant abroad; Germany, disunited and agitated by internecine feuds. After 1870 Germany had realized the dream of her best patriots, overthrown her hereditary foe, and enjoyed a period of unexampled progress and prosperity; while France, humiliated in the field and partly self-consumed in the commune, was in addition crushed under an enormous tribute exacted by the conqueror across the Rhine. Were political assassinations frequent in Germany and rare in France before, and rare in Germany and frequent in France after, 1870? On the contrary, the period from 1851 to 1870 saw only the Becker (a native of Russia) and Blind *attentats*, but the period from 1871 to 1890 witnessed Kullmann's, Hoedel's Nobiling's, the Reinsdorf *attentats*, and the Düsseldorf, Stuttgart, and

Strassburg explosions. France, contrariwise, with her series of Lahr, Bellamare, Bartolini, Orsini, Pianori, Rane—not to mention Berozewski, Verger, and Miller—before 1870, had, between 1871 and 1890, only assassinations on private grounds, and such as the ones made on Freycinet and Carnot by the so-called "false regicides." But when her war debts had been paid off and French prestige had reasserted itself, that pause came to an end, as the exploits of Ravachol, Vaillant, Emile Henry, and Salsou, together with the Parisian street and Café Very explosions show, without mentioning the Carnot tragedy or the Padlewsky and Stephanow *attentats*, these latter having been the work of aliens. The period of great depression following the Thirty Years' War was comparatively barren of such records in the lands which suffered most.

Before "economic conditions" may be thought to justify sentimental apologies for interesting regicides, let their advocates glance at countries other than Italy where like conditions obtain; and at former days, when conditions, worse than any of this day, prevailed. Till they shall have found any community presenting a parallel to the Italian as regards assassin activity, provoked by such crises, they may judge it best to reserve the plea based on "economic conditions" for use in some deserving case.

It is but a few months ago that two "boy anarchists" were turned back by the Immigration officials at the Port of New York. They are described as "typical Neapolitans, careless, graceful, and unconcerned in carriage," and one of them is stated to have revealed his intention of "killing a few men" on this side of the water.³

That these and their ilk are able to travel great distances, that an earlier anarchist-tourist possessed the means enabling him to cross the Atlantic six times, does not favor the "economic crisis" theory, as affecting the assassin coteries. Persons driven to emigrate from a poor to a prosperous country, on account of the former's straitened condition, do not reveal intentions of making a *début* in the land of refuge by assassinating their hosts. The fact is simply that these persons are emissaries of a systematic propaganda; as Galenga was an emissary of the Mazzinists. The chiefs of that propaganda are far from being the victims of privation or any other tangible result of the economic conditions.

This is consistent with an explanation based on actual conditions in Italy, but such conditions of longer standing than those pictured as existing in another of the three peninsulas, by Herbert Vivian.⁴

" . . . Many of the Bulgarian brigand-chiefs

³ Current Journals, Feb. 22, 1903; Case of Francesco Gumbo and Giuseppe Marino, excluded by the Immigration Commissioners as anarchists. The first-named professed his ability "to find plenty of friends if permitted to land," which, as the Italian secret societies in their international ramifications are organized, was probably no vain boast.

⁴ *Strand Magazine*, April, 1903.

are hardened conspirators, though, for the most part, the true politicians are content to sit safely

conceived as far more readily yielding to murderous impulses than those of other environment and inheritance. What requires the operation of a powerful provocation stimulus and the overcoming of



FIG. 3.—Shows magnicides committed by— I. Italians; II. Iberians; III. Rest of Europe except Russia.

at home in their arm chairs and direct operations from Geneva, or Paris, or Sofia. But many are enthusiasts, with the common anarchist's misguided ideas about tyranny and freedom. As will be readily understood, genuine enthusiasts are very often recruited from the ranks of the very young. . . ."

The writer quoted seems to have noted a metamorphosis of the Arnaut, Macedonian, and Klephth bandits into Balkanese anarchists, similar to that which transforms the Carbonari, Mafia and Camorra into Italian anarchists. Similarly, as in the Bulgarian case, the Italian head centre sits safely in London and takes the precaution of directing European operations through a Paterson and Buenos Ayres *détour*.

The members of a community which practises and glorifies assassination, and whose ancestors from time immemorial have done the like, may be



FIG. 4.—Shows magnicides committed in— I. Italy; II. Iberia; III. In the rest of Europe except Russia. The discrepancy with Fig. 3 is due to the commission of magnicides by Italians in other countries.

utilitarian as well as instinctive moral inhibitions in the average children of civilization, is, in such a one, in no such need; for the conception, the skill, and the tendency to the crime are dominant in their combination of inherited automatism and indelible instinct.

Where the Vendetta, instead of becoming abrogated with advancing culture, lingered, it soon lost what redeeming features as a rude form of natural justice it had, and acquired those refinements which render a felony doubly hideous and dangerous. No longer confined to the remote valley, the defense against neighbor encroachment and tribal aggression, it spread to the cities; and its perpetrators from champions *pro domo* degenerated into experts for hire. At the transition of the eighteenth to the nineteenth centuries every leading Milanese family had its staff of salaried bravos; and so familiarly simple had the practice of assassination become, that it was indulged in on trivial pretexts. The provocator of resentment and the obstacle to personal interests were alike and efficiently disposed of by this radical remedy.

(To be continued.)

PHLEGMASIA ALBA DOLENS AND ITS TREATMENT.

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The pathology of puerperal phlegmasia alba dolens is not as yet satisfactorily understood, principally on account of a lack of opportunity to study post mortem the acute stages of the disease. Phlegmasia dolens may, of course, occur in many diseases not associated with pregnancy or the puerperium, as tuberculosis, dysentery and general debility from various causes. It is not unreasonable to suppose that some of the factors operating in non-pregnant cases are present after delivery and decide in turning the scale from thrombophlebitis to phlegmasia dolens. Fordyce Barker states that "while its most uniform lesion is thrombophlebitis, its real nature is unknown," and it is possible to observe typical thrombophlebitis turn into phlegmasia dolens by the operation of that unknown cause.

Thrombophlebitis may occur without the characteristic sign of phlegmasia, but it plays such an important part when it does occur that we are inclined to believe that phlegmasia dolens is merely thrombophlebitis plus some prerequisite which Pepper concludes is some condition of the blood favoring the formation of venous coagula, but does not hint at what that condition may be.

Phlegmasia dolens in the puerperal woman may arise from three causes:

(1) Thrombophlebitis of the main or principal efferent vessels of an extremity having its origin in the placental sinuses.

(2) Traumatism inflicted upon the pelvic (the hæmorrhoidal, uterine, and vaginal plexuses) veins and lymphatics, especially in difficult and tedious labors.

(3) Infection from the entrance into the blood of bacteria or their toxins.

In normal labor, immediately following placental expulsion, thrombi fill the uterine sinuses as far as the external coat or layer. When these thrombi extend beyond this point into the pampiniform plexus lying between the folds of the broad ligament, the condition becomes pathological. Any cause that operates in preventing or retarding the normal contraction and retraction of the uterine muscular fibres predisposes to this pathological thrombotic extension. The two most frequent causes would be atony of the uterus and the retention of placental tissue in the uterine cavity whether in whole or in part. Atony of the uterus and placental retention play leading parts in the production

of post partum hæmorrhage, and, therefore, we would expect phlegmasia to occur more frequently after hæmorrhage, which is a well known clinical fact.

The rapid abstraction of fluids from the body in the absence of a wound, as in cholera, causes an increase in lymphatic activity. When there is an open wound the veins also carry on the work of absorption with great alacrity and carry into the general circulation whatever morbid products are present in the uterus. If, as is usually the case, the contents of the uterus are aseptic, small particles of decidua, blood clots or liquor amnii are carried into the blood, its predisposition to coagulation is materially increased—inopexia. The blood can and does receive certain substances without coagulating when they are necessary to its composition, are not too great in amount, and are presented in an acceptable form, as, for example, oxygen, salines and iron. But if these are introduced suddenly or in a concentrated form, coagulation occurs. It is well known that the entrance of any extraneous matter, as water, gases, air bubbles, etc., into the blood coagulates it more rapidly. In a given case, therefore, in which the uterus is relaxed and its sinuses imperfectly closed by muscular contraction, a rapid absorption following a sudden loss of blood, as from post partum hæmorrhage or placenta prævia, would carry past the border line any clots or decidua that may lie detached in the uterus. Having once passed beyond its border line it would take but a short time for the thrombus to extend to the pampiniform plexus through the internal iliac to the common iliac vein and thus attack the return circulation of the entire extremity. If the conditions are favorable the clot will extend to the inferior vena cava and involve both lower limbs consecutively. These clots show at times a marvelous facility for extension. This is well shown by the case, reported some years ago, of a little girl who died of diphtheria. At the autopsy it was found that a thrombus extended from the small veins of the left leg up to the femoral, iliac, and inferior vena cava to the right auricle of the heart, which was partly filled by the clot.

Traumatism may lead to phlegmasia in several ways. Extrinsic influences, such as pressure by a tumor or swelling upon a vein, may cause phlebitis and thrombosis. Pressure upon a vein causes a slowing of the current. Soon the red corpuscles are crowded to the centre of the bloodstream, while the leucocytes, moving more slowly, hug the walls closely. If the tunica intima is defective at any point of its course, a deposit of fibrin occurs. In other words, defective or roughened walls act similarly to a foreign body and cause coagulation of the blood.

The relation that the tunica intima bears to the tunica media and the surrounding tissues is very intimate. It draws its nourishment from the delicate vascular network in the outer coats and venous sheath, and when the integrity of these structures is impaired so as to cut off the food supply, fatty degeneration at once sets in. This is beautifully illustrated by the experiment of Nicasse, who separated a vein from its sheath for a certain distance, cutting off its vascular supply, and found a thrombus co-extensive with the area of denudation. On the other hand, the outer coat may undergo considerable degenerative change before the intima loses its smoothness and elasticity.

The occurrence of venous thrombosis during pregnancy may be explained by the pressure of the gravid uterus against the iliac vein. This is the so-called thrombosis of dilatation and affects chiefly the saphenous, tibial and peroneal veins.

Several cases have recently been reported in gynecological surgery in which thrombosis of the popliteal vein resulted from forced flexion of the leg upon the thigh, and of the femoral vein from flexion of the thigh upon the abdomen. The predilection of thrombophlebitis and the resultant phlegmasia for those regions most exposed to injury from pressure or stretching of the vein is something more than coincidence.

The pressure of the foetal head against the pelvic bones is made at the expense of the intervening tissues, including the veins and lymphatics. The wounds that so frequently occur in the perinæum act in a similar manner to the uterine lesion. Here, as elsewhere, any disturbance of the existing relations of the venous coats and sheath predisposes to a thrombosis that originates in the pelvic veins, but extends to the internal iliac, thus involving the limb. The foetal head may in like manner impinge upon the internal iliac vein near the sacroiliac joint and cause injury to its walls by direct pressure. That such disturbance does occur is often seen in cases of hæmorrhoids in which the obstruction to the return circulation in the hæmorrhoidal plexus is so great that Nature requires from several days to a week to enable her to relieve the congestion and absorb the venous coagula. While this condition is due in part to the congested and swollen circumvascular tissues, the coagula within the veins form the chief obstacle. When we consider the conditions it is surprising to find what an enormous amount of injury the tissues will stand before thrombosis occurs.

In the parturient canal two conditions are constantly present, a large wound offering facilities for absorption, and a morbid fluid ready to be absorbed. If this fluid is sterile, the aseptic throm-

bosis will undergo fatty degeneration and be absorbed later. If the fluid is infective, we not only expect to find phlebitis at the point predisposed but in other parts of the body as well. In short, we have the symptoms and signs of pyæmia and septicæmia superimposed upon those of thrombophlebitis.

Obstruction of the femoral vein itself does not cause phlegmasia dolens. When this vein is plugged up, the blood returns through the epigastric, circumflexiliac, iliolumbar, and gluteal veins. The congestion during the establishment of this anastomosis is so great that not only bloodserum, but also red corpuscles are forced out through the capillary stomata into the surrounding tissues. This serum has but slight coagulable properties. The areolæ are distended, but they are little affected. The lymphatic vessels are free to carry off the excess of fluid. Œdema begins at the foot and extends upward toward the trunk. Pitting is generally present. Bandaging the limb decreases its size materially. If free incisions are made in this œdematous tissue, serum escapes in great amount.

As shown by M. Wurtz, obstruction to the return circulation is followed by increased activity of the lymphatics. The converse also holds true. The failure of the lymphatics to perform their work results in the accumulation of lymph in the tissues, which either is forced out from the lymphchannels or fails to be absorbed and removed by them. When bloodserum comes in contact with fibrinogen, fibrinoplastin, and the fibrin ferment of the lymph, a gelatinoid substance is formed, similar to the transudate found in phlegmasia dolens. This transudate infiltrating the areolar tissues distends the cells and thickens the walls and gives to the leg the unyielding and waxy feeling characteristic of phlegmasia. The partial or semicoagulation of this lymphoid material while still in the tissues prevents its escape when the limb is incised and prevents pitting. When the accumulation is excessive, this lymphoid substance finds its way to the subcutaneous tissues and integument, where it appears in the form of vesicles filled with clear serum. By disturbing the relation of the hair follicles, the hairs fall out. Pressure upon the nervous plexuses causes the neuralgia and numbness frequently complained of at the outset.

Omitting traumatic cases, all tissue change is secondary to changes in the vascular system. Tissue cannot absorb fluid and produce change independently of the blood.

Cellular tissue may be injured wholly or in part and require the removal of the effete and destroyed material before restoration takes place. This results in adhesive inflammation.

Cellular tissue may be injured by the absorption of a poison or virus through the bloodstream, as in erysipelas, in which the natural powers are able to counteract the infection and destroy it. Here we have resolution.

Cellular tissue may be damaged to such an extent that nature is unable to rid herself of the poison and suppuration, hence abscess and slough follow. In more advanced states we have pyæmia.

Through the inability of the efferent vessels to carry away the excess of fluid in the tissues, a change occurs without inflammation, in which the parts are infiltrated by a semisolid substance which permeates all the soft tissues and constitutes a pathological picture of phlegmasia dolens.

The main factor in the ætiology is admitted by nearly all authors to be thrombophlebitis. Inasmuch as thrombophlebitis frequently occurs without the lesions of phlegmasia, some other determining cause or causes must be present. The intimate relation existing between the lymphatic and vascular systems and their complementary action lead one to ascribe some importance to the hypothesis of Tilbury Fox, that obstructive lymphangitis is the hitherto unknown factor. This view has been criticized on account of the fact that the predilection of phlebitis for the left limb, depending as it does upon the pressure of the iliac artery and the rectum against the left iliac vein, would not hold true were phlegmasia caused by lymphangitis. It seems more reasonable to take the middle ground and say that thrombophlebitis is the primary cause usually occurring on the left side for the above reasons. The increased activity of the lymphatics following this occlusion occurs in vessels the walls of which are weakened by œdematous infiltration or by preexisting debility from tuberculosis, dysentery, carcinoma, typhoid fever, etc. This weakening of the lymph wall causes thrombosis in a manner similar to its production in the veins. This, of course, only applies to the main vessels, for, should the entire group become thrombosed, gangrene sets in at once and the limb is destroyed.

The condition of the blood is also to be taken into account. Blood dyscrasia is operative chiefly in lowering the resistance of the vessel wall, allowing the generative changes to form the nucleus of a clot. Microorganisms floating in the blood or spreading by continuity of tissue produce the same results, but in a more direct and decisive manner.

During the period of pregnancy the treatment may be summed up in the word prophylaxis. The patient should be kept in the best condition possible, and all debilitating diseases resulting in an impoverished condition of the blood require the most careful attention. If the patient gives a history of

hæmorrhages in her former labors, it is well to place her upon small doses of calcium chloride for three or four weeks prior to the expected delivery. The increased coagulability of the blood by this method will reduce the danger of post partum hæmorrhage. At the onset of labor this danger should be considered and the third stage of labor be conducted accordingly. By anticipating this complication, from the birth of the foetus to an hour or more following placental delivery, and this should be the routine practice of every accoucheur, one of the most prolific causes can be frequently avoided and the hæmorrhage, if it occurs, be treated at the earliest possible moment.

Immediately following placental delivery careful inspection will determine whether the afterbirth has been expelled in its entirety or whether portions of it have been retained. When the placenta lying upon the hand assumes the same position as in the ante partum state, the absence in parts of that pale lustre, usually seen over the entire surface of the maternal aspect of the placenta, denotes the retention of the decidua serotina, while depressions and excavations show the retention of cotyledons in whole or in part. Attention should also be directed to the possibility of placenta succenturiata, as shown by the ruptured artery and its accompanying vein at the placental margin. The prompt retraction of the uterine muscular fibres, by arresting sudden liquid loss, will, in a great measure, prevent the entrance of extraneous matter into the system and nullify the danger of the locus minoris resistentiæ.

The second prophylactic measure is to guard against laceration. Certain tears, especially of the cervix and vagina, are unavoidable in every labor, but many of the more extensive tears may be avoided by proper treatment.

The writer has followed four rules for perineal protection with very satisfactory results:

(1) Deliver the patient on her side. This position brings the vaginal outlet into better view, allows easy removal of the discharges, and affords a better control of the head.

(2) Keep the head pressed against the symphysis pubis. This prevents any unnecessary dilatation of the vaginal outlet.

(3) Gradual dilatation of the pelvic outlet. It is well to allow the head to recede after each pain, thus restoring the perineal circulation and promoting effusion and relaxation.

(4) Deliver the head between pains. When the head is born as far as the occipitofrontal circumference, three fingers slip the thin edge of the perinæum over the face and chin with one movement of the hand. Should the pain be continuous, deliver the head when the patient catches her breath. The

advantages of an empty bladder and rectum at this time are obvious. We should interfere instrumentally when the head has been pounding upon an unyielding perineum for a period of two hours and a half subsequent to the complete dilatation of the cervix.

The motto of the obstetrician should be "asepsis and antiseptics ever and always." Asepsis is the ideal condition, but we are frequently only too glad to fall back upon thorough antiseptics. More mistakes are made with untoward results from the lack of surgical cleanliness than from any other cause. If one link in the chain of antiseptic preparation is broken, the whole work may come to naught. We should be clean "internally, externally and eternally."

When phlegmasia dolens has occurred despite our prophylaxis, the patient, if not in bed, should be placed there at once and kept quiet. The affected limb or limbs should be elevated upon an inclined plane and be enveloped in a compress of gauze retained by a roller bandage. The limb should be raised about six or seven inches, not more. During the acute stage much relief can be obtained by keeping these compresses as hot as can be borne. No massage should be allowed early in the disease.

For the pain morphine is at times indispensable. When less severe, codeine or antipyrine may be substituted. An excellent combination is the following:

Extracti opii (aqueous).....grain 1
 Extracti belladonnæ.....grain $\frac{1}{8}$
 Extracti cannabis indicæ.....grain $\frac{1}{4}$
 Extracti hyoscyami (alcoholic)....grain 1

Fiat pilula No. 1

Sig. Take a pill every three hours.

The bowels should be kept open by salines, preferably the magnesium sulphate. Cardiac tonics are indicated for many patients and for this, caffeine, strychnine, and strophanthus will best serve our purpose. Ammonium carbonate, in doses of ten to twenty grains, three times a day, is reputed effectually to hasten the absorption of the exudate.

When the subjective symptoms have ameliorated, measures should be taken to remove the semisolid material from the tissues. Gentle massage, gradually increasing in vigor, is of benefit after the first week. Probably the best method of treating the subacute stage of phlegmasia alba dolens is by the use of hot dry air. The earlier this treatment is instituted the better are the effects and *vice versa*.

The well-protected limb is subjected to a dry heat of 400° Fahrenheit, for an hour. A decided local diaphoresis will occur, and the inner layers of the towelling will be found saturated with serum. This moisture evaporates quickly by aid of the great heat

and thus the apparatus acts as a continuous drain. A certain amount of gelatinoid material must of necessity be removed with the serum by this method, while the circulation, augmented and stimulated, carries away still more of it. After the bath the limb is massaged and the treatment is daily given until great improvement is obtained. In some cases the bath is given twice daily, in others only 140 or three times a week.

The influence of this treatment upon the general system is noticeable. The appetite is increased, the bowels are regulated, sleep is produced and the skin becomes more active. As the limb returns to its former condition, the baths are used less frequently.

Potassium iodide, or preferably the potassium of mercury, is to be given for weeks and months, the latter in doses of a quarter of a grain four times daily. Calomel in small doses is also of advantage. The customary rules of hygiene and dietetics should be carefully carried out.

CHRONIC GASTRITIS.*

A CLINICAL STUDY OF SIX HUNDRED CASES.

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In the preparation of this paper I have availed myself of not only of all the liberty, but all the license of a clinical paper, and have rambled over the field without any pretence to system or comprehensiveness, neither of which in such a paper is perhaps expected or required. The questions raised and discussed, while important, might easily be duplicated by others of but little, if any, less importance in the very large field opened up by the subject of chronic gastritis. The mere question of time will prevent anything like a detailed analysis of all the data which might be gleaned from such a study.

The cases which form the basis of this paper have all occurred in the course of a private consultation practice, and therefore belong for the most part to the severer type of cases, which fail to respond to the measures of treatment instituted by the general practitioner, although it should be noted (a fact which will be emphasized later) that the main complaint for which they were referred was not always made with reference to the stomach. No dispensary cases are included, and probably 95 per cent. of all the cases were examined and treated in my office, thus giving the best opportunity for careful study and observation. In nearly all cases there was

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made, in addition to a routine chemical and microscopical examination of the stomach contents, a more or less complete study of the blood and of metabolism, as well as a routine microscopical examination of the fæces, and especially of material obtained by flushing the colon after evacuation of the bowels.¹

I will first make a brief statistical statement with reference to free HCl, sex, age and occupation, not attempting any tabulation of other points, but contenting myself with some general conclusions.

With reference to free HCl it should be stated that the basis of comparison is the conventional Ewald test breakfast. Other tests were used in special cases, but the obvious advantage of having a uniform standard is so great, furnishing as it does a coefficient available for comparison the world over, that it should be used as one of the methods of examination in every case. These cases have been divided into four groups, viz., those of nonacidity, subacidity, normal acidity and superacidity. The range of normal acidity and the consequent limitations of sub and superacidity must be arbitrarily determined, as there are considerable normal variations between different persons and in the same person at different times. That which is the normal acidity in one person may be a distinctly morbid superacidity in another. From 30 to 70 degrees has been assigned as the average normal range, although 50 degrees is the ordinary high limit, and from this to 70 degrees a debatable zone. Calculated upon this basis an analysis of these cases gives the following result:

Nonacidity.	Subacidity,	Normal acidity,	Super-
No Gunsbergh	less than	30 to 70°	acidity.
reaction.	30°	(.1 to .25 per	Over 70°.
20 per cent.	(.1 per cent. HCl)	cent. HCl)	20 per cent.
	26 per cent.	34 per cent.	

As having a special bearing upon the large percentage of cases of hyperchlorhydria, it ought perhaps to be said that my consulting practice includes other departments of internal medicine, and especially that of nervous diseases. It thus happened that a considerable number of cases were referred because of one or another sort of nervous complaint, the existing gastritis being either latent or at least symptomatically subordinated to the nervous manifestations, although frequently causing the latter. The gastritis was, in fact, often completely latent, and was only brought to light in the course

of a routine examination of the stomach, which was by degrees as time passed on gradually instituted in nearly all cases. This would naturally lead to a preponderance of cases with a neurotic basis.

In this connection, however, a question is raised of an entirely different, and indeed quite fundamental, character. This question is nothing less than the very essence and nature of chronic inflammation as found in the stomach wall. Not only is it impossible at the present time to formulate a generally acceptable definition of inflammation, but there is a lack of uniformity in the very concept of the process itself. Time would not permit a full discussion of this problem, even if I had the temerity to grapple with it. Without making the slightest pretence at constructing a working definition, it may, I think, be stated that inflammation is as a rule a morbid reaction on the part of the tissues against a chemical or mechanical irritation, the manifestation of which will vary with the structure and function of the tissue involved.

In the stomach excessive mucous and granular degeneration of the epithelial and glandular elements, exudation of leucocytes, excessive desquamation of the cellular elements of the gastric mucosa, and in the large majority of cases sooner or later, impairment of the HCl secretion, and later still, in a smaller proportion of cases, failure of digestive ferments, may be mentioned as the principal phenomena which may be clinically demonstrated by appropriate scientific methods. Not all of these conditions are constantly present in every case, even of considerable severity. Excessive amounts of mucus and cell-laden exudates are the earliest and most constant, and when these conditions are repeatedly found I have no hesitation in pronouncing the morbid process inflammatory in character, even though secretion may be normal or even excessive.

It is held by some who contend that diminished HCl is a constant factor in chronic gastritis that increased HCl is a phenomenon of its early stages. Sidney Martin and F. B. Turck hold this view, while Boas, Riegel and Oppler, in Germany, and I believe Hayem, in France, maintain the existence of an acid gastritis as a distinct type. Obviously the question is one that can only with difficulty be settled with our present very limited knowledge of the pathological anatomy of the milder grades of clinical chronic gastritis.

The well recognized fact of increased HCl secretion in some of the gastric neuroses would seem to indicate a neurosal factor in these cases. It would, perhaps, be better to label them as cases of gastric neurosis and gastritis combined. But, when I find, as I often do, excessive quantities of thick mucus saturated with HCl and containing the usual micro-

¹ I wish to refer to a paper read by Dr. J. C. McCleskey at the meeting of the American Medical Association at New Orleans, last week, in which he strongly advocated the routine examination of the fæces and said that it was being practised in several hospitals. It was advocated by myself as early as 1895, and has been constantly practised by

scopical findings of inflammation, I cannot doubt the coexistence, for at least a time, of chronic gastritis and increased HCl secretion. I have no doubt that many of these cases might, and probably would, terminate in diminished and even absent HCl secretion from ultimate destruction of the glandular elements.

Riegel well says that the proportion of cases of acid gastritis may easily vary in the experience of different clinicians, the proportion being larger the greater the number of cases seen early. This observation, together with the preponderance of neurosal cases, may go a long way toward explaining the abnormally large percentage of these cases in my own practice. Aside from this, however, I think it is quite possible that in some of my earlier cases the discrimination was not made with the desired accuracy, and that a few of the cases should be regarded as neuroses. This would, however, only affect, and that very slightly, the question of percentage, and would not have any bearing on the main contention as to the coexistence of these conditions.

When we reflect that in cases which are fairly well established as being functional or nervous in character, the quantity of free HCl is often increased to two or three times the normal amount, it appears to me quite plausible that there might be a marked increase of HCl, even though a considerable percentage of the oxyntic cells was destroyed by mucoid or granular degeneration, the remaining morbidly active cells being quite equal to the task.

Another possible explanation is the limitation of the inflammatory process to the areas of the stomach not specially concerned in HCl secretion. Ewald says that the portion of the stomach usually involved in chronic gastritis is the pylorus, although the process may extend to the fundus. The principal area of HCl secretion might, therefore, be not at all involved, or be the seat of a mild irritation which in neurotic cases would even favor excessive HCl formation.

On the other hand, it seems quite probable that primary hyperchlorhydria existing as a pure neurosis may play an ætiological rôle in the production of chronic gastritis.

I cannot pursue this question further, and will only add that the exclusion of chronic gastritis on the sole ground of increased HCl does not appear to me justified. If a proper search fails to reveal the evidence of inflammation, then, and not till then, is this conclusion established. Even then we may be led into error. The simple introduction of plain water is not sufficient, if negative results are obtained. The use of solvents or Turck's gyromele may still reveal the presence of excessive mucus

formation, which, as Ewald has clearly pointed out, may be firmly adherent to the mucosa.

With regard to sex, 53 per cent. of all patients were males and 47 per cent. females.

From the standpoint of age the cases were divided into three groups, viz.: under twenty, twenty to forty, and over forty years. The first group contains 10 per cent., the second 53 per cent., and the third 37 per cent. The youngest patient was four years and the oldest sixty-nine.

The question of occupation is less simply dealt with. The cases are recorded under twenty-five distinct occupations.

Nearly one-half of all the cases (49 per cent.) were recorded as housewives (33 per cent.), and farmers (16 per cent.), the remaining occupations furnishing each from 1 to 5 per cent. There did not seem to be a sufficient reason for studying these numerous occupations in detail in a review like the present one, which aims at general, rather than detailed, conclusions. The various occupations have, therefore, been divided into three groups, viz., outdoor, indoor active and indoor sedentary. Some of the indoor occupations were doubtful in regard to their location in one or the other group. As a matter of fact, all the indoor occupations, with very few exceptions, are relatively sedentary. It was found that only 28 per cent. of all the subjects were engaged in outdoor occupations, and it will be recollected that 16 per cent. of these are farmers, leaving only 12 per cent. of the subjects belonging to other outdoor occupations. This leaves 72 per cent. following indoor occupations, and of these 42 per cent. are classed as active and 30 per cent. as sedentary, showing a decided influence of such exercise as appertains to certain phases of indoor life.

I do not care to discuss fully the diagnosis of chronic gastritis, but will content myself with a brief reference to a few points. The frequent latency of the disease is one of the phenomena to which I desire to call especial attention. Hemmeter and others refer to the occasional absence of symptoms in chronic gastritis. In my own experience this has occurred many times. It has frequently happened—in cases which have been referred because of severe nutritional disturbance, with a view of determining the underlying causes—that varying grades of chronic gastritis have been found with a complete absence of symptoms. In some of these cases, however, the latency is more apparent than real. In some cases, in which the patients positively deny all indications of stomach trouble, close questioning will bring out one or another of the symptoms of disturbance of gastric function. After completely eliminating these cases, however, there still remains in my list a comparatively

large number of cases in which quite severe grades of chronic gastritis were present, with complete absence of stomach symptoms. This is so frequently true that I make it a general rule to examine the stomach in all obscure cases of chronic nutritional disease when the consent of the patient can be obtained. This can nearly always be done. Herein, I think, lies the chief importance of this observation.

Another point to which I desire to refer is the motor power of the stomach in cases of chronic gastritis. Boas, Hemmeter, Einhorn and others make the general statement that gastric motility is slightly, if at all, impaired in chronic gastritis. With Riegel, however, I have found what appears to me to be evidence of its frequent disturbance. It may, of course, be exceptionally increased, but in the majority of cases there seems to me to be the evidence of impairment. Among the data upon which this conclusion is based may be mentioned an abnormally large quantity of fluid obtained with the Ewald test meal; too long a period for the digestion of food; the finding in the fasting stomach of many fragments of food *débris*; and, finally, the occasional development of varying grades of ectasia, usually very slight, but sometimes quite severe. I am quite well aware that, with the exception of the ectasia, the interpretation of these facts may be questioned. This is especially true of prolonged digestion, which may be due in large part to defective chemical action. But I am firmly convinced that in these cases moderate motor weakness plays an important rôle. In the case of retention of fluid material, however, such as is frequently observed in removing the Ewald test meal, this cannot be true; and unless a purely hypothetical pyloric stenosis or excessive secretion is assumed, it is probably due to lack of muscle tone. In many cases the atony of the gastric musculature ought to be regarded, at least to some small extent, as a part of the general atony of subnutrition. In others, however, it is out of all proportion to it and is obviously produced in some way, by the associated gastritis, as a direct local result of the inflammation or as a secondary result of overdistention by the gaseous products of fermentation. The resulting ectasias are, in my opinion, largely amenable to treatment. Recession of the lower border furnishes at once the proof of therapeutic results and evidence of pre-existing motor weakness. A due recognition of the associated atony is important because of its therapeutic indications, and I believe it is present in most, if not all, the asthenic cases.

The rational treatment of chronic gastritis requires a comprehensive recognition of all the morbid conditions, local and general, presented by the individual case, and of all the associated diseases of other organs; and might be said to be general,

local, and collateral. It is, therefore, obviously impossible to formulate a treatment which will be applicable in all cases. It is also manifestly impossible within the scope of this essay to discuss fully every detail in the therapy of chronic gastritis. For this reason I will only attempt to give the more general conclusions resulting from my own experience, correlated with a careful study of the methods of other clinicians.

The general treatment appears to me to be of the first importance and is based upon a careful study of nutrition, metabolism, elimination, the vascular and nervous mechanisms, and the blood. A very large majority of my subjects of chronic gastritis were suffering from varying grades of subnutrition. In meeting this fundamental indication it is my practice, after one or two cleansing, disinfecting, and local stimulating treatments of the stomach, to place the patient on at least two daily liberal meals of meat, stale bread and well cooked cereals, with a light noon meal of broth and some cereal food. This is tentative. If it is tolerated and the latent function is stimulated to meet the demand, the progress of the case will be mainly satisfactory. If not, the diet must be modified to meet the case. It has been a matter of constant surprise to me, however, how large a proportion of cases with achlorhydria or very low acidity will tolerate such a diet. My experience is that patients do not suffer materially more with such a meal than with "slop diet." I think it is only practicable, at least in many cases, when associated with suitable local treatment, and if this is interrupted too soon, the diet will require modification. The lowered state of nutrition so generally present, in which the stomach shares, and which stands as an insurmountable bar to substantial progress, makes any attempt at full nutrition from the outset worth a trial in most cases.

Another very important matter is the adequate removal from the body of the waste and toxic material. Elimination should be considered as cellular and somatic, the latter including the action of the great emunctories; the former the removal by the blood and lymph streams of the products of molecular disintegration. Both of these functions are absolutely dependent upon the tonus of the vascular apparatus. This is always defective in the asthenic cases. In my experience, Gaertner's tonometer commonly registers 50 to 90 m.m. of Hg. This has much to do with the impairment of gastric function. The cerebrospinal nervous system and its subordinate parts, the sympathetic, are equally dependent upon the blood tension. Gastric innervation is thus impaired. Metabolism itself is closely interwoven with these factors. The basal importance of adequately dealing with these conditions in the

treatment of chronic gastritis is thus made obvious. The therapeutic indications arising from these considerations can be met in a variety of ways. The fundamental importance of adequate nutrition has already been indicated. Among the therapeutic measures of a general character, to some of which I constantly resort, may be mentioned hydrotherapy, electricity, massage, chamber gymnastics, and outdoor exercise. Hydrotherapy appears to me to be such a powerful auxiliary in the treatment of chronic gastritis, and, in fact, in most forms of gastrointestinal diseases, that I consider it little less than indispensable in the severer cases, and an aid in practically all. The technique cannot be entered into here. I consider it so important that I have rooms fitted up in connection with my office and keep trained assistants to give hydropathic treatment, and they are, of course, utilized for electrical treatment, massage, etc. Where none of these facilities are available, however, a great deal can still be accomplished by simple procedures which the patient can carry out at home with proper instruction.

Chamber gymnastics, combined with deep breathing, are of the utmost importance, both with a view to secure prompt therapeutic results, and especially to give to those results the stamp of permanence. The weakness of a feeble musculature is shown by all the viscera, and especially by the heart and digestive canal. The advantage and importance of properly graded, intelligently directed outdoor exercise are too obvious to require comment. General faradaization is an important method of general treatment in suitable cases. As a local measure, it will be referred to again. General tonic medication is of some service in refractory cases, although it is not a sheet anchor, but an occasional useful auxiliary.

I have thus outlined the general management of chronic gastritis, from the standpoint of my personal experience and practice, because it appears to me to be of the first importance. Without a doubt, some patients will recover with adequate general treatment alone, and without it less prompt results will be secured from local measures. The local treatment, however, is scarcely less important than the general. In fact, in all severe cases, both are indispensable to the best interests of the patient.

The local treatment of chronic gastritis is based upon, and is strictly in accordance with, the accepted principles of therapeutics. The dermatologist, the ophthalmologist, and the gynecologist, when dealing with accessible surfaces, make their principal attack by local medication, backed up by suitable general measures. It is probably true that many of their patients recover under general treatment alone; but it is certainly the consensus of their opinion that local measures are important and for the

most part indispensable. This observation, somewhat superfluous before this association, is made because of the occasional utterances of men whose standing in general medicine or collateral specialties might give to those utterances a currency to which, in my opinion, they are not entitled. Patients vary widely in the amount of disturbance which the introduction of the stomach tube causes. I have had a few cases in which the tube caused so much disturbance that it seemed best not to insist on the treatment. These are, however, exceptional cases, and the difficulty has always been overcome when necessary.

In the way of local treatment, lavage is the oldest, the simplest and the most abused of all methods. It is indicated, in my opinion, as a routine measure, only in cases where there is a considerable amount of mucus or other *débris*. Alkaline solvents should be used if there is thick, tenacious mucus, and suitable aseptic, astringent, or other medication applied to the cleansed mucosa. In my own practice such treatments are given daily for a short but variable time, or sometimes only every other day. The limit of its usefulness has been reached, in my opinion, when the quantity of *débris* found in the fasting stomach does not continue to decrease from day to day. The long continued use of lavage should be utterly condemned. It should only be practised under the immediate supervision of the physician, and rarely, if ever, by the patient in a routine manner, the effects of the treatment being closely watched, and it should be stopped when its usefulness has ended.

Electricity has, I think, been of great help in the treatment of chronic gastritis. Just how it exerts its favorable influence may be a matter of dispute; but, that it does so, I am fully convinced by what I deem ample clinical observation. I generally use faradaism with an intragastric electrode, using for this purpose either Einhorn's deglutable electrode or a dental cable with a small olive tip, which is either introduced with the tube or inserted through it, and which may previously or subsequently have been used for other therapeutic methods. The percutaneous method is of marked value in cases in which the intragastric method is not available, and can be used long after the other has been stopped, or even as supplementary to it. I have shown experimentally, in a paper presented to this association last year, by what appears to me to be an absolute demonstration, that currents thus applied do penetrate the stomach wall.

Another method to which I assign a high value in properly selected cases is the intragastric application of finely divided medicaments. When a small amount of a concentrated medicament in the spray form is to be used I employ Einhorn's appa-

ratus. If I desire the milder action of a medication combined with a petroleum base, Turck's nebulizer is the best, associated with gymnastics of the stomach wall produced by distention of the stomach with air, and its subsequent spontaneous contraction. This is repeated many times, and its influence upon the musculature and blood and lymph circulation of the stomach I believe to be very great.

I have lately, also, been using Tuick's gyromele, in properly selected refractory cases, with undoubted benefit. I had entirely rejected this instrument, as originally constructed by Dr. Turck with a sponge covering on the gastric end of the cable, as I occasionally found its surface flecked with a little blood. As recently modified by him, using absorbent cotton covered with a thin rubber finger cot, it is free from objection on the score of excessive local irritation, and is a valuable method of producing intragastric vibratory massage. On several different occasions cases of mine which had been stationary have shown prompt improvement with its employment.

Another method which I have been using recently, and I think with benefit, is electric vibratory massage, applied over the stomach, which may to advantage be distended with air.

Care should be taken not to overtreat the stomach in cases of chronic gastritis. It is easily possible to continue vigorous local treatments too long, or to employ them too frequently. Cases vary so much that no general rule can be formulated. The methods to be selected and the vigor and periods of their application must be suited to the individual case after a careful study of all its factors. Upon the judicious combination of general and local measures, based upon a thorough clinical study of each case, the issue will very largely depend.

DOUBLE EXTRAUTERINE PREGNANCY.

By SWITHIN CHANDLER, M. D.,

PHILADELPHIA.

A short while ago I had the pleasure to report, under the title *Foreign Bodies in the Bladder*, two similar and unique cases. Now, in order to follow out a series apparently, come two cases of what one may call true and false extrauterine pregnancy.

The report of both cases will demonstrate the difficulty of differential diagnosis between them, and will also give record of a double tubal pregnancy, which adds interest, and at the time of diagnosis caused much thought.

The first to come under my care was the case of the true extrauterine pregnancy. The history and result are as follows:

CASE.—A white woman, aged twenty-six years. The previous family and personal history negative. At the age of twenty years she married. Three weeks afterward she had a profuse yellowish discharge, accompanied by much pain and burning upon urinating; also general distress and pain in the genital organs. Undoubtedly a case of gonorrhœa. She was never completely free from the pains in the pelvic region. She was always regular in her periods until her twenty-fifth year or fifth year of married life. In July, 1902, the menses ceased; and she was informed that she was pregnant. One month later, her pains in the pelvic region became worse. On September 18th she had an attack of so-called peritonitis, which lasted until the first week in October, when she is supposed to have had a miscarriage. From this she recovered, and on October 30th her regular flow appeared. This is the last time she saw it until after the operation. In January she had a severe pain in the left pelvic region and fainted. All vitality seemed suppressed. It was then that she came under my care. After learning the history, an examination was made and two tumors were found, one on each side, the left being the larger. Both were adherent and both were shaped like a greatly enlarged tube. A diagnosis of extrauterine pregnancy in the left side, with a probably old one in the right tube. Immediate operation being decided upon, the diagnosis was confirmed. On the right side were parts of a fœtus and membranes, which gave indication of the first impregnation occurring in July. It was in the tube which had probably been the seat of gonorrhœa. On the left side, a recent pregnancy. The fœtus was killed at the time of operation or just before, as it was in perfect condition. Both pregnancies were confined to the tubes. The woman quickly recovered.

The second case was the false pregnancy. She reported her history as follows:

White. Age thirty-three years. Mother of six children. After the last child was born, she suffered much pain in the pelvic region. At the age of thirty years, one year after last child was born, she had a yellowish discharge, acrid burning upon urethra action, and general inflammatory change in the genital tract. This was promptly followed by an attack of peritonitis. The menses stopped three weeks before the said attack. She became very weak and had fainting attacks. One week after peritonitis developed a great flow of blood, fresh and clotted, came on, and was thought to be a miscarriage. She made a very slow recovery, having ever since sickness at the stomach and more or less pelvic pains. At the age of thirty-two years, just one year ago, she had a similar trouble with all the same symptoms. This again was thought to be a miscarriage. Again the same slow recovery leaving her with posterior headache, sick and irritable stomach, feverishness, disturbed and sore bowels, pain in the pelvic regions, irregular menses, and a continual yellowish discharge from the vagina. Also classical symptoms of uterine displacement.

Upon examination it was found that she had on the left side a tumor, the size of a small peach

in the extremity of the tube or in the ovary. It was soft and adherent. On the right side a larger tumor with the same characteristics. Both were somewhat round. The right tumor was the size of an orange. The uterus was retroplaced. The posterior wall of the vagina, the perinæum and the cervix were torn. A continual discharge came from the cervix. The woman was much emaciated. Operation was performed and both tumors were sent to Dr. Springer, at the Presbyterian Hospital, who reported them to be only bloody cysts of the ovaries. The patient made a very fine recovery, in spite of the fact that the wall of the right tumor was so thin it broke upon lifting it with the finger, and the contents spread throughout the pelvic cavity.

If but for a moment we compare the two cases we can see the similarity.

Case I.	Case II.
Inflammatory change in genital tract.	Same.
Sick stomach, disturbed functions of alimentary tract.	Same.
Two cessations of menstrual flow.	Same.
Two reports of miscarriages.	Same.
Attacks of peritonitis.	Same.
Classical pelvic disturbances with weak spells.	Same, or nearly so.
Two tumors in region of tubes.	Same.

Both had similar histories.

So we might continue the similarity further and fully realize the difficulty of the diagnosis between the two.

We were assisted in our diagnosis by the fact that Case I was a typical one of extrauterine pregnancy, while Case II showed a deviation from the classical symptoms. Again, the tumor was a little too soft and round, with too great fluctuation. There was also absence of the ovaries, except as corresponding to the tumors. This was borne out as reported. Although we are robbed of this last case as one of extrauterine pregnancy, it does give us a stimulus to thoughtful diagnosis, especially as it comes so closely upon a true case of double extrauterine pregnancy, which is in itself intensely interesting. It is with pleasure that I thank Dr. George W. K. Forrest and Dr. Harold Springer, of Wilmington, Delaware, and Dr. Walter Cornell, of Philadelphia, for their great assistance and the after examination of specimen.

2010 CHESTNUT STREET.

Race Suicide in England.—Dr. Griffiths, President of the British Medical Association, at the last meeting of that body, stated in his address, that over 60,000 lives were sacrificed annually in Great Britain, that could be preserved by seven moderate improvements in the sanitary law. This loss is largely among children under one year of age, and, along with the diminished birth rate, presents ugly facts that are discreditable to the country, and to modern civilization.

Therapeutical Notes.

Treatment of Seborrhœa of the Scalp.—First treat the digestive tract (*Journal des praticiens*) with laxatives and a diet suitable to the arthritic diathesis. The first of the following formulæ is intended to remove the excess of oily secretion. It is known as Hillairet's solution:

- R Borax12 grammes (3 drachms).
Sulphuric ether15 grammes (4 drachms).
Water250 grammes (8 ounces).

M. Shake well before using.

To modify the glandular secretion, use:

- R Potassium sulphide1 gramme (15 grains);
Tincture of benzoin,2 grammes (30 minims);
or extract of violets
Water100 grammes (3 ounces).

M. Wash for scalp.

Finally, to encourage the growth of the hair:

- R Flowers of sulphur20 centigrammes (3 grains);
Castor oil40 centigrammes (6 minims);
Glacial acetic acid1 gramme (15 minims);
Resorcin2 grammes (30 grains);
Chloral hydrate4 grammes (60 grains);
Tincture of jaborandi5 grammes (75 minims);
Tincture of cantharides10 grammes (150 minims);
Alcohol, 90 per cent200 grammes (6 ounces).

M. Hair tonic.

For loss of hair following pregnancy or typhoid fever, the following is preferable:

- R Chloroform
Tincture of benzoin } of each4 grammes
Castor oil } (1 drachm);
Pine tar40 centigrammes (6 minims);
Alcohol200 grammes (6 ounces).

M. For the hair.

For Epistaxis.—Bleeding at the nose in old arteriosclerotics should not be meddled with (*Journal médical de Bruxelles*, June 25th). Mustard plasters on the thighs, raising the arms, hot poultices on the back of the neck, are popular remedies. The practitioner may use either of the following snuffs:

- R Antipyrine10 grammes (150 grains).
Cocaine hydrochloride1 gramme (15 grains).

M. For a snuff.

- R Dry extract of hamamelis1 gramme (15 grains);
Antipyrine10 grammes (150 grains).

M. For a snuff.

Pure antipyrine may also be used, its hemostatic action having been established by Hénoque, Huchard, and Arduin. Of liquids, pure hydrogen dioxide, lemon juice, are useful, or suprarenal extract, 1 to 1000, forty drops to half a drachm of water. Iron perchloride is discredited, but if nothing better be at hand, it may be used as follows:

- R Tincture iron perchloride10 grammes (150 minims);
Distilled water20 grammes (5 drachms).

M. For nasal application.

Canot injects a gelatinized serum.

- R Gelatin10 grammes (150 grains);
Salt water, 7 to 1001 litre (1 quart);
Mercury bichloride1 gramme (15 grains).

M. For a nasal spray or application.

A tampon, saturated in the following solution, may be held in the affected nostril for five minutes:

- R Cocaine hydrochloride1 gramme (15 grains);
Distilled water10 grammes (150 minims).

M. For nasal application.

An Ointment for Baldness.—Lassar (*Les nouveaux remèdes*, July 24th) recommends the following, to be used in the morning after a shampoo with soap:

- R Pilocarpine hydrochloride...2 grammes (30 grains);
Quinine hydrochloride....4 grammes (1 drachm);
Precipitated sulphur...10 grammes (2½ drachms);
Peruvian balsam.....20 grammes (5 drachms);
Beef marrow, enough to make.....100 grammes (3 ounces).

M. Ointment for scalp.

A Tonic and Stimulant Potion.—Brocq (*Revue française de médecine et de chirurgie*, July 27th) recommends the following in pneumonia, and all adynamic conditions:

- R Ammoniacal liquor with anise.....2½ grammes (37 minims);
Syrup of orange flower...50 grammes (1½ ounces);
Infusion of borage.....100 grammes (3 ounces);
Ammonium acetate....10 grammes (2½ drachms);
Tincture of orange peel } of each.....8 grammes (2 drachms);
Tincture of cinnamon }
Syrup of cinchona.....50 grammes (1½ ounces);
Distilled water.....100 grammes (3 ounces).

M. Teaspoonful every hour.

Hygiene of the Mouth.—*Journal des praticiens*, July 23rd, gives several formulæ valuable as dentifrices and mouthwashes, being, as it says, antiseptic, and of agreeable odor and flavor:

- R Salol10 grammes (150 grains);
Spirits of scurvy-grass } of each.....40 grammes (10 drachms);
Spirits of lavender }
Spirits of mint } of each.....20 grammes (5 drachms);
Spirits of lemon }

M. Mouthwash. A teaspoonful in a glass of water.

- R Thymol2 grammes (30 grains);
Tincture of pyrethrum....60 grammes (2 ounces);
Tincture of vanilla.....10 grammes (150 minims);
Spirits of rosemary } of each.....25 grammes (6 drachms);
Spirits of roses }

M. A few drops in a half glassful of water.

- R Resorcin } of each.....8 grammes (2 drachms);
Salol }
Spirits of lavender.....120 grammes (3½ ounces).

M. A teaspoonful in a glass of water.

Charcoal is the best dentifrice. It should be mixed with sufficient white powder to lose its color. The following powder is gray:

- R Vegetable charcoal.....5 grammes (75 grains);
Magnesium carbonate....20 grammes (5 drachms);
Sodium bicarbonate } of each.....2½ grammes (37 grains);
Salol }
Essence of mint.....10 centigrammes (1½ grains);

M. Toothpowder.

- R Vegetable charcoal.....5 grammes (75 grains);
Powdered cinchona.....20 grammes (5 drachms);
Resorcin1 gramme (15 grains);
Essence of cloves.....5 drops.

M. Toothpowder.

If the patient insists on a white powder, give:

- R Boric acid.....5 grammes (75 grains);
Magnesium carbonate } of each.....10 grammes (150 grains);
Powdered chalk }
Essence of roses.....5 drops.

M. Toothpowder.

If a rosecolored powder is desired, add five centigrammes of carmine to the preceding.

For Pruritus.—Brocq (*Revue française de médecine et de chirurgie*, July 27th) gives the two following formulæ, as valuable in pruritus:

- R Resorcin25 centigrammes (4 grains);
Calomel75 centigrammes (12 grains);
Zinc oxide.....2 grammes (30 grains);
Lanolin } of each.....10 grammes (2½ drachms);
Vaseline }

M. For an ointment.

- R Lanolin15 grammes (225 grains);
Vaseline25 grammes (375 grains);
Menthol30 centigrammes (4½ grains);
Carbolic acid.....40 centigrammes (6 grains);
Salicylic acid.....3 grammes (45 grains);
Zinc oxide.....10 grammes (150 grains).

M. For an ointment.

Laxatives for Adults.—*Presse médicale* for July 25th gives the following formulæ for laxatives for adults:

- R Fluid extract of buckthorn.....50 grammes (12½ drachms);
Fluid extract of cascara.....50 grammes (12½ drachms);
Pure glycerin.....30 grammes (7½ drachms).

M. One or two teaspoonfuls in sweetened water, at bedtime.

- R Extract of cascara.....5 centigrammes (¾ grain);
Podophyllin1 centigramme (⅓ grain);
Extract of hyoscyamus..1 centigramme (⅓ grain);
Euonymin3 centigrammes (⅓ grain);
Powdered soap.....9. S.

M. One pill; one or two at bedtime.

- R Euonymin } of each...2 centigrammes (⅓ grain);
Podophyllin }
Extract of Canadian hydrastis } of each.....3 centigrammes (⅓ grain);
Powdered soap }

M. One pill; take at bedtime.

A Sedative in Traumatism.—V. Thébault (*Progrès médical*, July 25th) recommends the following to be given internally when treating traumatic amputation of the fingers:

- R Potassium bromide } of each..1 gramme (15 grains);
Sodium bromide }
Tincture of strychnine } of each.....15 drops;
Tincture of belladonna }
Syrup of chloral.....20 grammes (5 drachms).

M. One dose.

Pruritus of Vulva.—Verchère (*Revue médicale du Canada*, quoting *Annales de thérapeutique*) says corrosive sublimate is the best remedy for vulvar pruritus, used as follows:

- R Mercury bichloride.....2 grammes (30 grains);
Alcohol10 grammes (2½ drachms);
Hydrolate of roses.....40 grammes (10 drachms);
Distilled water.....450 grammes (14 ounces).

M. For a lotion, twice a day.

B. Naphthol, suspended in olive oil, is useful:

- R Naphthol B.....5 grammes (75 grains);
Olive oil.....50 grammes (1½ ounces).

M. Use twice daily.

Diagnosis As a Fine Art.—The *Chemist and Druggist* is responsible for the following: Doctor: "James, did that lady in the waiting-room come in her own carriage or in a tramcar?" Servant: "Tramcar, sir." Doctor: "Thanks. I couldn't tell from her dress whether to prescribe three months at Harrogate or sulphur-and-treacle."

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FRANK P. FOSTER, M.D., KENNETH W. MILLICAN, M.R.C.S.
Editor. Associate Editor.

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NEW YORK, SATURDAY, AUGUST 15, 1903.

THE BRITISH MEDICAL ASSOCIATION
ADDRESSES.

The formal addresses delivered at the recent Swansea meeting of the British Medical Association, its seventy-first annual meeting, were, as is usual with the proceedings of that body, of a character to command attention and respect. The president, Dr. T. D. Griffiths, chose for his subject *The Evolution of Antiseptic Surgery and its Influence on the Progress and Advancement of Bacteriology and Therapeutics*. After mentioning the fact that Schwann's discovery of organic germs in the atmosphere led to Pasteur's formulation of the theory that fermentation was never excited except under the influence of microscopic organisms, and that each particular organism set up a peculiar sort of fermentation, Dr. Griffiths went on to say that Lister, aided by the results of Pasteur's researches, arrived at the conclusion that suppuration was due to decomposition—putrefaction—and naturally evolved the idea that, if decomposition of blood serum and destroyed tissue in wounds could be prevented, "Nature would repair the parts much in the same way as she did in cases of simple fracture." Applying this idea, Lister "used carbolic acid as his antiseptic agent." Dr. Griffiths did well to use the word "aided," for Lister had, though somewhat stumbingly, previously experimented with certain agents which he looked upon as astringents; we must therefore give him the credit of having, at first, set to work to combat suppuration quite independently of Pasteur's discoveries.

The address in medicine, by Dr. Frederick T. Roberts, dealt with the subject of Infective and Infectious Diseases, "The term 'infective,' according to modern teaching," says Dr. Roberts, "has come to have a very precise pathological signification, founded on a scientific basis, and the outcome of the researches and experimental investigations of Pasteur, Lister, Koch, and their followers." The distinction of "infective" from "infectious," if we remember aright, was early insisted upon by the late Dr. Francis E. Anstie, a brilliant London physician who died while still only on the threshold of a most promising career.

The address in surgery, entitled *Observations on the Evolution of Abdominal Surgery from Personal Reminiscences Extending over a Third of a Century and the Performance of 2,000 Operations*, was delivered by A. W. Mayo Robson, F. R. C. S. Apparently it is not from national prejudice that Mr. Robson slurs over McDowell's early work in ovariectomy, for he does full justice to Fitz for his studies of appendicular disease, to Senn for his researches in diseases of the pancreas, and to Murphy for the device of the button. If the address makes British achievements in abdominal surgery somewhat more prominent than might seem justified in some other communities, it is perhaps no more than natural in an address before a British society. The address is interesting and instructive, but we regret to note in it some slips of diction that such a dignified occasion ought, it seems to us, to have led the author to eliminate. "In St. Thomas's," says Mr. Robson, "there was 1 ovariectomy, which died, and there were 14 herniotomies, of which 8 died." Now, how can an *operation* die? Again, "Up to 1883 every case of intraperitoneal rupture of the bladder had died, but in that year the late Sir William MacCormac operated on and saved two lives." How can a *case* die, and how can a *life* be operated on? But it is in proof sheets (kindly furnished by the *British Medical Journal*), perhaps unrevised, that we find these blemishes.

THE NEW JERSEY LICENSE REQUIREMENTS.

Printed documents recently issued give ample evidence of the thoroughness with which tests of study and attainments are now applied by the State Board of Medical Examiners under the statute. As regards academic requirements, a

candidate for examination must present a certificate or diploma issued after four years of study in a normal, manual training, or high school of the first grade in the State or in a legally constituted academy, seminary, or institute of equal grade; a student's certificate of examination for admission to the freshman class of a reputable literary college; or a certificate from the State Superintendent of Public Instruction that the candidate's academic education is considered and accepted by him as fully equivalent to either of the two other requirements. Failure to comply with any of these requirements subjects the candidate to the necessity of passing an academic examination such as is given to applicants for appointment as teachers. Among the subjects covered in such an examination are arithmetic, algebra, plane and solid geometry, physics, botany, chemistry, English grammar, orthography, United States history, Latin, Greek, French, and German. The candidate is not, indeed, required to be proficient in all these branches, but altogether 'they call for one hundred and sixty academic counts (a count representing ten weeks' work of five days a week), and forty-eight counts are accepted as sufficient to pass the candidate. A medical student's certificate of forty-eight counts issued by the Board of Regents of the University of the State of New York is accepted as the equivalent of evidence of a high school course.

With the exceptions necessary to do away with onerous *ex post facto* conditions, the professional requirements include "a diploma conferring the degree of doctor of medicine from some legally incorporated medical college (which in the opinion of said board was in good standing at the time of issuing said diploma) in the United States or a diploma or license conferring the full right to practise all the branches of medicine and surgery in some foreign country," together with evidence of four years' study prior to the acquisition of the diploma or license. Besides this, the candidate must pass an examination, conducted in English, in writing, covering all the branches of medicine and surgery. In this examination he must secure 675 points out of a possible 900. It will be seen from this that the State of New Jersey is doing its full part in advancing the standard.

THE MODERN TEACHING OF GYNÆCOLOGY.

To the generation which recalls the delightful lectures of the "Autocrat of the Breakfast Table" and the brilliant word pictures of Thomas, or to the older generation (alas! how few are left) which knew Barker and Van Buren in their prime, the present methods of medical teaching seem prosaic and unstimulating. The old order has indeed changed. But it is "the eternal change which waits on progress." With the relegation of didactic instruction to the second place, the dramatic element has disappeared from the lecture room. The most eloquent of our old teachers would doubtless find an unsympathetic hearer in the modern medical student, whose critical mind would promptly discover a flaw in the weak statement, concealed by the flowery language and supported by the reputation and personal magnetism of the orator.

The irreverent youngsters of to-day will never know the keen pleasure or the unquestioning belief with which we listened to the words which flowed from the lips of our teachers, and looked into kindly eyes, from which the light has long faded, nor will they carry with them that inspiration which has outlasted the narrow views and erroneous theories which then seemed impregnable. This is a practical age, and we have banished sentiment from the lecture room. With so much to learn, there is no time for rhetoric. What the modern student expects are facts, presented clearly, concisely, and in a form to be grasped and remembered.

In no department is this need more felt than in gynæcology, a branch of medicine (or surgery?) which has seen so many changes in theory and practice, and is even now in an unsettled state. It has always been a "popular" specialty, particularly of late years, when it has become almost synonymous with abdominal surgery. And yet it has always been obliged to fight for recognition in the medical curriculum, and is even now viewed askance, especially by the incumbents of the chairs of general surgery. Doubtless the imperfect methods of teaching it have had much to do with the opinion often expressed that gynæcology is really a useless appendage, to be eliminated from the body of surgery. It is a fact that until within a few years the average medical graduate had no practical knowledge of

diseases of women, but carried away from his alma mater only hazy ideas of certain diseases and operations gained from reading textbooks and witnessing operations. With the advent of personal, individual clinical teaching the entire picture has been changed. The student no longer accepts statements without question. He tries them. He has learned to think for himself. This, after all, is the object of all teaching. Failing to effect this, it means nothing that a man has "crammed" and passed a brilliant examination.

The didactic lecture has little if any value in the teaching of gynæcology. With so many excellent textbooks in his hands, it is simply waste of time to rehash their contents for the benefit of the student. Let this lecture rather serve as a means of impressing upon him by means of charts and pathological specimens the facts which have already been brought to his attention at the bedside. Let it also be an epitome of the lecturer's personal experience, an earnest effort to impress upon his young hearers the lesson of his own successes and failures. Personal magnetism, an imposing presence, the gift of tongues—all these have their place, but the medical student of to-day is deeply in earnest. Earnestness, simplicity, and directness tell with him. The crafty pleader may impose upon his jury, the preacher may hide his heterodoxy from his congregation, but if the medical lecturer does not *know* that whereof he speaks, he would do better to acknowledge it frankly. He will be found out. The recitation as at present conducted is simply another test of the student's knowledge. It should be simple and informal, conducted not with an eye to the coming examination, but for the purpose of fixing facts and correcting errors.

But it is in the dispensary and in the operating room that the most important advances in the teaching of gynæcology have been made. The daily contact of the student with patients, the constant, steady pressure exerted upon him to do his best work, to shirk no detail, however irksome—is not this training just what he needs? And in the operating room the opportunity to examine patients under anæsthesia, to become familiar with all the minutiae of modern asepsis, to watch the details of operations, each step being explained clearly and in a matter of fact way—what a change from the

"gallery play" of former days! But the student's interest in the case does not end with the operation. He follows its progress in the wards, sees the patient after recovery, and learns that most valuable lesson of all, that brilliant surgery is not everything. The wise conservatism which has succeeded to that *furor operandi* that did so much to bring gynæcology into disrepute is familiar to him. If his teacher has been faithful, he has learned that some cases can still be treated without the knife. The relation of pelvic disorders to the whole body is shown to him, and he learns to take a broader grasp of the subject than the specialist of a former generation. Instead of viewing the uterus through the speculum alone, he is taught to bring to bear in every case all the aid derived from pathology and bacteriology. In fact, the important truth is impressed upon him that the man with only one viewpoint is a narrow man, that no examination is thorough which does not cover the whole ground, that no method of treatment should be adopted unless the indications are clearly defined, and that there must be a reason for every surgical operation, otherwise it is simply empirical.

The attitude of the medical student toward hospital patients has materially changed. Sympathy, gentleness, consideration for the feelings of suffering women are more noticeable than formerly. The cultivation of humanity is no unimportant advance in the moulding of the future doctor.

Those who have been engaged in working out the problem of medical education are very hopeful about the physician of the future. He will be a good doctor. He must also be a high-toned gentleman. Some powerful influence is needed to offset the spirit of commercialism which is growing up among us. A heavy burden of responsibility is laid upon the modern medical teacher. It is not enough to teach young men how to become money-makers. We must impress upon them the same fundamental views of faith and honor which we learned from our old-fashioned professors.

HENRY C. COE.

THE PSEUDOPARALYSES OF CONGENITAL SYPHILIS.

In cases in which the bony changes described by Parros are lacking, in which the central nervous system and the peripheral never appear intact, and

in which the ætiology of the paralyses is not ascertainable, Scherer (*Dermatologische Zeitschrift*, June, 1902; *Berliner klinische Wochenschrift*, June 8, 1903) thinks that they may be due either to the syphilitic toxine or to other toxins in the blood. In two cases he has found streptococci in various parts of the body.

AN ENGLISH JOURNAL OF MILITARY MEDICINE.

We have received the first number of a new monthly, dated July, 1903, entitled the *Journal of the Royal Army Medical Corps*. It is edited by Major R. H. Firth, R. A. M. C. From the salutatory article, written by Sir W. Taylor, we learn that so long ago as in 1864 the establishment of such a journal was resolved upon at a meeting of army surgeons held at Netley, and "its scope, character, and form were decided upon even to the most minute detail." "But an Old World official opposition," the writer adds, "together with 'rules and customs of the service,' effectually killed the proposal at its birth, and, though many efforts have been made since then to revive it, they have all been without success." We heartily congratulate our British brethren on their having finally overcome the difficulties that stood in their way for so many years, and on having established a journal which, to judge from its initial number, is destined to constitute an important vehicle for the literature of military medicine.

OLIVE OIL IN THE TREATMENT OF ULCER OF THE STOMACH.

The internal use of olive oil as a remedy is evidently not readily to be blotted out. Walko (*Zentralblatt für innere Medizin*, 1902, No. 45; *Berliner klinische Wochenschrift*, July 13, 1903) finds that, by reason of its being absolutely unirritating, of its high nutritive value, of its slight susceptibility to decomposition in the stomach, of its decided restraining influence on the hydrochloric acid reaction of the gastric juice, of its efficacy in overcoming constipation, and of its relaxing and protective action, it is of the greatest service, especially as an anodyne, in ulcer of the stomach. He thinks it gives the best results when associated with bismuth subnitrate.

CONGENITAL ELEPHANTIASIS OF THE VULVA.

We are accustomed to regard elephantiasis as a disease of adult life. It is interesting therefore to note a case of its very early development reported by Heil at the recent meeting of the German Society of Gynæcology (*Zentralblatt für Gynäkologie*,

July 18th). The patient, twenty-seven years old, is recorded as a virgin. The tumor arose from the left labium majus and extended to the buttock. The mother had noticed that its formation had begun within the first three months of the patient's life. It grew slowly up to the time of the first menstruation; then there was a more rapid growth followed by a cessation of increase. It was removed, and healing followed suppuration of a hæmatoma that formed at the site of the operation.

AN AUSCULTATORY SIGN OF INTRACRANIAL ANEURYSM.

Intracranial murmurs figure to some extent in our semeiology, but perhaps due importance has not yet been assigned to them. Fuchs (*Wiener klinische Wochenschrift*, 1903, No. 17; *Berliner klinische Wochenschrift*, May 18th) relates the history of a case in which a systolic murmur was heard over the mastoid portion of the left temporal bone. It could be suppressed by pressure on the left carotid and subclavian arteries. It was interpreted as due to an intracranial aneurysm of a branch of the carotid.

TOXIC EFFECTS FROM UVA URSI.

Toxic phenomena due to uva ursi must be exceedingly rare, but Meyers (*Nederlandsch Tijdschrift voor Geneeskunde*, 1902, i; *Zentralblatt für innere Medizin*, July 4, 1903) reports what he considers to be idiosyncratic effects of the drug. A patient with catarrh of the bladder took a decoction of about forty-five grains of the leaves, whereupon he was seized with severe dyspnœa, vomiting, vertigo, and cyanosis. On the following day his pulse was irregular, his respiration was frequent, and he had an eruption resembling urticaria, but without itching.

Mosquito War in Bristol, N. J.—The Bristol board of health has received full instructions from Francis B. Lee, the health commissioner of Trenton, as to the manner of procedure, and a campaign of extermination has been commenced. In response to inquiries from Jesse O. Thomas, secretary of the Bristol board, Commissioner Lee made the following suggestions: 1. Fill all mosquito breeding places. 2. Drain if you can't fill. 3. Use oil if you can't drain or fill. 4. Keep gutters clean. 5. Recommend householders to keep pails, water buckets, etc., free from stagnation. 6. Recommend the assistance of the citizens in exterminating the insect. The Bristol board has started its experiments by the use of crude petroleum upon the marshes and other breeding places of the insects in Bristol. It is intended to prosecute the work vigorously. Householders have been requested to cooperate in abolishing breeding places on private premises.

News Items.

Society Meetings for the Coming Week:

MONDAY, *August 17th.*—New York Academy of Medicine (Section in Ophthalmology); Chicago Medical Society.

TUESDAY, *August 18th.*—New York Academy of Medicine (Section in General Medicine); Buffalo Academy of Medicine (Section in Pathology); Ogdensburgh, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Medical Society of the County of Kings, N. Y.; Baltimore Academy of Medicine.

WEDNESDAY, *August 19th.*—Woman's Medical Association (New York Academy of Medicine); New Jersey Academy of Medicine (Newark); New York Society of Dermatology and Genitourinary Surgery (private); New York Academy of Medicine (Section in Genitourinary Diseases).

THURSDAY, *August 20th.*—New Bedford, Mass., Society for Medical Improvement (private); Atlanta Society of Medicine.

FRIDAY, *August 21st.*—New York Academy of Medicine (Section in Orthopaedic Surgery); Clinical Society of the New York Post-Graduate Medical School and Hospital; Manhattan Medical and Surgical Society (private).

SATURDAY, *August 22d.* Harvard Medical Society, New York (private).

NEW YORK, CITY AND STATE

New York City's Milk.—One and a half million quarts of milk are distributed in New York City every morning.

Albany Hospital for Contagious Diseases.—Ground was broken for this institution on the 3d instant, near the Albany Hospital; the work is to be pushed as rapidly as possible.

St. Peter's Hospital, Albany.—The exterior work on this building is nearly completed and the interior construction has begun. It is hoped to have the institution finished by the end of September.

Buffalo Marine Hospital.—Of the \$125,000 appropriated for the new marine hospital at Buffalo, \$22,000 is to be expended for the site, \$100,000 for the building and some \$3,000 for unforeseen expenses and for beautifying the grounds.

The Brooklyn Nursery and Infants' Hospital finds itself with nearly one hundred babies on hand, several unpaid bills, and an empty treasury. Contributions will be thankfully received by the treasurer, Mrs. C. J. Obermage, 502 Eighth Avenue, Brooklyn.

Cholera Infantum in Buffalo.—Over 100 deaths from cholera infantum have occurred among infants during the past month in Buffalo. The health commissioner attributes the mortality simply to the carelessness of parents in feeding the children.

A Daily Medical Paper.—It is stated that seven well-known physicians, headed by Dr. Albert W. Ferris, have formed a company for the publication of a daily medical paper of six pages, to record medical happenings and abstract the current medical literature.

The Knights of St. John and Malta Hospital and Relief Association have been incorporated, voluntarily to assist and afford relief to members and others in case of accident, sickness, and dis-

treas. The field of labor will be Brooklyn and wherever on the American continent branches may hereafter be established.

Bellevue to Get Land.—It is announced by the trustees of Bellevue Hospital that the obstacles that have hitherto existed to the acquisition of the necessary land for enlarging the buildings, have been removed. It is expected to begin work on the improvements about October 1st. The total cost of acquiring land and improving it will exceed, in all probability, \$2,000,000.

The Treatment of Tetanogenic Wounds.—The Harlem Hospital and the J. Hood Wright Hospital, of Harlem, assert that they were the first to practise successfully the injection of tetanus antitoxine direct into the spinal cord. One case in each institution was so treated and, it is said, all symptoms of genuine tetanus were removed. Sixty-five cases of apparently poisoned wounds were aseptized at the Harlem Hospital, and fifty-six at the J. Hood Wright.

New Hospital on the Upper East Side.—The Sydenham Society has founded a hospital and dispensary at 347 East 116th Street, at which the poor may receive free treatment. The dispensary is situated on the lower floors and on the upper floors there are twenty beds and an operating room. Salo Cohn, R. Cronson, J. Goldstein, H. Jarecky, R. Kunitzer, J. Levin, L. Lichtschein, S. Mark, and L. Marcus have volunteered their services to the institution.

City Free Swimming Baths May be Abolished.—President Lederle of the health department does not look with favor on the free swimming baths, and thinks they might be advantageously replaced by plunge and shower baths with hot and cold water. Considerable sewage is poured into the rivers not far from the present baths, and they offer, furthermore, an easy means of spreading contagious diseases, especially those of the eye and skin.

City to Build Another Home for Nurses.—Plans were filed yesterday at the Bureau of Buildings, Manhattan, for a two and a half story brick and terra cotta home for nurses, to be erected on Blackwell's Island, opposite East Fifty-first Street, on a plot 78 by 35 feet. This is the second nurses' home for which plans have been filed under the present administration. The city is the owner. The cost is estimated to be \$35,000.

Insane Hospital for Washington County.—On the return from an inspection of German insane asylums by Dr. Peterson, President of the State commission in lunacy, the commission will purchase a site in Washington County for the erection of a hospital for the insane. At the disposal of the commission is a fund of \$50,000 appropriated by the last legislature, although the final cost will exceed \$1,000,000. Overcrowding at the Kings County institution will be relieved by the new building, which will accommodate the counties of Albany, Rensselaer, Saratoga, Washington, and Warren.

The Successful Candidates in the New York State Licensing Examination, are as follows:

MAY EXAMINATION.

Giuseppe Albano, 498 Chester Ave., Newark, N. J.; Florence E. Allen, 297 Alexander St., Rochester, N. Y.; J. Howard Allwein, 318 W. 46th St., New York; John C. Anderson, 46 E. 82d St., New York; William C. Armstrong, Windsor, N. Y.; David H. Atwater, 1109 E. Genesee St., Syracuse, N. Y.; John N. Bassin, 455 Henry St., Brooklyn, N. Y.; Clarence Beals, Salamanca, N. Y.; John L. Bishop, Whitesville, N. Y.; Fred. E. Bolt, Youngs, Delaware Co., N. Y.; Charles L. Bond, East Steamburg, N. Y.; Clarence H. Bonnell, 87 Madison Ave., New York; Donald Boyd, 152 Washington Ave., Albany, N. Y.; William S. Bryant, 33 E. 33d St., New York; Elliott Bush, Main St., Horseheads, N. Y.; John E. Canfield, Johnstown, N. Y.; Henry M. Chandler, South Orange, N. J.; Sylvester C. Clemons, 87 West St., Gloversville, N. Y.; Russell Clute, 70 Jay St., Albany, N. Y.; Henry J. C. Corrigan, St. Francis Hospital, 5th St. and Ave. B, New York; M. E. Costello, Willard, N. Y.; Patrick V. Costello, 214 Franklin St., New Haven, Conn.; Andrew J. Dolan, 1995 Lexington Ave., New York; care Dr. Upton; Archibald J. Douglass, Albany Hospital, Albany, N. Y.; Francis Benedict Doyle, 96 Boerum Pl., Brooklyn, N. Y.; Francis J. Doyle, 880 Madison St., Brooklyn, N. Y.; Clarence C. Duchscherer, 282 East St., Buffalo, N. Y.; Gaston H. Edwards, Kings Co. Hospital, Brooklyn, N. Y.; J. E. Eisenhart, 1195 Main St., Buffalo, N. Y.; George L. Fischer, 828 Jefferson St., Buffalo, N. Y.; David E. Fraser, Lyndonville, N. Y.; May Gibson, 10 Niagara Sq., Buffalo, N. Y.; Edward E. Gillick, 1508 Pine Ave., Niagara Falls, N. Y.; Marie M. Goldman, 11 W. 117th St., New York; Herman F. Graf, 282 Mulberry St., Buffalo, N. Y.; Horace Grodby, 192 Warren St., Brooklyn, N. Y.; Dupree M. Hall, Westfield, N. Y.; Howard C. Hanscom, 142 W. 139th St., New York; James M. Happell, 609 Irving St., Olean, N. Y.; Albert J. Harris, 736-748 Jefferson St., German Hospital, Buffalo, N. Y.; Byron Haskin, Plessis, N. Y.; Henry Hirsch, 60 70th St., New York; Conrad R. Hoffman, Selkirk, N. Y.; R. Burdett Hoyt, Deposit, N. Y.; Harry Flisk Hall, Proctorsville, Vt.; Frank Jones, Himrod, N. Y.; Frank Keator, Accord, N. Y.; Augustine T. Kingston, Fordham Hospital, Fordham, New York; Leon M. Kysor, 9 Center St., Hornellsville, N. Y.; Orville N. Lewis, Ashland, N. Y.; Geo. G. Lindsay, 1738 Mousey Ave., Scranton, Pa.; Frederick J. MacDonald, St. Peter's Hospital, Albany, N. Y.; Miles A. McGrane, Watervliet, N. Y.; H. B. McIntyre, 203 Congress St., Brooklyn, N. Y.; J. A. McLeod, 26 Crescent Road, Toronto, Can.; D. S. McNaughton, 543 Bergen Ave., Jersey City, N. J.; Charles R. Marsh, 49 Chestnut St., Oneonta, N. Y.; Frank C. Maxon, Jr., Chatham, N. Y.; John C. Merchant, Nassau, N. Y.; Harry E. Mereness, Jr., 184 State St., Albany, N. Y.; John D. Moore, 151 Main St., Hartford, Conn.; J. Wesley Munro, 55 Wadsworth St., Buffalo, N. Y.; Louis I. Nisonoff, 228 Clinton St., New York; Thomas S. A. O'Connor, 787 4th Ave., Troy, N. Y.; Mark O'Meara, 123 No. Pearl St., Albany, N. Y.; A. M. Osness, 57 E. 115th St., New York; Albert W. Palmer, 287 South St., Lockport, N. Y.; Frederic J. Parmenter, 931 Prospect Ave., Buffalo, N. Y.; Louise Patterson, Amityville, N. Y.; Long Island Home; George R. Pirie, 571 Lexington Ave., New York; Francis A. Prendergast, 340 Clinton St., Brooklyn, N. Y.; Fred. C. Purcell, 5 Allen St., Buffalo, N. Y.; Edwin D. Putnam, Smith's Mills, N. Y.; Maurice L. Radin, 309 Winslow Ave., Buffalo, N. Y.; Hyatt Register, 61 Johnson Park, Buffalo, N. Y.; Edwin A. Reisenfeld, Buffalo German Hospital, Buffalo, N. Y.; Carroll J. Roberts, 56 Cottage St., Buffalo, N. Y.; N. L. Sapirstein, 29 W. 64th St., New York; Arthur J. Schneidenbach, 105 E. 75th St., New York; Sidney L. Scott, Bard Ave., West New Brighton, S. I., N. Y.; Virgil D. Selleck, 144 South St., Glen's Falls, N. Y.; Millard F. Shafer, Cobleskill, N. Y.; E. F. Sibley, Albany City Hospital, Albany, N. Y.; Frank T. Smith, 14th and Jacob Sts., Troy, N. Y.; George H. Smith, 61 Hancock St., Little Falls, N. Y.; Jonathan M. Stafford, 229 Colchester Ave., Burlington, Vt.; Edward H. Storck, 225 E. Utica St., Buffalo, N. Y.; Max Sturm, care Dr. Henry Brooks, Post-Graduate Medical School and Hospital, New York; Chris. Lester Suess, West Main St., Lancaster, Erie Co., N. Y.; George C. Swerdfeger, 964 Jefferson St., Buffalo, N. Y.; John H. Telfair, Lying-in Hospital, 18th St. and 2d Ave., New York; Frederick Tilney, 173 Amity St., Brooklyn, N. Y.; Gennaro Tipolito, 9 Spring St., New York; James N. Vander Veer, 28 Eagle St., Albany, N. Y.; Isaac E. Van Hoesen, Cossackie, Greene Co., N. Y.; Willard H. Veeder, Lyons, N. Y.; Michele Virgiani, 417 E. 12th St., New York; L. Edward Villamaire, 93 Watson St., Buffalo, N. Y.; Charles J. Walker, 602 Madison St., Brooklyn, N. Y.; William F. Walling, 176 Amity St., Brooklyn, N. Y.; George W. Warren, 2131 Broadway, New York; John L. Washburn, Sisters' Hospital, Buffalo, N. Y.; Harry M. Weed, Clyde, N. Y.; James H. Young, 138 W. Drinker St., Dunmore, Pa.

Honorary

Thomas D. Blair, 306 E. 2d St., Plainfield, N. J.; Merritt G. Chambers, 86 Warren St., Glens Falls, N. Y.; Clarence W. Datesman, 87 Grove St., Passaic, N. J.; Frank P. Ekins, 197 Summer St., Paterson, N. J.; Judson K. Folwell, Fort Washington, Long Island; James M. Gates, 391 Palisade Ave., West Hoboken, N. J.; Chalmers N. Kendrick, 17 Crescent Ave., Buffalo, N. Y.; Mary G. Potter, 39 West 60th St., New York; Bertha A. Rosenfeld, 162 West 99th St., New York; James E. Tytler, 113 W. 126th St., New York; James Walsh, 12 Union St., Cortland, N. Y.; Richard C. Warren, 217 Hazen St., Ithaca, N. Y.; Arthur C. Wilkes, Brewster, N. Y.

Eclectic.

Louis Cohen, 98 Allen St., New York; Casar Deutsch, 64 St. Marks Pl., New York; Helen F. Gibson, 1841 Madison Ave., New York; Antonia J. Hefter, 399 Pleasant Ave., New York; Frederick Hollander, 239 E. 14th St., New York; Joseph Kallman, 64 E. 90th St., New York; care M. R. Arvine, M. D.; Germano Milite, Villa Ave., Bedford Park, N. Y.; Adelaide Mills, 310 Lexington Ave., New York; Herman Benjamin Schwartz, 980 2d Ave., New York; John W. Avery, Box 37, Noroton, Conn.; Har-

Gennaro Sparano, 28 Mayfield St., Philadelphia, Pa.; Henrietta S. Tienken, 249 Ave. A, New York; Bertha A. Turkel, 92 E. 7th

JUNE EXAMINATION.

Samuel Abel, 71 E. 105th St., New York; I. Lathrop Allen, Jr., 358 Marion St., Brooklyn, N. Y.; Warren B. Andrews, Plantville, Conn.; Walter H. Andrus, Children's Seashore House [Atlantic City, N. J.], Chelsea, N. J.; Martin Asplitt, 1517 2d Ave., New York; Max H. Skou, 26 Charlton St., New York; old S. Backus, Andover, Conn.; Lewis Bama, 108 E. 87th St., New York; Mabel H. F. Bancroft, West Philadelphia Hospital for Women, 4035 Parrish St., Philadelphia, Pa.; Ernest E. Barker, Fort Edward, N. Y.; Gioachino Barabini, 47 Catherine St., New York; Howard A. Bayles, 262 Main St., New Rochelle, N. Y.; Allen Hoyt Beaman, Woodmere, L. I., N. Y.; Erich C. Beck, 47 E. 31st St., New York; Chas. E. Bedell, 2 W. 116th St., New York; Fred. McK. Bell, Alms House Hospital, Blackwell's Island, New York; Wm. S. Bellows, 27 Ackroyd Ave., Jamaica, N. Y.; Richard S. Benner, 214 Culver Road, Rochester, N. Y.; George H. Bentz, 309 E. 86th St., New York; Fred. S. Birchard, Birchardville, Susquehanna Co., Pa.; Leonard Blumgart, 266 S. Orange Ave., Newark, N. J.; Milton Bodenheimer, 336 E. 50th St., New York; Carl Boettiger, 390 Steinway Ave., Long Island City, N. Y.; John H. Borden, 52 W. 130th St., New York; Wm. E. Boyce, Park View Hotel, Van Cortlandt, N. Y.; J. Howard Branan, 133 2d St., Albany, N. Y.; Harry J. Brayton, St. Elizabeth's Hospital, Utica, N. Y.; Joachim Brennglass, 1478 1st Ave., New York; Abraham Brill, Manhattan State Hospital, Central Islip, L. I., N. Y.; Alfred J. Brown, Paul Smith's, N. Y.; Christopher W. Brown, 277 Division Ave., Brooklyn, N. Y.; Frank E. Brown, 591 Hancock St., Brooklyn, N. Y.; Alice G. Bugbee, 23 Hillside Ave., Waterbury, Conn.; Henry G. Bugbee, St. Luke's Hospital, New York; Jesse G. M. Bullowa, 46 E. 66th St., New York; Mortimer G. Burford, 83 S. 9th St., Brooklyn, N. Y.; Byron H. Caples, 527 W. 124th St., New York; Howard G. Case, 316 W. Onondaga St., Syracuse, N. Y.; Arthur F. Chace, South Swansea, Mass.; C. W. Chapin, City Hospital, New York; Wm. L. Clark, Box 302, Honesdale, Pa.; Gerhard H. Cocks, Post-Graduate Hospital, E. 20th St., New York; Frank Cohen, 116 E. 91st St., New York; Frank O. Cole, Lockport, N. Y.; Mary C. Connant, 201 Water St., Augusta, Me.; Albert H. Cook, 552 Spadina Ave., Toronto, Can.; Clarence C. Coryell, 108 Parker St., Ithaca, N. Y.; John F. Crawford, Surf Ave. and 21st St., Coney Island, Brooklyn, N. Y.; Archie I. Cullen, 1428 1st Ave., Watervliet, N. Y.; Henry M. Cullinan, 3744 Powelton Ave., Philadelphia, Pa.; Carlos E. Cummings, 560 Auburn Ave., Buffalo, N. Y.; C. E. Curtiss, Mexico, N. Y.; Frank H. David, 33 W. 126th St., New York; Walter W. Davis, 304 Stinard Ave., Syracuse, N. Y.; Ruth Demarest, State Hospital, Rochester, N. Y.; Oreste De Stefan, 739 S. 7th St., Philadelphia, Pa.; Paul Dolan, St. Vincent's Hospital, 11th St. and 7th Ave., New York; John F. Dooling, Passaic General Hospital, Passaic, N. J.; Sumner E. Douglass, Chateaugay, N. Y.; Gennaro Doyno, 303 E. 23d St., New York; Ed. H. Drozeski, 411 Myrtle St., Erie, Pa.; Francis E. Du Bois, Claverack, N. Y.; Roger Durham, M. E. Hospital, Brooklyn, N. Y.; Francis C. Edmonds, Glen Cove, L. I., N. Y.; Chas. E. Elkins, Mexico, Oswego Co., N. Y.; Sigmund Epstein, 251 E. 52d St., New York; Frank Erdwurm, 108 Orient Ave., Jersey City, N. J.; James P. Erskine, 7 W. 15th St., New York Hospital, New York; Bryant Fassett, 1070 Madison Ave., New York; J. Wesley Faust, 129 Lexington Ave., New York; Lew H. Finch, Broadalbin, Fulton Co., N. Y.; Harry S. Fincke, 214 Grand Ave., Astoria, Long Island City, N. Y.; C. A. Finley, Post-Graduate Hospital, New York; Frederick A. Finn, 157 Danforth Ave., Jersey City, N. J.; H. S. Fish, Packer Hospital, Sayre, Pa.; Archie M. Fisher, Spencer, N. Y.; Eli Norman Foster, 243 Zara St. (Knoxville), Pittsburgh, Pa.; Pearl M. Foster, Whitesboro, N. Y.; Louis Franklin, 181 Bay View Ave., Jersey City, N. J.; Ernest V. Frederick, Campbellford, Ontario, Canada; Victor Frederickson, Bellevue Hospital, New York; G. A. Fried, 47 W. 87th St., New York; James L. Gallagher, 345 Eagle St., East Buffalo, N. Y.; Frank E. Gessner, 83 Burnet St., Newark, N. J.; Joseph H. Gettinger, 311 E. Broadway, New York; John E. Gleason, Oxford, N. Y.; E. W. Goddard, 4427 Ossage Ave., Philadelphia, Pa.; Fred. Goldfrank, 12 E. 81st St., New York; Joseph E. V. Golding, 4304 Hart St., Brooklyn, N. Y.; Clinton E. Goodwin, 721 S. Crouse Ave., Syracuse, N. Y.; C. Sumner Gould, Walton, N. Y.; George C. Gould, 134 S. 6th Ave., Mt. Vernon, N. Y.; Herlwyn R. Green, 511 S. 42d St., Philadelphia, Pa.; Joseph Grief, 232 Rivington St., New York; Herman Gross, 135 Main St., Astoria, L. I.; Wm. P. Hall, Earlville, N. Y.; Samuel W. Hamilton, Randall's Island, New York; W. A. Hanor, Central Square, N. Y.; Glenn H. Hardy, Canisteo, N. Y.; George P. Harran, City Hospital, Newark, N. J.; Lasher Hart, 113 Elliot St., Syracuse, N. Y.; C. Morris Hatheway, 191 Prospect St., Willimantic, Conn.; Frank R. Haviland, Fulton, N. Y.; Royal S. Haynes, Presbyterian Hospital, 41 E. 70th St., New York; Max Hazay, 314 E. 3d St., New York; John A. Heitlinger, Stony Point, N. Y.; Walter H. Henning, 700 E. 185th St., New York; Louis Herlitka, 245 E. 13th St., New York; Rudolph F. Herriman, Bushwick Hospital, Howard and Monroe Sts., Brooklyn, N. Y.; Julius J. Hertz, 302 E. 90th St., New York; Spencer L. Higgins, 403 Chestnut St., Roselle Park, N. J.; Anne A. Hintze, Women's Hospital, corner 22d and W. College Ave., Philadelphia, Pa.; Walter G. Hirsman, 408 Clinton St., Brooklyn, N. Y.; Horace P. Hoerle, Ridgewood, N. J.; Walter H. Holdridge, St. Francis Hospital, 5th St., between Aves. B and C, New York; Israel Horowitz, 243 E. 112th St., New York; Nathan M. Horowitz, 141 Monroe St., New York; Tasker Howard, 111 Mountain Ave., Montclair, N. J.; Rufus P. Hubbard, 116 W. 64th St., New York; Frederick B. Humphreys, 146 E. 37th St., New York; G. F. Inch, 297 Alexander St., Rochester, N. Y.; Peter Irving, 104 Madison Ave., New York; Maurice A. Jachnowitz, 403 E. 86th St., New York; Curtiss N. Jameson, 77 Jefferson Ave., Rochester, N. Y.; Frank A. Johnston, 197 W. Chestnut St., Kingston, N. Y.; Moses Kahn, 119 Grand St., Brooklyn, N. Y.; Louis Karmohl, 90 Pitt St., New York; Howard T. Karsner, 66 Mt. Hermon Way, Ocean Grove, N. J.; J. A. Kearney, Archbald, Pa.; John J. Keating, 432 W. 160th St., New York; James M. Kent, 36 Church St., Putnam, Conn.; John D. Kernan, Jr., 307 W. 102d St., New York; Leo Kessel, 112 W. 72d St., New York; Chas. D. Kimball, Hecla, Westmoreland

Co., Pa.; I. William Kingsbury, Presbyterian Hospital, New York; G. H. Kirby, Ward's Island, New York; John W. Kissane, Chateaugay, N. Y.; Charles W. Knaus, 92 First St., New York; Herbert W. Knight, 20 Genesee St., Binghamton, N. Y.; Joseph B. Knipe, 505 E. 83d St., New York; Wm. H. W. Knipe, 353 W. 24th St., New York; Louis M. Kommel, 87 Henry St., New York; H. A. Lakin, Frederick, Md.; John R. Le Comte, Lincoln Hospital, 141st St. and S. Boulevard, New York; Isaias Lehman, 1520 Washington Ave., New York; Horace L. Leiter, 137 W. 34th St., New York; Hugh H. Lenahan, 59½ Lansing St., Utica, N. Y.; Malcolm F. Lent, 1037 Howard St., Peekskill, N. Y.; Wm. Wolf Leseur, 127 E. 72d St., New York; Louis J. Levine, 202 E. 73d St., New York; Abraham A. Levy, Bedford San., Bedford Station, N. Y.; Jacob J. Levy, 717 E. Genesee St., Syracuse, N. Y.; Louis F. Licht, 88 Cedar St., Brooklyn, N. Y.; W. C. Lippincott, 1707 Arch St., Philadelphia, Pa.; Thomas C. Lippman, 181 Amsterdam Ave., New York; John H. Long, Long Island College Hospital, Brooklyn, N. Y.; Henry D. Long, 401 S. Maple Ave., Greensburg, Pa.; Robert F. Ludwig, Breezehurst Terrace, Whitestone, L. I.; Marshall F. Lummis, Bridgeton, N. J.; W. J. Maby, 36 Main St., Cohoes, N. Y.; Donald G. McCaskey, 304 W. King St., Lancaster, Pa.; Wm. H. McCastline, 318 W. 57th St., New York; Samuel McClary, 3d St. Timothy's Hospital, Roxborough, Philadelphia, Pa.; Wm. E. McCollom, St. John's Hospital, Atlantic and Albany Aves., Brooklyn, N. Y.; W. L. McFarland, Park Ave. Hotel, New York; John J. McGowan, 83 N. Fulton Ave., Mt. Vernon, N. Y.; Wm. H. McKinney, 4322 Manayunk Ave., Roxborough, Philadelphia, Pa.; Murdoch D. Macleod, 228 E. 105th St., New York; John S. Macnie, 48 W. 83d St., New York; Wm. H. Magill, Bellevue Hospital, New York; Arthur R. Mandel, 150 E. 40th St., New York; Ralph K. Mead, Du Bois, Clearfield Co., Pa.; Avon A. Mendel, 1089 Lexington Ave., New York; Herman Mendlowitz, 36 Grand St., Brooklyn, N. Y.; Hermance Mosenenthal, 181 W. 75th St., New York; Abraham Moskowitz, 83 Grand St., Brooklyn, N. Y.; James F. Nagle, Chicopee, Mass.; Thomas A. Neal, 131st St. and Amsterdam Ave., New York (J. H. Wright Hospital); Frederick L. Nelson, 212 E. 30th St., New York; N. W. Nelson, 1827 7th Ave., New York; Wm. H. Neville, 112 Oxford St., Syracuse, N. Y.; Leonard F. Nicoll, Newburgh, N. Y.; Frederick H. Nichols, 25 First St., Troy, N. Y.; Louis B. Nielson, St. Mary's Hospital, Philadelphia, Pa.; J. M. O'Neill, Massena, N. Y.; George G. Owens, Adams Centre, Jefferson Co., N. Y.; Joseph C. Palmer, 1000 E. Genesee St., Syracuse, N. Y.; Charles E. Panoff, 426 Stone Ave., Brooklyn, N. Y.; Alexander D. Parce, Springfield, Mo.; James McD. Parkinson, Manhattan State Hospital, E. 116th St., New York; Douglas C. Paterson, 105 W. 88th St., New York; George I. Pelgram, Benedicta, Maine; Max Perlman, 306 Delancey St., New York; Wm. Pfeiffer, 683 Greene Ave., Brooklyn, N. Y.; R. E. Pick, 234 E. 104th St., New York; H. Morton Pierson, Roselle, N. J.; Harry E. Plummer, 135 W. 104th St., New York; Ellen C. Potter, 2 William St., New London, Conn.; J. A. Pritchard, L. I. State Hospital, Flatbush, Brooklyn, N. Y.; G. A. Purpura, 218 Bruce St., Newark, N. J.; Camilla Quackenbush, Herkimer, N. Y.; James K. Quigley, Trumansburg, Tompkins Co., N. Y.; Selden I. Rainforth, Bayville, Long Island, N. Y.; S. J. Raphaelson, 92 East Broadway, New York; W. E. Recknagel, 164 W. 81st St., New York; Harvey L. Reese, 247 E. 21st St., New York; Ralph T. Richards, 963 Gringham St., Salt Lake City, Utah; Schuyler P. Richmond, 212 Park Ave., Syracuse, N. Y.; Charles F. Rissmeier, 2 Weiher Court, Bronx, New York; Hibbert R. Roberts, North Chili, N. Y.; Emanuel M. Robinson, 13 Orchard St., New York; Aaron Rokach, 52 East 122d St., New York; Benjamin Romansky, 276 Madison St., New York; Morris Rosenbaum, 540 E. 5th St., New York; Herman Rosenberg, 10 W. 118th St., New York; N. Bertrand Ross, St. Mary's Hospital, Rochester, N. Y.; Valentine Ruch, Jr., Englewood, N. J.; Laurance P. Runyon, 14 Union St., New Brunswick, N. J.; Franz C. Ruppert, 171 E. 78th St., New York; Sebastian Saladino, 387 Broome St., New York; Laurel R. Sandall, 419 Lexington Ave., New York; S. J. Scadron, 11 Rutgers St., New York; Otto Scheina, 1997 Lexington Ave., New York; George A. Schnepel, 182 W. 82d St., New York; Morris Schoenfeld, 627 6th St., New York; Joseph Schmitt, Workhouse Hospital, Blackwell's Island, New York; Herman Schwartz, 744 E. 5th St., New York; Samuel Schwartzman, 1289 Chesholm St., New York; Benjamin H. Searing, Bellevue Hospital, foot E. 26th St., New York, 2d div.; Keith Sears, Scarsburg, N. Y.; Jennie G. Seely, 437 Pennsylvania Ave., Waverly, N. Y.; Harlan Shoemaker, Municipal Hospital, Philadelphia, Pa.; John W. Short, 58 Liberty St., Camden, N. Y.; S. Short, 222 E. 107th St., New York; Burton T. Simpson, 151 Front Ave., Buffalo, N. Y.; Joseph J. Sinnott, St. Vincent's Hospital, W. 12th St., New York; Penn Gaskill Skillern, Jr., 3400 Walnut St., Philadelphia, Pa.; De Verne C. Smith, Vernon Centre, N. Y.; Everett G. Smith, 86 Maitland St., Toronto, Ont.; Frederick W. Smith, 721 Park Ave., Syracuse, N. Y.; Houghton C. Smith, Wilder, Vt.; Leroy James Smith, Bellevue Hospital, E. 26th St., New York; Louis Spanier, 290 Stanton St., New York; Elizabeth C. Spencer, Woman's Hospital, Philadelphia, Pa.; Edward W. Sprague, Garrett Hospital, Mt. Airy, Md.; Cynthia Steers, 19 Wendell Ave., Schenectady, N. Y.; Olga K. Stelubach, 1443 5th Ave., New York, care C. Bernard; Simon Steinbach, 1443 5th Ave., New York, care C. Bernard; George H. Stephens, 911 E. Genesee St., Syracuse, N. Y.; Adolph Stern, 1829 Crotona Ave., Borough Bronx, New York; Alexander M. Stewart, Elmside P. O., Quebec, Canada; Isaac Stiefel, 158 Stanton St., New York; James W. Stiles, Jr., 710 Ocean Ave., Jersey City, N. J.; George Wm. Stimson, Neil House Block, Columbus, Ohio; Wm. C. Stolorworth, 238 13th St., South Brooklyn, N. Y.; F. D. Stone, Mexico, Oswego Co., N. Y.; Louis J. Stork, 703½ 3d Ave., Brooklyn, N. Y.; Katherine L. Storm, 1612 Diamond St., Philadelphia, Pa.; Abraham Strachstein, Beth Israel Hospital, Jefferson and Cherry Sts., New York; Gustave Strack, 215 E. 45th St., New York; Isaac Streep, 21 E. 117th St., New York; Edgar de M. Stryker, Iaritan, N. J.; Harry R. Tarbox, Cooper Hospital, Camden, N. J.; Archibald W. Taves, 34 W. 85th St., New York; Richard A. Taylor, 215 W. 35th St., New York; Gustavo Testa, 267 N. 6th St., Brooklyn, N. Y.; Benjamin A. Thomas, Willow Grove Park, Montgomery Co., Pa.; Wellington A. Thompson, 265 Douglas St., Manchester, N. H.; Edward M. Tracy, 727 De Bevoise Ave., Astoria, L. I., N. Y.; Theodore Trumpp, 204 Nos-

trand Ave., Brooklyn, N. Y.; Isidore S. Tunick, 185 Allen St., New York; David C. Twichell, Saranac Lake, N. Y.; care Dr. E. L. Trudeau; Jos. S. Van Dyke, Methodist Hospital, Philadelphia, Pa.; Le Roy P. Van Winkle, N. Y. Lying-in Hospital, 2d Ave. and 18th St., New York; Harvey J. Vasey, Schenectady, N. Y.; H. W. Vickers, Canajoharie, N. Y.; Felix Villamil, 342 E. 30th St., New York; Emanuele Viola, 25 Roosevelt St., New York; Walter E. Vogt, 19 Belvidere St., Brooklyn, N. Y.; Otto Von Huffman, St. Luke's Hospital, New York; Edward W. Weber, 11 S. 5th Ave., Mt. Vernon, N. Y.; Arthur H. Weis, 17 State St., New York, care Mr. Anton Le Roy J. C. Wenger, 1940 N. 8th St., Reading, Pa.; Henry R. Weston, Felchville, Windsor Co., Vt.; Philip J. Wettervik, 224 E. 15th St., New York, care Dr. A. Vedlin; Joseph N. Wickham, Corona, N. Y.; Karl D. Wood, State Custodial Asylum, Rome, N. Y.; Arthur R. Woods, 90 Main St., Nashua, N. H.; Floyd R. Wright, 202 E. State St., Ithaca, N. Y.; Joseph Witham Young, 127 W. 74th St., New York; Warren H. Young, 154 Claremont Ave., Montclair, N. J.; Eugene J. Zeiner, 706 Leonard St., Brooklyn, N. Y.; Hans Zinsser, 180 W. 59th St., New York; Morris Zucker, 358 E. 8th St., New York.

Homeopathic.

Renel A. Benson, Flower Hospital, 63d St. and Ave. A. New York; Cornelia C. Brant, 91 Macon St., Brooklyn, N. Y.; Edgar B. Cook, 100 Atkinson St., Rochester, N. Y.; Robert C. Fox, 192 Amity St., Flushing, N. Y.; Edwin P. Hall, Homeopathic Hospital, Albany, N. Y.; O. Du Bois Ingalls, Cumberland Hospital, Brooklyn, N. Y.; M. W. Johns, Norwich, N. Y.; F. Welles Kellogg, Box 976, Helena, Mont.; Walter E. Nichols, Henderson, Ky.; Mabelle J. Perry, 17 W. 101st St., New York; Daisy I. W. Rodenburg, 481 W. 159th St., New York; John E. Snodgrass, 224 Alexander St., Rochester, N. Y.; Thomas L. Thomson, 194 Main St., Torrington, Conn.; R. Percy Vivian, Barrie, Ontario, Can.; Lucy O. Wight, 438 W. 116th St., New York; George W. Whitney, 140 Fair St., Kingston, N. Y.

Eclectic.

Raffaele D'Angelo, 366 Broome St., New York; Sherman T. Davis, 13 E. 22d St., Chicago, Ill.; Jacob Haas, 1817 Madison Ave., New York, care M. Kraller; Solomon Iancovici, 5 1st Ave., New York; Luigi Zito, 181 Mulberry St., New York.

PHILADELPHIA AND PENNSYLVANIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

DISEASES.	Week end'g Aug. 1.		Week end'g Aug. 8.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	29	3	36	5
Diphtheria	47	3	44	10
Scarlet fever	54	4	64	0
Typhoid fever	109	14	108	14
Consumption	—	47	—	51
Cerebrospinal fever	0	0	—	1

This table shows an increase of eighteen in the total of cases of contagious diseases as compared with the preceding week.

Failure to Report Smallpox.—Two physicians were recently fined five dollars and costs each for failing to report cases of smallpox coming under their observation.

The German Hospital.—Plans have been drawn for extensive interior alterations in the German Hospital, at Corinthian and Girard Avenues. Besides miscellaneous changes, these plans include a new passenger elevator, a new stairway, and a fire escape.

Unusual Operation at the Samaritan Hospital.—It is stated that an aneurysm of the aorta, extending three inches above the lower end of the sternum and three and a half inches wide, was successfully treated on the 5th instant by a current of five milliamperes at the Samaritan Hospital, Philadelphia. The current was increased to eighty milliamperes with the result, it is further alleged, of a perfect cure.

Report of Medico-Chirurgical Hospital.—Superintendent J. E. Ellis of the Medico-Chirurgical Hospital for the month of July shows that there were treated in the hospital ninety-five patients; accident rooms, 801; medical dispensary, 214; surgical, 1,516; gynecological, 100; orthopaedic, 154; genitourinary, 336; skin, 113;

nervous, 239; pædiatric, 29; eye, 1,235; ear, 896; nose and throat, 157. Total, 5,885.

Another Hospital Roof Garden.—As soon as the funds can be secured, the city will erect another roof garden for consumptives at the Philadelphia Hospital. The roof garden which was recently opened has proved to be such a success that the health authorities are desirous of securing another like it. Dr. Martin said: "The roof garden has been a great success, as well as a great boon to sufferers from consumption. One patient in ten days actually gained ten pounds. It has been worth its cost many times. Patients eat better, sleep better, and feel better out there in the open air than they ever did housed up. There is only one trouble with the roof garden, it is not large enough. We have not the funds at the present time to extend it, but as soon as they can be secured we shall endeavor to arrange a similar structure."

Serious Accident at the Ball Grounds.—On August 8th one of the greatest calamities that ever befell this city took place. The promenade walk around the Philadelphia Base Ball Grounds collapsed and hundreds of people were thrown to the ground. At this writing ten have died, and it is expected at that as many more will not recover. Over 200 were injured. The Samaritan and St. Luke's hospitals being the nearest to the accident received the greatest number of patients. Both of these hospitals were soon completely filled. Emergency calls were sent out for physicians, and doctors from all over the city responded. Not only the police patrol wagons were impressed, but trolley cars were converted into ambulances, and quick runs were made to the different hospitals. The railway companies gave the right of way to these cars, and everything was done to get the injured to the hospital as quickly as possible. All the cots in the Samaritan Hospital are filled, and the work done by the physicians and nurses of this hospital was of such a character as to cause especial recognition.

Change at the Municipal Hospital.—B. Franklin Royer has been appointed head of the Municipal Hospital, and is to be known as the chief resident physician of that institution. For many years the position of physician in charge of the Municipal Hospital has been held by William M. Welsh. He is known throughout the country as one of the experts on smallpox. This appointment was made by Edward Martin, director of the Bureau of Health. In speaking of it, Dr. Martin said:

"In considering the needs of the Municipal Hospital and its best interests in management and in relation to the public, I became convinced that it was necessary for a skilled physician not only to be in charge, but to make his home at the institution, so that at all hours he might be in immediate touch with every detail of his work. It was impossible for Dr. Welch, the present chief resident physician, to assume the position. Dr. Royer will therefore take the place. He will visit the institution at once and make himself thoroughly familiar with it, and will take formal

charge on September 1st. I have no criticism to make of Dr. Welch. He is an able physician, and had done valuable work. Dr. Welch will act hereafter in an advisory capacity." Dr. Royer is professor of anatomy in the Jefferson Medical College and one of the physicians connected with the Jefferson Hospital.

CHICAGO AND ILLINOIS.

Dr. Ernest Riebel was appointed on the 3d instant an associate member of the surgical staff of the Cook County Hospital.

Typhoid Fever in Chicago.—An epidemic of typhoid fever threatens Chicago, according to health department reports. It is attributed to sewage in the lake, and people are warned to boil their drinking water.

Union Hospital Benefit.—As the result of a lawn festival given by the patronesses of the Chicago Union Hospital, 1525 North Halsted Street, \$400 was raised for the purpose of furnishing the new annex, which will shortly be able to accommodate forty additional patients. The hospital, which was organized in 1901 by members of the Belden Avenue Church, has grown much during the past two years, and the good work done through the institution has aroused the interest of prominent North Side women, who yesterday helped to make the lawn festival a success. The raffling off of quilts, pillows and rugs, the handiwork of the patronesses, brought a neat sum, and the proceeds derived from various attractions swelled the fund materially.

A Warning to Milk Dealers.—More than 600 samples of milk and cream were analyzed in the laboratory during the week. The resources of the laboratory are taxed to the limit, and it is impossible for the chemist to go to the railroads for farmers' samples. Dealers should provide the simple and inexpensive apparatus for testing themselves the milk and cream as it is furnished by the farmer. The publication of the names and addresses of delinquent milk dealers by the daily press is doing more to check violations of the milk ordinance than all the suits and prosecutions the department could bring. The records of the laboratory are public, and the best way for a dealer to avoid having his name published is to sell good milk. Purchase milk from an honest farmer and then handle it properly.

The Free Distribution of Antitoxine.—Looking to the better safeguarding of the fund for the antitoxine treatment of diphtheria among those unable to pay for the remedy arrangements have been perfected during the week whereby the bureau of charities will investigate all cases in which the department furnishes antitoxine free on the claim of poverty. This will cause no delay in administration; the case will be treated first and investigated afterwards. It is believed that when it is known investigation will follow, greater care will be used in applications and so check abuses of the antitoxine fund. Already in one case for which \$15 worth of antitoxine was asked the applicant refused to take it on learning that the circumstances of the family would be looked into

Pith of Current Literature.

THE LANCET

July 25, 1903.

1. Some Improvements in the Method of Local Analgesia,
By ARTHUR E. J. BARKER.
2. The Causes, Prevalence, and Control of Pulmonary
Tuberculosis (Milroy Lecture),
By H. TIMBRELL BULSTROM.
3. The Susceptibility of Criminals to Atmospheric Changes,
By W. NORWOOD EAST.
4. Röntgen Rays in the Diagnosis of Lung Disease,
By DAVID LAWSON and R. HILL CROMBIE.
5. On Some Further Improvements in the Procedures
for Testing and Judging by the Naked Eye of the
Agglutinating and Bacteriolytic Effects Exerted by
the Sera of Patients Suffering from, or Preventively
Inoculated Against Typhoid Fever, Malta Fever,
and Tuberculous Affections, By A. E. WRIGHT.
6. Observations on Mastication, By HARRY CAMPBELL.
7. The Conservative Treatment of Lesions of the Uterine
Appendages, By GEORGE GRANVILLE BANTOCK.
8. Have the Locality and Surroundings an Influence Upon
the Recurrence of Malignant Disease After Opera-
tion? By D'ARCY POWER.
9. Hepatectomy for the Removal of Riedel's Lobe,
By CHARLES BARRETT LOCKWOOD.
10. Enzymes in Tumors,
By ARTHUR HARDEN and ALLAN MACFAYDEN.

1. **Local Analgesia.**—Barker states that he has abandoned cocaine for local analgesia in favor of B. eucaïne, as he considers it less dangerous and fully as satisfactory in its results. The greatest difficulty in employing local analgesia in extensive or prolonged operations has been inability to render the whole field analgesic without extensive and repeated injections, owing to the overlapping of the sensitive nerve supply, and to the fact that ordinarily the effect of the injection passes off in about 20 minutes. Latterly he had tried a method devised by Braun, of Leipsic, which consisted of combining adrenalin with the B. eucaïne. The solution employed was as follows: B. eucaïne, 0.2 gramme; pure sodium chloride, 0.8 gramme; boiling distilled water, 100 c. c. When this solution cooled 1 c. c. of Parke Davis & Co.'s adrenalin solution was added. The effect of the injection of this solution has been a complete blanching of the tissues at the end of 20 minutes and analgesia for two hours, and he has been able to perform satisfactorily such operations as herniotomy, castration, removal of varicose veins, colotomy, etc. The importance of having the solution sterile, pure, and free from flocculi is insisted upon. In no case was secondary hæmorrhage observed following the dilatation of the blood vessels after the operations.

4. **Röntgen Rays in Lung Disease.**—Lawson considers the Röntgen rays to be of great value as an aid to clear up doubtful points of diagnosis in lung disease, and calls attention to the following points: (a) Movement and position of the diaphragm which is always modified on the affected side, even when there is only a slight tuberculous deposit at the apex of the lung; (b) the failure of

an infiltrated area to light up on full inspiration; (c) the determination of the cause of extrabronchial pressure, e. g., enlarged glands or an aneurysm. A plate showing various diseased conditions of the lungs accompanies the article.

7. **Uterine Appendages.**—Bantock has reached the following conclusions in regard to the surgical treatment of lesions of the uterine appendages: 1. In the course of an ovariectomy it is true conservative surgery to remove the second ovary if palpably diseased. 2. In case of ectopic gestation or of salpingitis, either acute or chronic, it is advisable in the great majority of cases, if not in all, to do the double operation. 3. The practice of ignipuncture or partial resection of a suspected ovary is not founded on specific data. 4. It is not true conservative surgery to leave an ovary in cases of complete hysterectomy. 5. The operation of salpingostomy does not appear to have any claim to be regarded as worthy of acceptance.

8. **Recurrence of Malignant Tumors.**—Power, having followed the subsequent history of several cases of malignant disease after operation, found that where the patients returned to the same locality and mode of life the growth seemed more likely to recur than where a complete change of location and mode of living took place. This fact was noted even where the character of the growths was the same and the physical characteristics of the patients similar. It was also noted in some cases that recurrence took place after a considerable period of time when the patient's abode or circumstances changed. From this study he is inclined to believe that the recurrence of a malignant growth is not altogether dependent upon its character, but that locality and surroundings do have an influence, and that surgeons should bear this in mind, and change the patient's locality and mode of life if possible after an operation for malignant tumors.

9. **Riedel's Lobe.**—Lockwood considers that Riedel's lobe of the liver is a sufficiently common abnormality to be taken into consideration in the diagnosis of abdominal tumors. This lobe has been described as a tongue shaped healthy piece of liver attached by a broad base to the right lobe, but, according to the author, the base may have a broad, shallow groove on a distinct neck and hang from the liver like a huge polypus. The author thinks that where the lobe causes severe and persistent pain it should be removed, and considers the operation safe and feasible, as, in his experience, the liver is singularly tolerant of surgical interference and hæmorrhage is easily controlled and not to be dreaded.

BRITISH MEDICAL JOURNAL

July 25, 1903.

1. Remarks on Ectopic Gestation and the Conditions
Favorable for Its Advance to the Full Term,
By JOHN WARD COLEMAN.
2. A Case of Puerperal Eclampsia,
By ROBERT McDOWELL.
3. On Influenza Orchitis, By R. CLEMENT LUCAS.
4. The Causes of Acute Abdominal Pain in the Healthy,
Exclusive of Traumatism, By J. LYNN THOMAS.

5. Hernia of the Bladder as a Complication of Inguinal Hernia,
By G. B. FERGUSON.
6. Further Observations on Alcoholic and Arsenical Neuritis,
By ERNEST SEPTIMUS REYNOLDS.
7. A Case of Ankylostomiasis in Scotland,
By RALPH STOCKMAN.
8. Treatment of Atrophic Retinæ with Retinal Extract,
By ROBERT W. DOYNE.
9. Two Cases of Fracture of the Base of the Skull which Recovered After Venesection,
By STEPHEN PAGET.
10. The Buried Unabsorbable Ligature and Its Sequelæ,
By C. HAMILTON WHITEFORD.
11. The Treatment of Hydrocele by the Method of Seton,
By A. SCOTT SKIRVING.

1. **Ectopic Gestation.**—Cousins, after pointing out the difficulty in diagnosing tubal pregnancy early, states that sometimes the product of conception may be destroyed and the patient speedily recover without any recognition of her real condition. He believes, however, that the occurrence of fitful irregular hæmorrhage, obscure pelvic pain, swelling adjacent to the uterus, and changes in the breast justify an abdominal operation. The usual termination, rupture of the sac before the third or fourth month, may be so sudden and severe as to endanger the life of the mother and demand operation at once, but in many cases the maternal life is not in danger, though the foetus dies. After the death of the foetus the ectopic gestation may terminate in (a) complete absorption, if very early; (b) suppuration with more or less septic poisoning. (c) calcification or a mummified condition of the foetus; (d) the formation of a soaplike mass. The conditions favorable for advance to full term the author considers to be as follows: 1. Early and continuous mobility of the ovum. 2. Slow subperitoneal expansion of the gestation sac. 3. The absence of urgent symptoms indicating intraperitoneal or extraperitoneal rupture. 4. Early ascent of the foetus toward the abdominal wall. 5. The lateral position of the placenta in relation to the gestation sac and its upward expansion and elongation.

2. **Puerperal Eclampsia.**—McDowell reports the history of a case to illustrate the value of rapid delivery by means of the Bossi dilator where the patient at the seventh month of pregnancy had severe convulsions which were not controlled by cathartics, diaphoretics, sedatives, or venesection. After the uterus was emptied the convulsions stopped and recovery was uneventful.

3. **Orchitis.**—Lucas thinks that orchitis is not an infrequent complication in some epidemics of influenza, and cites three cases which came under his care in the hospital within two months, one an adult aged 31 years, and the others boys aged 8 and 3½, respectively. In all cases the inflammation was of severe type, involving the epididymis and scrotal tissues; there was no history of exposure to mumps or traumatism, and in two cases there was a distinct history of attacks of influenza a short time previous to the orchitis.

6. **Alcoholic and Arsenical Neuritis.**—Reynolds believes that a large proportion of so-called alcoholic paralysis occurring in beer drinkers is due to chronic arsenic poisoning, and he has based this opinion upon his investigation of the large number of cases which occurred in the North of England in 1900 and subsequently. While the epidemic of 1900 was due to contamination of the beer through glucose which accidentally contained arsenic, it has been also found that where the malt is prepared with certain kinds of coke the beer may contain heavy traces of arsenic. Having had recently six cases of the marked so-called "alcoholic" paralysis type in heavy beer drinkers, he thought it advisable to examine the beer and the analysis showed that the samples contained about $\frac{1}{25}$ grain of arsenic to the gallon. Previous to this time in two years this sort of cases had practically disappeared, and the analysis of the various beers consumed in the locality had never shown more than $\frac{1}{100}$ grain to the gallon. Therefore he concludes that these cases are due not to alcohol, but to arsenic.

7. **Ankylostomiasis.**—Stockman reports a case of this disease occurring in a miner in Scotland, who had two years previously been a soldier in India and contracted the disease there. He presented the characteristic anæmia which has been called "miners anæmia," "tropical anæmia," and Egyptian chlorosis. An examination of the blood showed a diminution of the red blood cells and a large increase of the eosinophile cells. On examining the fæces, numerous ova of the ankylostoma were found. The administration of thymol destroyed the parasites and iron restored the blood to normal condition. Owing to the widespread prevalence of this disease in central Europe, and because each person who harbors the worms and passes ova becomes a centre of infection for others, the author fears the disease may become distributed throughout the mines of England and other countries.

8. **Retinal Extract for Atrophic Retinæ.**—Doyle had a case of retinitis pigmentosa with peripheral contraction of the field of vision, and also great loss of central vision. This patient took a sea voyage which produced violent retching and vomiting, and after a night's rest, there was very great improvement in the vision which lasted for several weeks, print being clear and distinct instead of faded and dim. The explanation seemed to be an increase of pabulum brought to the starved retina through the congestion produced by the vomiting. Realizing that in retinitis pigmentosa there was a diminished supply of blood to the retina on account of the contracted vessels, he conceived the idea of supplying the retinal constituents by feeding patients with the raw retina of sheep and oxen. Great improvement has been noted in cases of retinitis pigmentosa, retinal degeneration in high myopia, in chorioiditis, and tobacco amblyopia. The extract prepared under the name of "Optocine" has, according to the author, all the value of the fresh

retinæ, and as the latter are very difficult to obtain, even in London, it is recommended. In cases of pure nerve atrophy improvement cannot be expected from the treatment.

9. Venesection in Fracture at the Base.—Paget believes that two cases which presented all the typical symptoms of fracture at the base of the skull would have died if venesection had not been performed. In each case twenty ounces of blood were removed at first and a few hours later 12 ounces more.

10. Unabsorbable Ligature.—Whileford protests against the use of buried unabsorbable ligatures on the following grounds: 1. Ligatures only hold parts in apposition while they are growing together, and if the tissues do not unite, the ligature is of no value, and when they have united the usefulness of the ligature is ended. 2nd. No matter how aseptic the ligature is, it will cut through the tissues, travel about from muscular action, and may later become infected by bacteria and produce trouble. He thinks that catgut prepared by the formalin or xylol process produces immediate results equal to silk, and, being absorbed within a few weeks, causes no annoying sequelæ.

11. Hydrocele.—Skirving advocates the treatment of hydrocele by means of the seton in cases where for any reason a radical operation is not advisable, or the patient's consent thereto obtained. The operation consists in passing a trocar and cannula from behind forward completely through the affected side. When the trocar is withdrawn a seton of silkworm gut, horsehair, or silk, may be passed through the cannula which is then partially withdrawn in order to empty the sac. When this has been accomplished the cannula is entirely withdrawn and the ends of the seton fastened in front of the scrotum. The author states that by shaving the pubis in adults, and sterilizing the skin of the scrotum as far as possible, and employing a wet boracic acid dressing, he has been able to avoid any septic infection and the results in five cases, ranging from 47 years to 1 year of age, were very satisfactory.

THE GLASGOW MEDICAL JOURNAL.

May, 1903.

1. The Consumptive Poor—What To Do With Them: A Plea for Notification. By WILLIAM FINDLAY.
2. Notes of a Case of Inoperable Carcinoma of the Pregnant Uterus in Which the Porro-Cæsarean Operation Was Successfully Performed. By J. M. MUNRO KERR.
3. Some Questions Bearing on Infant Feeding Dealt With in the Light of Recent Observations. By CARSTAIRS DOUGLAS.
4. Case of Puerperal Eclampsia Complicated by Hemiplegia. By S. L. CRAIGIE MONDY.

1. Notification of Consumption.—Findlay believes that the numerous and miscellaneous class of poor consumptives in a large city cannot be trusted to stay of their own free will for a lengthened period in a hospital or sanatorium. The early or slight cases, therefore, should be compelled to remain in

sanatoria for a reasonable time to enable them to be cured, or sufficiently restored to allow of their return to their families as bread winners again. They would be thus well disciplined in the duties pertaining to the leading of a physiological life, so as to keep well and avoid infecting others of the household. They would be, moreover, under the supervision of the sanitary authorities. The advanced and, of course, most infectious cases, especially those from the crowded districts, would require to be detained till they died, to prevent the spreading of infection among their families. This would, no doubt, be felt to be a great hardship, but it is the only logical outcome, if we are to keep infection from the healthy, and not throw away public money and energy for a comparatively barren result. We do not feel it the same hardship that we are compelled to die in a hospital from enteric fever, after lingering, it may be, three or four months; and we should require to school ourselves to view death from phthisis in the same light. That such a consummation is not beyond our reach is proved by the mental attitude of the public to-day regarding other infectious diseases, whose notification was formerly regarded with as great dislike and as being as impracticable as the notification of consumption is viewed to-day.

3. Infant Feeding.—Douglas asserts that it does not always follow that because a mother can nurse and has plenty of milk a child will thrive, for the milk may be wanting in one of its three great solid constituents—proteid, fat, or sugar. He deplores the growing tendency, where an artificial food is required, to give undiluted cow's milk, the very striking difference in the proteid percentage being the cause of much intestinal irritation. In connection with the subject of fats in the infant's dietary he emphasizes the importance of their action in aiding the absorption from the bowel of the salts of magnesium and calcium. The relation of these elements to the rapidly growing skeleton of a young child is such that the absence of fat, under certain circumstances, might possibly be a cause of rickets. Another advantage of fat is in its power of correcting constipation. Considering that, in Koch's opinion, infection by the milk, butter, or flesh of tuberculous cattle is of the rarest occurrence, and that there is just about the same chance of a child getting tuberculous disease in this way as there is of his being infected as the result of hereditary transmission alone, the author asserts that this implies the deduction that we need no longer trouble about the pasteurization or sterilization of milk intended for infant feeding. He believes, however, that as yet we have no evidence of sufficient weight to permit us to be neglectful of precautionary measures against tuberculous infection by milk. A good working rule is that all milk used for infants under one year of age should be pasteurized for fully forty minutes at 70° C. No milk containing any preserving agent should be used for a young child. If milk cannot be taken, whatever food is chosen should be adapted to the physiological capabilities of the infant. When a child vomits early after a feeding and brings up curds, and suffers pain early after a meal, it is useful to administer five minims of the liquor pepsinæ before each bottle. In intesti-

nal derangement an antifermentative, such as sodium salicylate ($\frac{1}{2}$ to 1 grain thrice daily) will be of use.

The author comments on the investigations of Parrot and Baginsky on "athrepsia" and on their use of lecithin as a tonic for the nervous system. The results obtained were very gratifying.

THE PRACTITIONER.

June, 1903.

1. A Few Lessons from Fifty Cases of Operation for Carcinoma of the Tongue,
By W. H. A. JACOBSON (*Concluded*).
2. Total Extirpation of the Prostate for Radical Cure of Enlargement of that Organ,
By P. J. FREYER.
3. Vascular and Toxic Acroparæsthesia, or Sensory Disturbances of the Extremities Occurring Independently of Primary Disorder of the Nervous System,
By H. BATTY SHAW.
4. Tuberculosis and the Medical Profession,
By ALFRED HILLIER.
5. Ateleiosis: a Form of Dwarfism,
By HASTINGS GILFORD.
6. Some Points of Interest in the Clinical Manifestations of Cerebral Abscess,
By JAMES BURNET.
7. The Surgical Treatment of Nephritis. A Review of Recent Progress in Genitourinary Surgery,
By J. W. THOMSON WALKER.
8. Public Health:—The Death-Rates of Working-Class Communities,
By LOUIS PARKES.

1. **Operating in Carcinoma of Tongue.**—Jacobson prefers, above all others, Whitehead's intrabuccal operation, as giving good access, in allowing the best preventive of hæmorrhage, viz., the tying of the lingual arteries, and in guarding aseptis. He prefers the A. C. E. mixture, followed by chloroform, for anæsthesia. The patient is taught, in advance of the operation, how to keep the mouth clean and how to feed himself with a tube. The author advises the simultaneous removal of the adjacent glands.

5. **Ateleiosis.**—Gilford describes twelve cases of this form of lack of development, which generally includes both dwarfism and infantilism; limited physical growth only, goes on till about the age of thirty. The pathology is still quite obscure; there is defective development of the whole body, and this is often preceded by hypoplasia of the sexual organs, and is prone to be associated with some developmental anomaly of other parts.

6. **Cerebral Abscess.**—Burnet considers that this is often an obscure and undiagnosed condition; in the two cases he cites, he was able to perform a post mortem examination, without which he could not have certified to the cause of death. Abscess may be present for a considerable time without giving rise to any symptoms; there may be no ear complication; twitchings, drowsiness, mental inactivity, which are often present, are apt to be attributed to renal disease. Another symptom, which was prominent in Burnet's cases, was extreme emaciation, which, to the ordinary practitioner, is only too liable to suggest only tuberculosis, or malignant disease. The importance of post mortem search is insisted upon.

PRESSE MEDICALE.

July 18, 1903.

1. New Cures of Cancer by Cancroïne,
By ADAMKIEWICZ.
2. A Trial of Leucotherapy in Infections,
By MARCEL LABBÉ.
3. Fæcal Fermentation and Its Clinical Value in Certain Diseases,
By A. HABEL.

1. **Cancroïne for Cancers.**—*Presse médicale* published, on January 22, 1902, a history of four cases of cancer of the œsophagus cured by cancroïne, which is a trimethylated base of ammonium oxide in double combination with phenol and citric acid. Renault, a physician at the Hôpital Saint-Louis, reports six more cases. (1) Cancer of the tongue in a woman fifty-four years of age. Adamkiewicz saw her first on January 21, 1902, when the tongue completely filled the mouth, rendering speech impossible; the organ was purplish, and deeply furrowed on the left side, while the right side was covered with indurated nodules. Salivation was constant and profuse. feeding was by a tube, difficult to introduce. Two indurated ridges descended under the lower jaw to the submaxillary glands. After sixteen hypodermic injections of cancroïne, on April 20th, all swelling had completely disappeared and general health was excellent. (2) Cancer of the larynx, in a case in which tracheotomy had been performed, and all glands of the neck were greatly swollen. There was improvement during two months, but death finally ensued. (3) Cancer of the stomach in a woman, thirty-eight years of age, a native of Palestine. Case diagnosed by Nothnagel, on February 20th, by the absence of free hydrochloric acid. Although there was no appreciable tumor in the gastric region, there was a subclavicular adenitis. A heavy dose of cancroïne was administered February 27th, which resulted in intoxication, but vomiting ceased at once, and from total anorexia, sufficient appetite was aroused to allow the ingestion of soup, fruit, and some meat, on the following day. By March 18th, this patient thought herself well enough to return home. (4) Cancer of the breast, in a woman forty-five years of age, recognized histologically. There had been four operations, and the disease had invaded the cicatrix and the axilla. These nodules were excised, but there was again recurrence with pain in the arm and œdema of the hand. These symptoms disappeared first under cancroïne, but several months were necessary to reduce the clavicular swelling. Kugel, of Bucharest, a relative of the patient, watched this case, and after seventeen months' treatment, declared her cured, the conclusion being based on her good general condition, although the tumor was still perceptible to the touch. (5) Cancer of the uterus in a woman, sixty-four years of age. Ablation had been postponed on account of bronchial complications. Microscopic examinations at the Pathological Institute of Griefswald, and by Karl Ruge, of Berlin, confirmed the diagnosis. There were no metastases. Six tenths of 1 c. c. were given at first, and the dose was gradually raised to 1 c. c., but as the results were hæmorrhage and painful uterine contractions, the

smaller dose was resumed. The effect was the elimination of the carcinomatous nodules and the subsequent cessation of hæmorrhage. Mantey-Elsterwerda, one of the attending physicians, certified to a positive cure of cancer after three months' treatment. (6) Cancer of the retina. Bertha Katscher, a writer of some note, had been operated upon twice for cancer of the right breast. Shortly after the second operation, she consulted, for blindness of the left eye, Goldzieher, of Buda-Pesth, who sent her to Adamkiewicz with a diagnosis of cancerous infiltration of the chorioid and partial detachment of the retina. This diagnosis was confirmed by Sachs, assistant in the ophthalmological clinic of the University of Vienna. Sachs also followed up his ophthalmoscopic examinations during the treatment by cancraine, and certified to actual resorption of a cancerous process and restoration of vision to two thirds of normal. The conditions in the breast cicatrix were also improved.

Adamkiewicz considers cancer to be due to a living organism and not an epithelial proliferation; his cancraine kills the organism, but will not cure where a vital organ has been so affected as to lose its physiological functions. Cancroine will cure, or at least prolong life, and never do harm. The dose is from $\frac{1}{2}$ c. c. daily to 2 c. c. in grave cases, determined by the extent of the disease and the reactionary power of the patient.

LYON MEDICAL.

July 12, 1903.

1. On the Dangers of the Administration of Sodium Chloride to Invalids Potentially Anasarcaous,

By J. COURMONT.

2. Two Cases of Intestinal Perforation in the Course of Typhoid Fever,

By G. MOURIQUAND.

1. Courmont adds his experience to that of Widal, Lemierre, and Merklen, who agree as to the danger of giving sodium chloride to "asystolics." The first two gave seven patients 10 grammes of NaCl daily by the mouth. Three had interstitial nephritis with marked œdema, and four were arteriosclerotics with interstitial nephritis. In two of the first class, the sodium caused anasarca and pulmonary œdema, which disappeared with its withdrawal. The third was unaffected. In two cases of the second class, urinary elimination of the chloride was proportionate to the amount taken, and much inferior in the two others. Merklen pursued this line of investigation with cardiac œdema. We know that the liquid of œdema, especially recent œdema, is richer in sodium chloride than the bloodserum. Under milk diet, which is achloric, there is a discharge of chloride in the crisis of polyuria. Sodium chloride in excess is œdematogenous, when the renal emunctory retains the chloride. (*To be continued.*)

July 19, 1903.

On the Dangers of the Administration of Sodium Chloride to Invalids Potentially Anasarcaous (*Concluded*),

By J. COURMONT.

Sodium Chloride and Anasarca.—Courmont says that in January, 1902, Chanoz and Lesieur were studying the importance of cryoscopy in

renal insufficiency on Courmont's patients. One of the latter, under 10 grammes of sodium chloride daily, had a uræmic convulsion with œdema; this began Courmont's researches on this subject. He proceeds to give full details of five cases, in none of which the chloride was beneficial, and in three it produced alarming symptoms. In one case, where there were polyuria and albuminuria, but not real Bright's disease, the chloride produced no ill effects. Combining his experience with that of other investigators, Courmont says we must no longer consider sodium chloride as a harmless agent. The injection of artificial serum must not be used indiscriminately as a restorative; it may cause anasarca, retention of urine, and uræmia. It is too soon to state positively when it should not be administered, but we may well be on our guard in all cases of asystolism, cardiac or renal, and where there is likelihood of œdema or anasarca; these symptoms generally imply retention of chlorides. We should even avoid salted foods. Since milk seems so beneficial, Courmont inclines to believe it is because milk contains no chlorides. Could we not modify the severe dietetic regimen of nephritics, simply by avoiding salt? It would seem as if we had a test for the renal condition superior to methylene blue in this action of sodium chloride. It is the degree to which chlorides are eliminated, considered either alone or combined with cryoscopy, that tells the true nature of the renal impermeability. Chloride retention does not necessarily imply a fatal prognosis or a chronic lesion; it is curable, since it occurs in acute nephritis, itself curable.

REVISTA DE ESPECIALIDADES MEDICAS

June 20, 1903.

1. Treatment of Uterine Cancer Coexistent with Pregnancy,

By SEBASTIÁN RECASENS.

2. Sedatives in the Treatment of Hyperchlorhydria,

By GONZALES CAMPO.

1. **Uterine Cancer and Pregnancy.**—Recasens draws the following conclusions at the close of a paper with this subject: The sole possibility of cure in uterine cancer lies in total hysterectomy, performed before the parametrium and lymphatic system have been invaded. (2) During the first four months of pregnancy, the operation may be performed equally well by the vaginal or abdominal route. (3) Abdominal hysterectomy is to be preferred; not only because of the greater facility of hæmastosis, but also because extirpation of the parametrium and lymphatic ganglions is practicable by this method. (4) During the fifth and sixth months, the operative indications are the same as in the first four; because the life of the foetus is incompatible with the safety of the mother; therefore it must be sacrificed. The abdominal route should be chosen. (5) Abdominal hysterectomy, in the first six months, should be practised without opening the uterine cavity. (6) In the last three months, the operative indication is also immediate; but Cæsarean section, followed by hysterectomy, should be practised, in the hope of saving the foetus. (7) When the carcinoma has invaded the parametrium and lymphatics, no matter what the period of gestation, all hope of a

radical cure should be abandoned and the entire care directed to the preservation of the fœtus. (8) In inoperable cases, the period of viability of the fœtus should be awaited, when Porro's operation should be performed; this being delayed as long as is compatible with the mother's condition. (9) When, in inoperable cancer, labor has commenced, if the bag of waters is intact, the indication for Porro's operation still holds good; and if the fœtus is imprisoned, the forceps should be applied after preliminary incisions in the external os.

2. Treatment of Hyperchlorhydria.—Campo believes that the symptoms in so-called hyperchlorhydria are due to hyperæsthesia of the gastric mucosa—by reason of which its nerve endings are especially sensitive to the influence of the hydrochloric acid—rather than to excessive acid secretion. It has been his frequent experience that the gastric juice of patients clinically cured of hyperchlorhydria, showed the same degree of acidity after subsidence of symptoms as before treatment. Also, many patients presenting the symptoms of hyperchlorhydria, have no excess of hydrochloric acid in the gastric secretion. To the fact that the sensitive nerves are spared irritation from the acid through its neutralization by alkalis is due, in the author's opinion, the relief experienced, though the amount of acid remains the same. Thus, paradoxical though it may seem, the hyperchlorhydria is cured, though the hyperchlorhydric patient is not. The writer believes, further, that the beneficent effect of alkalis, in this condition, especially sodium bicarbonate, is not alone due to their chemical action, but that they exert a sedative influence upon the nerve endings. Acting upon the theory that hyperæsthesia is the chief cause of discomfort in hyperchlorhydria, Campo administers sedative treatment in this condition; and has had the best results from menthol and cocaine in the following proportions: Menthol, half a gramme ($7\frac{1}{2}$ grains); cocaine, hydrochloride, half a gramme ($7\frac{1}{2}$ grains); alcohol, 10 c. c. (160 minims). Each drop of the solution contains a milligramme and a half of menthol and a like amount of cocaine. Five to ten drops, given at the onset of distress, afford great relief; and this relief is of greater duration than that experienced from the use of alkalis. After a few days, the dose may be decreased and finally dropped altogether as the symptoms subside. The latter either disappear entirely or return only after a lapse of time, as they do after other medication.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

June 14, 1903.

1. The Power of Renal Work Graphically Expressed, and the Etiology of Renal Disease.

By SILVANO MIRCOLI.

2. Experimental Researches on the Use of Antitoxine by Mouth.

By FIGARI.

3. The Use of Calcium as a Hæmostatic,

By TORINO SILVESTRI.

1. The Curves of Renal Work and Incipient Renal Disease.—Mircoli says that cryoscopy is of no clinical value in determining the presence of

renal lesions, much less in telling what variety of lesions is present in the kidneys. He measures the work of the kidneys as follows: The work of the kidneys is equal to the density of the urine multiplied by the number of cubic centimetres voided, divided by the number of hours of observation. Thus, a urine of a density of 1.010 means that the kidneys void one gramme of solids to every hundred grammes of liquid. And if one hundred grammes of urine have been voided during two hours, the work of the kidneys is represented by half a gramme an hour. Another element of the work of the kidneys, however, is the amount of liquid solvent secreted, and this is simply measured as the urine is voided, this volume being divided by the number of hours of observation. Two curves, the curve of solids in work-hours, and the curve of volume in work-hours, have been constructed by Mircoli in a series of cases of renal disease, and also in healthy individuals, and the relations of these curves to each other have been studied. Mircoli concludes that these two lines in health present a parallelism which is the more striking the more nearly normal the kidneys are. Any alteration in the function of the kidneys alters these curves. In cases of parenchymatous or predominantly parenchymatous nephritis the two lines tend to cross each other. In cases of interstitial nephritis, and in cases of mixed nephritis, the two lines differ from the normal by their height and the shape of the curve, but they keep more or less parallel. The anomalies of these curves may persist when the patient is apparently cured, so far as clinical, chemical, and microscopical evidence is concerned; therefore they indicate the latent stages of renal disease. On account of the tendency of one kidney to compensate in function for lesions of the other, it is impossible to be sure, when the curves are normal, that there are no lesions in the kidneys; but when the curves are changed, then the presence of lesions may be affirmed.

2. Tuberculous Antitoxines by Mouth.

Figari reports in a preliminary note the results of experiments on animals and of one test in a man, regarding the antitoxic effect of certain substances given by mouth. He rendered animals immune against tuberculosis and attempted to give their serum per os to other animals, in order to determine whether the antitoxic power of the serum is transmitted to the animal experimented upon. In order to facilitate the giving of the antitoxic substances the author dried them by taking the blood of the immunized animals, evaporating the clot to a pasty consistence, at a temperature not exceeding 55° C., and exsiccating with sulphuric acid. By this means he obtained a friable mass which could easily be powdered, and which could be mixed with the food of animals in doses of three grammes daily for guinea pigs. His experiments with these animals showed that the agglutinating power of their blood was increased and that their serum was endowed with antitoxic powers. An increase of the agglutinating power of the blood was also noted in a man similarly fed. The conclusion of the author was, that the blood-cells of the immunized animals contained a sub-

stance which was not destroyed by a temperature of 55° C., and which endowed the blood of other animals with agglutinating and antitoxic powers when taken in by the stomach.

CHIRURGIA.

April, 1903.

1. A Historical Sketch of the Teaching of Surgery at the University of Yurieff (Dorpat),
By N. V. KOPYLOFF.
2. A Clinical Study of Otitic Pyæmia,
By I. S. GESHELIN.
3. On the Fixation of Movable Kidneys,
By A. MARTYNOFF.
4. One Hundred and Twenty Hernia Operations,
By P. N. MICHALKINE.
5. Cystadenoma of the Liver and Its Operative Treatment,
By V. N. ORLOFF.

2. **Otitic Pyæmia.**—Gesheline reports 24 cases of otitic pyæmia, of which twelve were caused by chronic inflammation of the middle ear and twelve by acute otitis media. In all operations for otitic pyæmia, the author follows a certain routine, varying his mode of procedure according to the case. He begins with trephining, but in acute cases does not try to make a large opening in the cranium. The extent to which the sinus is to be exposed varies according to the degree of involvement of the bone along its course and also of its walls. It may be necessary to expose the dura mater which is the immediate prolongation of the sinus. The latter is punctured, and if unaltered blood exudes, the operation is interrupted and the expectant plan of treatment followed. If a hard or a soft thrombus is revealed the sinus is opened, and the thrombus is gently removed, or the wall of the sinus resected and its cavity tamponed. If the fever continues after the operation, the jugular vein is tied and the remains of the thrombus are very carefully and gently removed. If fever continues, although no thrombus has been found in the sinus, and especially if metastatic abscesses occur, the jugular should be tied, assuming that the thrombus is situated in the lowest part of the sinus and arises from the bottom of the tympanum. As regards the indications for the operation, the only cases in which expectant treatment may be substituted in the presence of pyæmia due to otitis, are those in which there are no symptoms in the region of the mastoid. If such symptoms are present, the operation is always indicated. In a chronic otitis the indication is also distinct, for it is better, even if the sinus and mastoid should prove healthy and the fever due to something else, to liberate the patient from the sword of Damocles which is always hanging over him.

3. **Nephropexy.**—Martynoff analyzes the result of nephropexies in seventy-four cases reported by Russian surgeons. Of these, eleven were in men and sixty-three in women. In sixty-five cases the right kidney was displaced, in six the left, and in three, both. The symptoms manifested in these patients were not at all in proportion to the degree of mobility. A great diversity of opinions existed among the contributors to this collective investigation as regards the indications

to the operation, and this uncertainty is probably due to the lack of confidence in the success of nephropexy. Of the seventy-four cases there were seven failures, including five cases not improved and two deaths. In twenty-one cases there was marked improvement and no return of the symptoms after more than two and one-half months. In forty-four cases the patient was discharged considerably improved, but in two of these the result was somewhat doubtful. In none of this group of patients was a record kept of the subsequent course. In two cases the pain returned after the operation, although the kidney remained immovable; in one case both pain and mobility returned. The author found that the method of operation did not play an important rôle in the final results of the operation; it seems, however, that success is more certain in those cases in which the mobility depends on a known cause, such as an injury, a fall, etc., while in the cases in which the cause is unknown, the successes of operations are more doubtful. It seems also that persons who are anatomically predisposed to movable kidney, according to the theory of Volkoff and Delaisine, have less chances of a successful fixation. [This theory assumes that the shape of the renal fossæ is a factor in the causation of movable kidneys. In women these fossæ are flattened.] An operation should only be undertaken, according to the author, when the palliative means have failed to relieve the symptoms of movable kidney.

4. **Hernia Operations.**—Michalkine reports 120 cases of radical hernia operations performed in 113 patients within four years and a half. In 87 patients the operation was performed by Bassini's method, in the rest, other methods were used. The mortality in the strangulated cases was 16.6 per cent.; in the reducible cases there were no deaths. The best results were obtained with Bassini's method, and the author considers this operation as the most satisfactory of all the methods hitherto proposed for inguinal hernia. In the umbilical hernias the method of Lucas-Championnière, with multiple tiers of sutures, was used, in all cases with success.

5. **Cystadenoma of the Liver.**—Orloff reports a case of cystadenoma of the liver occurring in a woman aged forty-five, who had noticed a swelling in the umbilical region after her first pregnancy. Two years before admission there appeared a feeling of weight in the right subcostal space which was soon followed by gnawing pains transmitted to the right scapula. During the last few months she had lost considerable weight and had developed marked dyspeptic symptoms. An umbilical hernia was found. The liver was enlarged, and the upper part of the abdomen was occupied by a dense, irregular, bosselated tumor which moved with the respiration. Laparotomy revealed a cystadenoma of the liver, the surface of which was occupied by a series of cysts of various sizes. The largest cysts were opened, and parts of their walls resected. The hernia was treated by radical operation, and the patient improved considerably. In commenting upon this

case the author calls attention to the fact that clinically there may be no disturbances of the functions of the liver in spite of the fact that this organ is extensively involved in cyst formation. Jaundice occurs only incidentally in these cases. In the diagnosis the presence of cysts in the kidneys, ovaries, mammary glands, etc., is very valuable, although these organs may not be involved at the same time as the liver. The examination of the gastric contents will assist in the diagnosis of this condition from metastatic cancer of the liver. The operative treatment varies according to the conditions of the patient and the nature of the contents of the tumor. If it is impossible to remove the entire new growth a partial resection of the cyst wall may be performed and the remainder of the cyst closed permanently.

POLICLINICO.

(Sezione Pratica, June 20, 1903.)

1. Ten Cases of Extrauterine Pregnancy,

By ULDERICO ROLANDI.

1. **Extrauterine Pregnancy.**—Rolandi, speaking of the causes of this condition, suggests that membranous dysmenorrhœa may be one of the ætiological factors of extrauterine gestation, the hyperplasia of the uterine mucosa preventing the ovum from taking its normal location. Only two of the ten patients showed no history of some gynecological condition before the pregnancy in question. The coincidence of the tubal abortion with a menstrual period was noted in six cases. In three patients the menstrual flow persisted through the gestation. The secondary signs of pregnancy were present in three cases. Of the ten cases only one was not operated upon, the patient refusing surgical intervention. In one patient a posterior colpotomy was performed, in the others laparotomies. In some cases counter openings were made in the vagina, in addition to laparotomy, according to Donner's method. In all cases the sac was, if possible, removed as a whole, no attempt being made to separate the placenta, as some authorities advise.

BERLINER KLINISCHE WOCHENSCHRIFT.

July 6, 1903.

1. Infection with Plague in the Institute for Infectious Diseases, By W. DÖNITZ.
2. Bilateral Herpes Zoster, By RECKZEH.
3. Relations of Congenital Coxa Vara and Defects in the Femur, By M. REINER.
4. Persistence of Botalli's Duct, By G. ARNHEIM.

2. **Bilateral Herpes Zoster.**—Reckzeh says cases of bilateral herpes zoster are rare. He describes a case in a woman, forty-two years of age, suffering from myocarditis and hysteria, in which the herpes started on the right side in the region of the tenth to twelfth dorsal segments and within thirteen days spread to the left side. The character and arrangement of the eruption were typical, there were neuralgic pains and swelling of the inguinal glands. The last is a common complication when the herpes is below the seventh dorsal segment. The bilateral cases probably point to a central origin, while a peri-

pheral cause may be assumed for most unilateral cases. Reckzeh thinks that arterial changes in connection with the diseased heart may account for the disease in this case.

3. **Coxa Vara and Femoral Defects.**—Reiner believes that cases of coxa vara represent an early stage of the deformity which at its termination represents a congenital defect of the femur. The author has proved to his satisfaction that the subtrochanteric region is a weak spot in the bone and one disposed to favor an interruption of the continuity of the bone. He describes the femur of a six months' old child, which presented a separation at the subtrochanteric region at the proximal border of the periosteal centre of ossification. The fracture or separation had been healed by a false joint.

4. **Persistence of Botalli's Duct.**—Arnheim describes a boy, aged three years, who, without cyanosis, showed cardiac dulness for four cms. to the left of the sternum, an enormous hypertrophy of the left ventricle, and altered heart tones. On these signs, the diagnosis of persistent Botalli's duct was made. In this case, the author believes there is also a narrowing of the aorta, as well as an abnormal origin of the subclavian and carotid arteries.

ZENTRALBLATT FUER CHIRURGIE.

July 4 and 11, 1903.

1. Retroduodenal Choledochotomy, By A. A. BERG.
2. Case of Ileocaecal Invagination, By J. P. ZUM BUSCH.
3. Technics of Paraffin Prosthesis, By F. FRANKE.

1. **Retroduodenal Choledochotomy.**—Berg suggests the removal of gall stones impacted in the retroduodenal and papillary portion of the common duct, by a retroduodenal choledochotomy. He has not had opportunity of practising it on the living body, but on the cadaver it is easy, and seems freer from danger than McBurney's transduodenal choledochotomy.

3. **Paraffin Prosthesis.**—Franke suggests that in every first injection of paraffin for prosthetic purposes, anæsthesia be employed, unless the patient is of an unusually strong will. He also recommends a lower melting point for the paraffin than is usually employed, at a temperature of from 45° to 50° C.

ZENTRALBLATT FUER INNERE MEDIZIN.

July 4, 1903.

1. Inhibition of Hæmolysis in Uræmic Conditions, By E. WOLZE.

1. **Inhibition of Hæmolysis in Uræmia.**—Wolze reports a case of uræmia, the blood serum of which was injected into a rabbit and acted inhibitorily upon the hæmolysis of the rabbit's blood. Other experiments were made with the blood of anæmic patients, of scorbutic, chlorotic, and leucæmic patients, but no similar reaction was obtained. It would thus appear that a specific uræmic phenomenon is present in the blood. Despite the inhibition of hæmolysis, the agglutination of the red blood cells was clearly seen.

MUNCHENER MEDICINISCHE WOCHENSCHRIFT.

July 7, 1903.

1. Simple Method of Detecting Phosphorus,
By W. STRAUB.
2. Anastomatic Circulation of the Heart,
By G. GALLI.
3. Massage of Recent Fractures,
By JORDAN.
4. Congenital Absence of Clavicles,
By A. GROSS.
5. Balance of Energy in the New Born.
By H. CRAMER.
6. Brucine,
By A. FROMME.
7. Operative Treatment of Dislocation of the Retina,
By R. DEUTSCHMANN.
8. Chronic Dystrophies and Trophoneuroses of the Skin
(Concluded),
By F. VOLHARD.

2. **Anastomatic Circulation in the Heart.**—In the case reported by Galli the right ventricle was found fully nourished despite complete closure of the right coronary artery. On close inspection, a small branch connecting the right and left circular arteries was found, so that the right ventricle received its vascular supply from the left coronary artery.

3. **Massage of Recent Fractures.**—Jordan approves of immediate massage and mobilization of fresh fractures. His experience with fractures of the radius by this treatment has been very satisfactory, when there was only a minimal dislocation. When there is a very marked dislocation of the fragments, the combination of massage with permanent fixation until callus has been formed, is useful and beneficial. The patients are usually free from pain, regeneration of the crushed muscles is fostered and the cure and functional restoration are usually simultaneous, while the method is more rapid than others in bringing about a cure.

4. **Congenital Defect of the Clavicles.**—Gross reports this case in which the clavicles were accidentally found to be wanting. Their absence had never given rise to any inconvenience. There were other osseous defects present, so that the case is to be regarded as one of embryonal defect, possibly due to some foetal disease, such as rickets.

CENTRALBLATT FUER KINDERHEILKUNDE.

July, 1903.

1. Free Milk Stations for Nurslings, By ERNST DEUTSCH.

1. **Free Milk Stations.**—Deutsch discusses the reasons for the establishment of free milk stations and gives a complete list of such institutions. In reviewing the essentials for the proper conduct of such stations, he says that the health of the cows shall be under the supervision of competent veterinary surgeons. The food of the cattle must be such that they have no fluid faeces. The bacteria which enter the openings of the teats are usually pressed out with the first milk expressed, so that this milk should be caught in a different receptacle from that which will contain the rest of the milk. The animals must be kept clean, and the teats carefully washed before each nursing. It is well to fasten the tail while milking is proceeding. The milk should be immediately cooled to less than 10° C., and transported at the same

temperature and carefully kept until used. It should not contain less than three per cent. of fat and its acidity must not be allowed to increase. Deutsch prefers pasteurization to sterilization.

MONTREAL MEDICAL JOURNAL.

July, 1903.

1. An Experimental Study on the Effect of the Bloodserum of Normal and Immunized Goats in Modifying the Progress of Tuberculous Infection,
By A. NICHOLLS.
2. A Case of Gastric Syphilis,
By H. A. LAFLEUR.
3. Giantcelled Sarcoma of Lower Jaw—Resection with Prosthetic Use of Silver Wire,
By EDWARD ARCHIBALD.
4. Valedictory Address,
By FRANK BULLER.
5. On the Coagulation of Blood in Its Relation to Thrombosis and the Formation of Fibrinous Exudate,
By LEO LOEB.

1. **Experiments with Bloodserum of Goats.**—Nicholls recalls that the serums of several normal animals possess natural antitoxic bodies; horse serum possesses two or three hundred antitoxic units against the diphtheria germ, and Maragliano states that human serum has three to four hundred antitoxic units against *Bacillus tuberculosis*. Two experiments were undertaken with normal goat serum on pigs, guinea pigs, and rabbits previously inoculated with tuberculosis, and the conclusion drawn that it does possess a very slight influence on the progress of tuberculosis. The third experiment was with serum from a goat, immunized, with the result that the progress of tuberculosis was definitely checked in the animals treated therewith, as compared with the other inoculated animals, who did not receive it. Nicholls concludes that it is likely we shall be able to prepare a serum notably antitoxic to tuberculosis, although Koch is possibly right, when he says immunity to the action of the toxic products of the tubercle bacillus does not necessarily mean immunity to tuberculosis.

2. **Gastric Syphilis.**—Lafleur's case is of interest, as the lesion was observed *intra vitam*, and the patient has made a perfect and lasting recovery. The patient had a sore on the penis in 1892, and had been treated for syphilis; in 1896, he had severe pains in the hips and lower limbs, and in 1901, indigestion and diarrhoea, with flatulency, fulness, gnawing feeling in stomach, worse after taking food. The diarrhoea yielded to treatment, but not the pains. Examinations after a test meal showed an inert gastric juice, without hydrochloric or organic acids, and devoid of digestive action on coagulated albumen. Inflation through the stomach tube showed the stomach prolapsed and dilated; washings showed small flakes of mucus, streaked with blood. The patient steadily failing, gastroenterostomy was advised. After primary incision, no reason for gastroenterostomy being present, the stomach was opened and the following condition found: stomach wall thick, about 1 cm., in places 1½ cm.; little bleeding; muscular tissue harder than normal. The everted surface showed complete denudation of the mucosa over an area extending completely around

the stomach at the pyloric end of the incision. The same condition extended along the interior and anterior aspect of the stomach; there were small islets of mucous membrane having a rough cockscomb appearance and a purplish tint. The edges of the ulcerated area were well defined, serpiginous in outline and abrupt. The edge was very slightly heaped up and undermined, and just in the undermining angle was a whitish line. The surface of the ulcerated and denuded area was rather smooth, neither caseous nor necrosing, of a pinkish red color and almost bloodless. In the thickened area some cicatrization and contraction had occurred producing a certain degree of hour-glass contracture two or three inches from the pylorus. A slice of mucous membrane, a section through the muscular wall and mucosa, and a snipping from the edge of the ulcer were taken for microscopical examination. The exuberant edges of the ulcer were pared, the base was curetted, and the thermocautery lightly applied to as much of the ulcerated surface as could be reached. The gastric and abdominal wounds were then closed by suture. The subsequent course of the patient's illness was quite uneventful. There was no recurrence of vomiting or gastric distress, and when he left the hospital he was taking a full and varied diet, and gaining weight. Antisyphilitic treatment was commenced after leaving the hospital and was continued with intermissions through the summer. The examinations of the tissues removed at the time of the operation were reported as follows: The tissue from the base suggested malignancy, for there were small masses of epithelial cells surrounded by a fibrous stroma. But the edges of the ulcer were simply fibrous tissue and muscle, the former in excess, and there was no marked infiltration. The base was markedly inflammatory, not malignant. Microscopically, the lesion was the exact counterpart, save in dimensions, of that described and figured by Flexner in Vol. xiii of the Transactions of the Association of American Physicians as one of syphilitic ulceration. It is suggestive that the same masses of epithelial cells surrounded by a fibrous stroma described by Flexner in his case were found in the tissue from the base of the ulcer. The diagnosis of syphilitic ulceration of the stomach is not one that should be made without careful consideration.

AMERICAN JOURNAL OF OBSTETRICS.

July, 1903.

1. Diagnosis and Treatment of Medium Degrees of Pelvic Deformity, By J. M. MUNRO KERR.
2. Accouchement Forcé (Manual Dilatation, Bag Dilatation), By ROBERT L. DICKINSON.
3. Abdominal and Vaginal Cæsarean Section as Means of Accomplishing Accouchement Forcé, By J. CLARENCE WEBSTER.
4. Cervical Incisions in Labor, By R. W. HOLMES.
5. The Bossi Dilator, Its Place in Accouchement Forcé, By J. B. DE LEE.
6. The Effects of the Toxæmia of Pregnancy Upon the Cardio-Vascular System, By RICHARD C. NORRIS.
7. A Report of the Major Operations Performed on the Service of Dr. H. D. Nicoll at the Woman's Hospital in the State of New York from February, 1901, to

June, 1902, with Remarks on the Technique Employed, By DOUGAL BISSELL.

8. Report of a Case of Tubercular Pyelonephritis, Ureteritis, and Cystitis, Weight of Kidney After Removal Eighteen and One Half Ounces, By W. L. BURRAGE.
9. Objections to the Vaginal Route in the Treatment of Ectopic Gestation, By J. WESLEY BOVÉE.
10. Concerning the Nature of the Small Cysts Frequently Found in the Peritonæum Covering the Fallopian Tubes, By THOMAS G. DICKSON.
11. Report of a Case of Cyst of the Round Ligament, By A. BROTHERS.
12. Placenta Prævia, By JOHN F. MORAN.
13. A Plea for the Better Care of Women After Labor, By W. M. SPRIGGE.

2. **Accouchement Forcé.**—Dickinson sums up his presentation of this subject as follows: For the induction of labor during the latter months of pregnancy and for inertia during labor, eliminating other causes, such as exhaustion, over distension, and malposition of the pelvic canal or the fœtus, the use of the bag dilated by water (Voorhees's being preferred) is first recommended, and next in order the careful use of the hand. The forceps may be required in either case to complete the delivery. In cases of placenta prævia the water bag should be used for the bleeding cervix if the head does not plug it satisfactorily, while for the bad cases version is indicated, the thigh of the fœtus being the most effective tampon. In cases of hæmorrhage from premature detachment of a normally located placenta manual or metal dilatation is recommended, with as much rapidity as is consistent with safety. In cases in which the cervix is rigid, in the early months of pregnancy, in the cervix rigidity of elderly primiparæ, in the rigid cervix which sometimes comes with eclampsia, the powerful Bossi dilator is recommended.

3. **Abdominal and Vaginal Cæsarean Section as Methods of Accouchement Forcé.**—Webster believes that these operations will rarely be indicated. The technics of the former is well-known, the latter has been advocated by Dührssen and others since 1895. In the latter a circular incision is made through the mucosa surrounding the portio vaginalis at the fornix and extended on either side for half an inch. The mucosa is then stripped upward with the bladder, the portio being drawn down with a volsella. The bladder is held with a retractor and the anterior and posterior lips of the portio divided in the middle line, or the anterior lip alone if the pregnancy is premature. The anterior incision is extended into the lower uterine segment, but the peritonæal cavity must not be opened. Bleeding is controlled by forceps, or by ligature if necessary. Version or extraction with forceps follows, then the removal of placenta and membranes, the uterus is tamponed, and the incisions are closed with catgut. Abdominal cæsarean section for eclampsia has a high mortality rate and is rarely indicated. It may be performed if delivery by the ordinary passage is impossible. It may also be done immediately after the death of an eclamptic, the child being still alive in utero. Vaginal cæsarean section may be performed for rigidity of the cervix in preg-

nancy or early labor. It is preferable to Dührssen incisions, or to powerful metal dilators. Cæsarean section for placenta prævia is rarely indicated. A small vagina, excessive hæmorrhage and contracted pelvis in a girl of 14 were the indications in a case operated upon by the author, by the abdominal route. The operation has been done by the vaginal route by Bumm, but call for great skill is seldom required. In accidental hæmorrhage from premature detachment of the normally located placenta the abdominal operation may be performed if it is impossible to deliver by the vagina. The vaginal operation may be undertaken if one is an expert operator if the condition is critical, and rapid dilatation cannot be accomplished. With disease of the heart, lungs, or kidneys if the condition requires rapid delivery, vaginal section may be performed if the cervix cannot be readily dilated, but the abdominal operation should be performed only as the last resort. If the mother is *in extremis* and the fœtus is viable, abdominal section should be performed immediately after the mother's death, in the interest of the child.

4. Cervical Incisions in Labor.—Holmes draws the following conclusions: 1. Dührssen was not the first to recommend the incisions which are usually accredited to him. 2. Effacement of the cervix is a pre-requisite to such incisions. They are especially applicable to primiparæ, and are often contraindicated in multiparæ. 3. They are often of value and may be essential; the judgment of the operator must be applied to each case individually. 4. Preliminary manual dilatation does not give the best cervical condition for incisions. 5. Incisions offer as potential dangers, infection hæmorrhage, and extensive laceration beyond the vaginal vault. 6. An operation of this character calls for suitable instruments, assistants, and experience in obstetric procedures. 7. The details of the technics may be modified as the operator may think proper. 8. As few incisions as possible should always be the rule. 9. The after effect of oblique incisions is sometimes preferable to that of the customary quadrant incisions. 10. If there is no hæmorrhage nor accessory laceration, it may not be necessary to close the incisions by suture. 11. Immediate delivery should follow the incisions.

5. The Bossi Dilator.—De Lee narrates the histories of three cases, all of them resulting fatally, in which he used this instrument. His conclusions are: 1. There is a small field of usefulness for this instrument in cases in which rapid dilatation of the cervix is necessary after effacement. Before effacement the colpeurynter should be used. Greater success will be obtained with multiparæ than with primiparæ. 2. The instrument will be serviceable in the same cases as manual dilatation. Its advantage over the hand is its possibility of more complete asepsis, together with the opportunity it offers to dilate without fatigue, thus allowing the operator to complete the delivery without great discomfort. 3. It is not a safe instrument, but requires careful and skilled watchfulness. One must expect more or

fewer lacerations and be prepared to treat them at once. The injuries to primiparæ are usually greater than to multiparæ. 4. It should never be used for placenta prævia. 5. It is not, for all cases, a substitute for the colpeurynter, the hand, or incisions of the cervix.

6. Effects of the Toxæmia of Pregnancy Upon the Cardiovascular System.—Norris observes that the effects of the toxæmia of pregnancy have been studied after death from eclampsia, and such lesions found as punctate hæmorrhages and areas of cellular necrosis in the liver, liver cell emboli, thromboses, emboli of placental giant cells, disintegration of the blood with consequent destructive effects upon the walls of the vessels, areas of gangrenous pneumonia, hæmorrhagic foci in the brain, and various pathological changes in the kidneys. This variety of conditions indicates that no single organ is uniformly diseased, in eclampsia, and that toxæmia is the important factor in its etiology. The cardiovascular system in pregnant women who suffer with toxæmia may be profoundly affected, the toxæmic storm spending its fury upon the heart, or upon its nervous mechanism and the circulation. It is probable that when the toxins have sufficiently accumulated to produce irritation the vasoconstrictor nerves of the heart are stimulated and the customary high tension pulse follows. When the poisons are sufficient in volume to overwhelm the patient, the pulse tension falls and then, in fatal cases, disappears. The most important clinical and constitutional sign of a beginning toxæmia in pregnancy is to be found in the pulse. Whenever a coated tongue, headache, nausea, extreme nervousness with insomnia, and disturbance of the special senses are observed in a pregnant woman the pulse will show increased tension and the headache will be relieved by those drugs which relieve arterial tension. Prophylactic measures against eclampsia should then be instituted and the pulse studied not less carefully than the urine. When convulsions occur the value of venesection, chloral, and veratrum viride is shown in the relief of pulse tension. Such treatment is not indicated in cases which are almost overwhelmed with toxins and show a rapid low tension pulse. The author desires to emphasize the fact that while the grave toxæmia of pregnancy, by means of cardiovascular changes, causes brain disturbance which is manifested by convulsions in rare cases, some other organ, for example, the heart, may bear the brunt of the attack, and the patient may be overwhelmed and even die without convulsions. In other words, there may be a cardiac eclampsia resulting from the toxæmia of pregnancy. Three cases of this character are narrated, two of them being fatal. The details of the autopsies are also narrated.

9. Objections to the Vaginal Route in the Treatment of Ectopic Gestation.—Bovée was formerly in favor of operating by the vaginal incision for the relief of ectopic gestation, having had six successful cases. These were followed by four fatal ones and the difficulties encountered were such that he has abandoned that method of procedure. His reasons for preferring the ab-

dominal route are: 1. The field of hæmorrhage can be more quickly reached by the abdominal incision, taking into consideration the relative time required for cleansing the two routes under anæsthesia. 2. The condition can be more readily treated and the blood-vessels more satisfactorily ligated. 3. The danger from secondary hæmorrhage is less when ligation is practised, than when one simply removes bloodclots. 4. Other important lesions may receive attention at the same time. 5. The shock will be less than if both abdominal and vaginal incisions are made. 6. The tube can be more readily removed than by the vaginal route. 7. The abdominal route is applicable to all stages of pregnancy, while the vaginal is not suitable for the later stages. 8. The vaginal incision has no place in the treatment of unruptured tubal pregnancy, while the abdominal incision offers all possible advantages.

ARCHIVES OF PEDIATRICS.

May, 1903.

1. Congenital Tumors of the Kidney, By L. W. STRONG.
2. The Occurrence and Mortality of Typhoid Fever in Infants and Children, By H. KOPLIK.
3. The Etiology of Endocarditis in Childhood, By S. BLUM.
4. A Case of Self-induced Cystitis Due to the Colon Bacillus, By I. LEOPOLD and I. V. LEVI.
5. Inversion in the Treatment of Acute Pulmonary Œdema in Young Children, By T. S. SOUTHWORTH.
6. Congenital Hypertrophic Stenosis of the Pylorus, By H. BEARDSLEY.

1. **Congenital Tumors of the Kidney.**—Strong reports two cases of this character, and draws the following conclusions: 1. Histological comparison shows that these tumors resemble the embryonic Wolffian body. 2. There is a continuous system of tubules and their derivative cell masses throughout the tumor. 3. The tubules are the primary mesothelial elements and the cell masses are derived from them to retrograde metamorphosis. 4. The histological characteristics vary with the age of the part; the pelvic region is oldest and shows complete differentiation of mesenchyme and mesothelium, the metastases are youngest and show, not transitions between mesothelium and mesenchyme, but an embryonic condition where all cells are alike. 5. Bilateral tumors are coincident and not metastatic. 6. Metastases may occur through the lymph stream as well as through the blood stream.

2. **Occurrence and Mortality of Typhoid Fever in Infants and Children.**—Koplik notes the possibility of communication of typhoid fever from mother to foetus, usually by way of the placenta. Death and premature delivery usually result, but if the child survives until term it is infected and usually dies a few days after birth with signs of sepsis. The disease occasionally occurs in infancy to the age of two years, the cases being divisible into those which occur in the first year and those which occur in the second. The infrequency of the disease in infancy may be due to the fact that their food (at least, the bottle fed) is more or less subjected to the sterilizing influence

of heat. The susceptibility of infants to the infectious power of the disease, when they are exposed to it, is greater than that of adults. The mortality during the first year is about 50 per cent., for the second year it is far less, though the reports of different writers vary widely on this point. In children from two to ten years the mortality is not usually much more than 5 to 10 per cent., but the complications may be very severe. It is hardly correct to say that the disease usually runs a mild course in children of the ages mentioned. Death usually results from toxæmia, but may follow hæmorrhage, pneumonia, and perforation.

3. **Etiology of Endocarditis in Childhood.**—Blum says this disease may occur in foetal life and cause cardiac malformation, especially on the right side. Acute endocarditis may originate in early infancy, but rarely does it do so. The recurrent attacks are usually due to congenital defects. Acquired endocarditis is not uncommon after the fifth year. Rheumatism is an associated condition in a large number of the cases, indeed endocarditis may be regarded as a manifestation of rheumatism, the cause of which is probably a microorganism which has a predilection for serous surfaces. Endocarditis is frequently associated with tonsillitis and chorea. Scarlet fever, measles, diphtheria, and the other acute infectious diseases may be starting points for endocarditis, the fever and noxious substances in the blood impairing the resisting power of the heart, after which the weakened endocardium is successfully attacked by the specific bacilli of the disease. Malignant endocarditis occurs rarely in early infancy. The author gives a report of such a case. Endocarditis may be chronic as well as acute, it may be primary or secondary, and it may be produced experimentally. In congenital and infantile endocarditis there may be defective development, there may be simple reparative inflammation, or the cause may be unknown. In bacterial endocarditis the infecting agent may be the streptococcus, staphylococcus, tubercle bacillus, or bacillus pyocyaneus. Endocarditis may be associated with various diseases of which the bacterial agents are still unknown, such as rheumatism, chorea, syphilis, the exanthemata. It may be due to mechanical or chemical insults, such as blows, strains, excretory products, alcohol, and atheroma.

AMERICAN JOURNAL OF THE MEDICAL SCIENCES.

June, 1903.

1. Amyotrophic Lateral Sclerosis, By JOSEPH COLLINS.
2. Congenital Dislocation of the Shoulder, By CHARLES G. CUMSTON.
3. A Case of Myelogenous Leucæmia with Several Unusual Features (Absence of Eosinophilic Leucocytes), By CHARLES E. SIMON.
4. The Dermatoses Occurring in Exophthalmic Goitre, By J. N. HYDE and E. L. McEWEN.
5. Notes on the Employment of Epicarin in Tinea Tonsurans and Tinea Circinata, By ARTHUR VAN HARLINGEN and H. K. DILLARD, JR.

6. The Blood-pressure Reaction of Acute Cerebral Compression Illustrated by Cases of Intracranial Hæmorrhage, By HARVEY CUSHING.
7. A Review of Some of the Older Writings on Infant Feeding, By SAMUEL McC. HAMILL.
8. A Case of Gangrene of the Lung Cured by Operation, By D. RIESMAN, A. C. WOOD, and G. E. PFAHLER.
9. Zomotherapy in Tuberculosis, By LAWRASON BROWN.
10. Notes from the Throat Department of the Pathological Laboratory of the Manhattan Eye and Ear Hospital, By JONATHAN WRIGHT.

1. **Amyotrophic Lateral Sclerosis.**—Collins gives the following summary of the pathological examination of a case which was under his observation for two years preceding her death. The duration of the disease was three years: (a) There was uniform disappearance of the ventral horn cells throughout the entire cord, the dorsal region being less extensively involved than the enlargements of the cord. (b) There was degeneration of a zone in the anterior fundamental columns skirting and encircling the ventral horns in the cervical and upper dorsal regions, also the anterior portion of the lateral limiting layers. (c) There was degeneration of a marginal strip of ventral periphery of the cord expanding dorsally against the ventral and lateral border of the crossed pyramidal tract and appearing with a comma-shaped head in the lumbar and sacral regions. (d) There was deformity of the ventral face of the cord in the cervical and upper dorsal region due to a concave sinking-in of the periphery. (e) There was neuroglia proliferation in the degenerative area of white matter and also in the anterior horns of the cord enlargements. (f) There was evidence that the neuroglia proliferation was of longer duration in the clavical region than elsewhere. The degeneration was denser in this region and had caused shrinking of the ventral face of the cord at the emergence of the roots. (g) There was atrophy of the anterior roots. (h) There was evidence of cell degeneration (chromatolysis, plasmolysis, and disintegration) in the hypoglossal nucleus and the nucleus ambiguus. (i) The pyramidal tracts were intact.

4. **Dermatoses in Exophthalmic Goitre.**—Hyde and McEwen call attention to the difference between those diseases in which dermatoses are a usual accompaniment and bear a distinct relation to the history of the disease, and those in which they occur rarely, so that an ætiological relation may be questionable or rejected. Exophthalmic goitre is of the latter class, but though usually unaccompanied by skin symptoms, it sometimes shows dermatoses of the highest importance.

With regard to the essential, as opposed to the accidental relation of cutaneous syndromes with the general pathological state, the authors offer the following classification: (1) Dermatoses which represent purely accidental concurrence with symptoms of general ill health, e. g., patches of tinea versicolor are cited as occurring on the chest surface of a sufferer from pulmonary tuberculosis. (2) Those in which there is a more or less distant relation to the essential morbid proc-

ess. The dermatoses may be directly due to a non-cutaneous manifestation, while this may be dependent upon a causal element in the general disease; e. g., the sudamina of typhoid are the remote outcome of the fundamental morbid process, the sequence of events being typhoid infection, impression on nerve centres, vasomotor instability, hyperidrosis, sudamina. (3) Those in which the skin symptoms are intimately related to the general disease. Examples are the exanthemata and the purpuras of septic infection, the skin phenomena being due directly to the action of the infectious material upon the skin. Four cases of exophthalmic goitre are narrated, the first being complicated with hydrocystoma, the second with telangerectases upon the forehead, the third with a papular itching eruption upon the face and body, and the fourth with an itching eruption upon the lower extremities, accompanied with the formation of large wheals. The last two of these cases may be regarded as presenting the skin phenomena as accidents, while with the first two they were more or less directly connected with the development of the disease.

5. **Epicarin in Tinea.**—Van Harlingen and Dillard conclude their observations as follows: (1) Epicarin is valuable in the treatment of ringworm of the scalp. In a 10 to 20 per cent. tincture, after epilation it acts more rapidly than other remedies in restoring the hairs to a normal condition. (2) In ringworm of the body the tincture is irritating and slow in its action. The ointment acts better, but the ammoniated mercury ointment and other customary remedies are preferable. (3) For favus, epicarin is recommended. (4) For scabies, epicarin, whether as tincture or ointment, is irritating and inferior to sulphur, naphthol, and other ointments ordinarily used.

6. **The Blood Pressure in Acute Cerebral Compression.**—Cushing has found that varying degrees of rapid increase in intracranial tension produce corresponding disturbances in the intracranial circulation and thus cause symptoms of compression. Acute cerebral compression may be divided into four stages according to the degree of circulatory change, each stage having its characteristic symptom-complex.

The underlying symptoms originate in the centres of the medulla, and are only manifested when the degree of intracranial tension begins to approach the arterial tension and anæmia is threatened. When the circulation in the medulla approaches anæmia the vasomotor centre will be stimulated, a rise in blood pressure occurs, and the local circulation is restored. The extent of this rise indicates the degree of advancement of the compression. Beyond a certain point the reaction cannot take place, for the vasomotor centre fails and the respiratory efforts cease. Together with other symptoms a progressive increase in arterial pressure, or a high degree of the same, or one which shows changes from moment to moment, indicates the advisability of early operative intervention. If the symptoms are localizable the site for trephining will also be indicated. If there is generalized compression due

to extensive hæmorrhage and there are no localizing indications, the intracranial tension should be relieved by the elevation of a large osteoplastic flap from one hemisphere or the other with a corresponding opening in the dura.

MISCELLANEOUS.

Picric Acid in the Treatment of Gonorrhœa.—Dr. Francesco Re (*Riforma medica*, April 29th) has found an efficient remedy in the treatment of gonorrhœa in picric acid. A very large number of drugs have been employed of late in the local treatment of specific urethritis, but thus far the results obtained with the use of any of the substances recommended have not improved materially. The acute form still has a tendency to become chronic, and still does the morning drop of discharge recur to show that the cure has not been complete. The author has found that picric acid acts very favorably in the conjunctiva, and in the present article submits evidence that in the urethra also picric acid is very efficient and prompt in its astringent and antiseptic effects. He reports twelve cases of gonorrhœa in which he employed picric acid, and says that the results were very satisfactory and extremely encouraging. An ideal remedy in gonorrhœa should not only act as a destroyer of the gonococcus, but also should antagonize the germs which are associated with the specific germ of gonorrhœa in the production of the urethral inflammation. An ideal antibleorrhagic should also be as non-irritant as possible, and should possess the property of penetrating deeply into the urethral tissues, especially into the lymph channels, where the gonococci usually lodge. None of the remedies hitherto used has all these advantages, and for this reason the urologist has been forced to resort to one or the other substance from time to time in the treatment of a case, as the progress of the disease demanded. Picric acid is a slight analgetic, a powerful antiseptic, and a keratoplastic. Its antiseptic power is manifest against germs of all species, and it does not irritate the mucous membranes if employed in proper dilution. It has, moreover, a very marked tendency to penetrate deeply into the mucous membranes, reaching the lymph channels. The cases reported by the author were all studied bacteriologically from day to day. The secretion was examined before the remedy was applied and the presence and number of gonococci were determined each day as the disease progressed. In this manner the author hoped to determine the action of the drug upon the urethral infection.

The mode of using this remedy was as follows: In acute cases a $\frac{1}{2}$ per cent. solution of picric acid in equal parts of distilled water and glycerin was injected four times daily, by means of a hard rubber syringe. In one case the use of a one per cent. solution of picric acid was followed in a short time by the cessation of all symptoms, in other words, the attack was practically aborted. The author advocates the employment of picric acid solutions from the start, in the acute stage, although in two cases in which he used the 1 per cent. solution in the acute stage there developed a severe itching and burning sensation in the urethra and an œdema of the glans, together with painful and bloody micturition. The discharge increased in amount in these

cases for a time. Iced compresses and a discontinuance of the injection brought about a disappearance of the symptoms described, and the $\frac{1}{2}$ per cent. solution was used after that with impunity. These two patients, the author adds, were those in whom the treatment was more rapidly successful than in any of the others. The author advises, however, as a matter of precaution, to increase the strength of the solution gradually from $\frac{1}{2}$ to 2 per cent. In chronic cases the 2 per cent. solution may be employed at once, and in addition he injected an ointment of 1 or 2 per cent. picric acid in equal parts of vaseline and lanolin, by means of the Tomaselli ointment syringe. The injections were made by introducing the syringe to the urethral sphincter and gradually withdrawing the instrument, at the same time pressing the piston downward to expel the ointment along the canal. The most inveterate cases of chronic urethritis were cured in this manner. The ointment remained in contact with the mucous membrane for a certain length of time and had the opportunity of becoming absorbed. The excess of the ointment was then expelled with the urine. The injections produced a slight burning sensation, but in no case was there any complication.

Duodenal Peritonitis.—Warbasse (*American Journal of the Medical Sciences*, May, 1903) states that adhesions occurring in the duodenal region give rise not infrequently to definite symptoms. There may be pain, dragging upon the various organs, and angulation of the hollow channels. When the adhesions are attached to the gall bladder they may simulate a stone. Sometimes, after an error in diet, the obstacle to the entrance of the stomach may give rise to vomiting. On other occasions there may be a series of changes leading to atony and dilatation. He mentions the case of a man, thirty-six years of age who, some time after a severe attack of fever, began to have heaviness in the epigastrium and pain after eating. He lost flesh; there was evidence of atony of the stomach with diminished secretion and tenderness over the duodenal region. A diagnosis of atonic gastritis and gall bladder disease was made. At the operation the gall bladder was found adherent to the duodenum, omentum, and pyloric end of the stomach. The adhesions were divided and the patient made a complete recovery. Another subject, a man aged fifty-two, had pain in the region of the stomach for five years, which was always worse after eating, particularly after solid food. He had lost weight. The pain was chiefly to the right of the median line. At the operation, adhesions connecting the gall bladder, stomach, and hepatic flexure, were found, which caused angulation of the duodenal pyloric segment of the alimentary canal. These were divided, and pyloroplasty performed. The patient made a complete recovery. The third patient, a woman aged thirty-one years, had suffered for two years with acute pain in the stomach after eating. The patient was treated for gastric ulcer, and extensive adhesions were found between the gall bladder and all the adjacent structures, and the duodenopyloric canal was distorted. The adhesions were divided and the patient made a complete recovery. Warbasse believes that surgery offers relief in these cases.

Book Notices.

More Light on a Dark Subject. A Series of Lessons in Higher Physiology for the Benefit of Parents and Posterity. By Dr. J. R. BAILEY. Chequamegon Press, Ashland, Wisconsin, 1903.

This is one of those works of a class that is becoming increasingly prominent nowadays—an essay for enlightening the general public on the sexual side of nature. Works on sexual science, such as those of Havelock Ellis and Krafft-Ebing, belong to a different class. They are scientific productions throughout, and are, like any other scientific works, addressed to students of the sciences—as students and scholars. There is room for general instruction for the laity, but the task of conveying it calls for great circumspection and good judgment, but more harm than good results. The present little book seems written in a cleanly and earnest spirit, far removed from the lubricious productions of that opprobrium of medicine, the “specialist in diseases of men.” It is not without a tincture of charlatanism in such dicta as the following: “Osteopathy has scored great success in the treatment of this weakness,” and its literary style and grammatical and orthographical qualities are extremely deficient. “Nostroms,” “ap-probrium,” “anomolies,” “errotic,” “persue,” “recepticals,” “vesicals,” “diety,” “an liason,” and “degradation,” are some of the weeds culled from this literary wilderness. Their frequent repetition precludes the charitable idea that they are mere printer’s errors.

An English Handbook to the Paris Medical School. By A. A. WARDEN, M. D., Visiting Physician to the Hertford British Hospital, Paris. With Prefatory Letters by LORD LISTER and Prof. W. W. KEEN. London: J. and A. Churchill; Philadelphia: P. Blakiston’s Son & Co., 1903. Price 2s.

This little work will undoubtedly prove of great service to such physicians as may purpose taking a postgraduate course in Paris. It contains an account of the Faculty of Medicine of Paris; a list of all the hospitals, general and special, with the names of the members of the staff, their residence, and the means of reaching them; accounts of the Pasteur and various other institutes, as well as a list of the medical societies, with their places and dates of meeting. Then follows a diary of the clinical work of the various professors. The museum and libraries are described, as is also the Institute of France.

In the general information will be found among other things the details of medical practice in France and of the Continental Anglo-American Medical Society. This description, together with the fact that the book contains copies of warmly approving letters from Lord Lister and Professor Keen, of Philadelphia, will be sufficient evidence of its sphere of usefulness.

The Art of Living Long. A New and Improved English Version of the Treatise of the Celebrated Venetian Centenarian, LOUIS CORNARO. With Essays by JOSEPH ADDISON, LORD BACON, and SIR WILLIAM TEMPLE. Milwaukee: William F. Butler, 1903. Pp. 7-214. (Price, \$1.00 and \$1.50.)

The present author has taken as the basis of his book a new translation of the famous work of the “noble Venetian” of the sixteenth century. To this he has added an introduction, consisting of Addison’s comment on Cornaro, from the *Spectator* for October 13th, 1711; a short account of the life and writings of Cornaro, full of interesting material and bearing evidence of personal study of not only the writings, but also all available side lights on Cornaro; extracts from Lord Bacon’s *History of Life and Death*, and from Sir William Temple’s *Health and Long Life*; and appendices giving a short history of the Cornaro family, a eulogy on Cornaro delivered on August 10, 1817, in the Royal Academy of Fine Arts, of Venice, and a very interesting essay by Professor Emilio Lovarini, of Bologna, on the villas of Cornaro, who was an enthusiastic student of the fine arts, especially of architecture. The work is also enriched with several classic poems relating to the illustrious Venetian and a series of portraits, including a reproduction of the painting of Cornaro, by Tintoretto, in the Pitti Palace Gallery. We could wish that some illustrations accompanied the architectural article.

Luigi Cornaro was the scion of an ancient and noble Venetian family, a family that, descended from the noble Cornelian gens of early Rome, has held a proud place all through the centuries down to modern times. When this particular Cornaro was eighty-three years old, “he decided to point out what a fatal abuse is the vice of intemperance, and how easily it may be removed and replaced by the temperate habits of life which were formerly universal.” He was led to do this all the more willingly because—to quote an older edition of the work than the one now before us, one “made English by W. Jones, A. B.,” and printed “at the Rose and Crown in St. Paul’s Churchyard, 1704”—certain very intelligent “young persons, having lost their fathers sooner than they expected,” and seeing Cornaro, moreover, hearty and vigorous at the age of eighty-three, called upon him to impart to them a means of prolonging life. It is clear, therefore, that, notwithstanding the excess into which the Venetian people were sunk, according to our author’s jeremiad, they still retained a considerable share of the virtue of filial piety.

Cornaro makes a clean breast of his own former excesses, which, with a naturally bad constitution, had caused him to fall a prey to various ailments which between his thirty-fifth and fortieth years reduced him to so infirm a condition that, like a sensible man, he consulted his physicians, and they, like wise physicians, declared that there was but one remedy left for his ills, “the temperate and orderly life.” This wise man, unlike so many patients, having taken medical advice and accepted it, carried it out conscientiously, with the result that he lived well and happily ever

after, and at the mature age of eighty-three years, when he may reasonably be supposed to have known something of what he was talking about, gave to the world his first public account of how it had been done. This he followed with three other essays, at the ages respectively of eighty-six, ninety-one, and ninety-five. He closed a venerable, useful, and beautiful life at the ripe age of somewhere between ninety-eight and one hundred and three (authorities are not agreed), on April 26, 1566. His good wife survived him and attained almost the same age.

In brief, his rules were: 1. Each man must find out by observation and judgment what particular foods and drinks agree with him individually. 2. He must accustom himself to the habit of never fully satisfying his appetite, either with eating or drinking—always leaving the table well able to take more. 3. He must be careful to guard against great heat and cold, as well as extreme fatigue or excesses of any nature. 4. He must never allow his accustomed sleep and rest to be interfered with. 5. He must avoid remaining for any length of time in places poorly ventilated. 6. He must be careful not to expose himself too much to the wind and sun. In addition, he preserved himself "from those other disorders from which it is more difficult to be exempt. I mean melancholy, hatred, and the other passions of the soul, which all appear greatly to affect the body."

While the precepts inculcated by the author are perhaps much more widely known and acknowledged in the present day than at the time of his publication of them, and while the present tendency of all medical teaching is increasingly in the direction of temperance in all things and an eschewing of all vice on physical, and not merely moral, grounds, there can be no doubt that this work can advantageously find a place in the library of every physician.

A Pocket Book of Infant and Childhood Dietetics, with Directions for the Home Modification of Milk. By A. B. SPACH, A. M., M. D., Instructor in Medicine, Medical Department of the University of Illinois. Chicago: E. H. Colegrove, 1903. (Price, 50 cents.)

This little volume contains directions for the home feeding of infants, with perforated blank leaves for the physician to fill out. There are also directions for making the most important diluents and substitutes for milk feeding for the later periods of infant feeding. The blanks should prove useful to the practitioner.

Transactions of the Obstetrical Society of London for the Year 1902. Volume XLIV. Part IV for October, November, and December.

The forty-fourth volume of these *Transactions* contains the usual number of interesting clinical papers and discussions. Two papers of striking character are Mr. Handley's, on Paratubal Hæmatocele, and Dr. Herman's and Dr. Andrews's, on The Natural History of Dysmenorrhœa. The illustrations are more numerous and better executed than usual.

Plain Hints for Busy Mothers. By MARIANNA WHEELER, Superintendent of the Babies' Hospital, New York, since 1891; Graduate of the Training Schools of the New York Hospital and Sloane Maternity Hospital and Author of *The Baby*. Illustrated by F. M. Miller. New York: E. B. Treat & Company, 1903. Pp. 54. (Price, 35 cents.)

The hints in this excellent little work are certainly plain and helpful, and we hope the busy mothers, for whom it is intended, will have an opportunity to profit thereby. They form an audience difficult to reach and somewhat intolerant of methods of procedure unknown to several generations of their ancestors. We think that mothers not so busy, and of greater intelligence and receptivity, might profit largely by Miss Wheeler's councils, which are based upon the plainest of common sense and are therefore likely, we fear, to be considered either superfluous or impertinent by those to whom the book is especially addressed.

BOOKS, ETC., RECEIVED.

The Principles of Obstetrics. A Practical Manual for the Student and General Practitioner. By STANLEY PERKINS WARREN, M. D., Portland, Me., Obstetric Surgeon to the Maine General Hospital, Consulting Physician to the Maine Eye and Ear Infirmary, etc., etc. Octavo. Profusely Illustrated. New York: William Wood & Company, 1903. Pp. xii-373. Price, Cloth, \$3.00; Leather, \$3.75.

A Manual of Obstetrics. By A. F. A. KING, A. M., M. D., Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the Columbian University, Washington, D. C., and in the University of Vermont; Fellow of the British Gynecological and of the American Gynecological Societies; Consulting Physician to the Children's Hospital, Washington, D. C.; Obstetrician to the Columbian University Hospital; Member of the Washington Academy of Sciences; Fellow of the American Association for the Advancement of Science; Associate Member of the Philosophical Society of Great Britain; Member of the Medical, Philosophical, Anthropological, and Biological Societies of Washington, D. C., etc. Ninth Edition, Revised and Enlarged, with Two Hundred and Seventy-Five Illustrations. New York and Philadelphia: Lea Brothers & Company, 1903. Pp. xxiii-17-622.

A Nurse's Handbook of Obstetrics. For Use in Training Schools. By JOSEPH BROWN COOKE, M. D., Fellow of the New York Obstetrical Society; Lecturer on Obstetrics to the New York City Training School for Nurses; Surgeon to the New York Maternity Hospital, etc. Philadelphia and London: J. B. Lippincott Company, 1903. Pp. xi-13-391. Price, \$2.00.

Una Palabra Sobre La Raquiococainización. Tesis Presentada y Sostenida Ante la Junta Directiva de la Facultad de Medicina y Farmacia. Por MARIO J. WUNDERLICH, Ex-interno del Hospital General, Ex-Redactor en Jefe de "La Juventud Médica," etc., etc. En el Acto de su Investidura de Médico y Cirujano. Guatemala, American Central: Tipografía Sánchez & De Guise, 1903. Pp. 73.

Handbuch Der Geschichte Der Medizin. Begründet von Dr. MED. TH. PUSCHMANN, Weiland Professor an der University in Wien. Herausgegeben von Dr. MED. MAX NEUBURGER, Docent an der Universität in Wien, und Dr. MED. JULIUS PAGEL, Professor an der Universität in Berlin. Achte und Neunte Lieferung. Jena: Verlag Von Gustav Fisher, 1903. Pp. 465-816. Price, 8 marks.

Das Problem Der Syphilis und die Legende von der specifischen Wirkung des Quecksilbers und Jods. Von PROF. Dr. O. ROSENBACH. Berlin: Verlag von August Hirschwald, 1903. Pp. v-78.

Internal Antiseptics in Typhoid Fever. Remarks at a meeting of the Clinical Society of the New York Post-Graduate Medical School and Hospital by Dr. C. AM ENDE. Reprint from the Post-Graduate, February, 1903. Pp. 4.

Miscellany.

Medical Superstitions in Normandy.—M. A. Prevost, in *France médicale*, quoted by the *Revue médicale de Normandie* for May 25, 1903, recounts certain things that he has himself recently observed in a village of about a thousand inhabitants, situated a few miles from Pont-Audemer. This village is rarely visited by physicians, as the inhabitants seem to have no confidence in them. If any one becomes ill, a shepherd is consulted, or a prayer-monger, or a sorcerer. The most renowned of these sorcerers is an old man, eighty-two years of age, who is even consulted clandestinely by the neighboring villagers.

Each of the saints in Paradise is endowed with the power of curing one or more diseases. Each disease bears the name of the saint who has power to cure it; one is "smitten (*tenu*) by such and such a saint." The sorcerer has recourse to prayer. To arrive at a diagnosis, after the symptoms felt have been detailed three or four ivy leaves are macerated in holy water. Each leaf represents one of the supposed maladies, and at the same time it signifies the particular saint toward whom the sorcerer directs himself (*s'oriente*). The leaves are examined at the end of three days; that which presents the greatest number of spots denotes the disease, and at the same time the name of the saint to whom supplications should be addressed. It is then that the sorcerer informs his patient by which saint he is "tenu."

Each saint must be approached in a different manner; but ordinarily it is a matter of reciting a prayer twice daily for nine days (*novena*). Further, the invalid must constantly carry round his neck a written copy of the prayer. The sorcerer, on his part, prays also. If at the end of nine days a cure has not been effected, it is due to the patient's lack of faith. M. Prevost learns from the sorcerer of whom he writes, that he receives no fees; he contents himself with accepting some trifling offerings. M. Prevost has also been able to obtain some information concerning certain therapeutic measures in common use in the village in question. For example:

In order that a new born child may become hale and robust, it is necessary, immediately after the delivery of the mother, to bury the umbilical cord at the foot of a rose bush.

To preserve a fresh complexion in young children, the face must not be washed in water, but the mother should take care to wrap the child in swaddling clothes soaked in urine.

To check the flow of milk, a nursing woman takes nine woodlice grilled in a fireshovel, while the neighbors recite prayers on her behalf.

Tooth ache is treated as follows: an ordinary nail is applied to the gum until blood is drawn, and, after being stuck through a piece of paper on which is written the word *Makaba*, is buried in the chimney.

To banish warts, they are rubbed with any kind of a leaf pilfered from a garden. This leaf is buried in the ground immediately after the rubbing; as soon as it decays, the wart falls off.

Very numerous are the individuals who possess the power of casting spells over their fellows. For example, a peasant having spitefully cut off the tail of a calf at pasture, is now attacked with a varicose ulcer of the leg. It is a spell cast on him by the owner of the mutilated animal. There is no physician in the world able to cure this condition. Only he who has inflicted the injury can remedy it, and he will not.

Insanity in Spain.—Dr. J. F. Sutherland, Deputy Commissioner in Lunacy for Scotland (*Edinburgh Medical Journal*), in his Glimpses of the Madrid Congress, says that so far as is known there are only 6000 lunatics in Spain, or 0.4 per 1000, or a tenth of the ratio to be found in this country [Great Britain]. And although madness is said not to be a malady of Spain, where the brain is seldom troubled, and where speculation, ambition and political passions effervesce like ginger and then are still, these figures are not an approach to the truth. Alcohol has no place in the ætiology; and, strangely enough, syphilis, which is rampant in Spain, is said to be a factor of no consequence, and little is seen of general paralysis. An authority, who analyzed the different forms of insanity, puts mania at 44 per cent.; epilepsy, 11 per cent.; melancholia, 6 per cent.; and imbecility, 6 per cent. It is quite evident from this analysis that, as in Scotland fifty years ago, no count or reckoning is taken of imbeciles.

Cancer Cured by Radium.—The medical circles, of Vienna, Austria, are greatly interested in a report communicated to the Viennese Society of Physicians and read at a recent meeting of the Imperial Academy of Science. The report relates to a case of cancer which was cured by radium rays at the clinic of the late Professor Gussenbauer. The patient, a man of sixty-one years of age, had been repeatedly operated on for cancer of the palate and lip, but with no benefit, and it was declared useless to perform another operation. One physician, however, determined to try the effect of radium rays and treated the afflicted parts by exposure to the rays of radium bromide. The tumors gradually and completely disappeared. A report of a case of melanosa sarcoma cured by the same medium was also reported by another physician.

Official News.

Infectious Diseases in New York:

We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending August 8, 1903:

DISEASES.	Week ending Aug. 8.		Week ending Aug. 1.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles.....	184	7	299	14
Diphtheria and Croup....	288	22	275	38
Scarlet fever.....	106	13	104	8
Small-pox.....	0	0	0	0
Chicken-pox.....	14	0	21	0
Tuberculosis.....	250	162	256	148
Typhoid fever.....	89	12	66	12
Cerebrospinal meningitis..	5	0	0	0

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending August 8, 1903:

CLEARY, PETER J. A., Colonel and Assistant Surgeon. Appointed Brigadier General to rank from August 6, 1903.

GREGORY, J. C., First Lieutenant and Assistant Surgeon. Granted leave of absence for thirty days.

TEN EYCK, BENJAMIN L., Major and Surgeon. Retired from active service from August 3, 1903.

WINTER, FRANCIS A., Captain and Assistant Surgeon. Relieved from duty as Attending Surgeon and Examiner of Recruits, St. Louis, Mo., and ordered to Fort Huachuca, Ariz., for duty.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending August 8, 1903:

BLACKWELL, E. M., Assistant Surgeon. Detached from the *Columbia* and ordered to the *Hancock*.

BROWN, H. L., Assistant Surgeon. Detached from the Naval Proving Ground, Indian Head, Md., and ordered to the Navy Yard, Washington, D. C.

COWAN, J., Pharmacist. Detached from the Navy Yard, Boston, Mass., and ordered to the Naval Magazine, Iona Island, N. Y.

DE LANCY, C. H., Assistant Surgeon. Detached from the *Columbia* and ordered to the *Hancock*.

GRAYSON, C. T., Acting Assistant Surgeon. Ordered to the Naval Proving Ground, Indian Head, Md.

GUTHRIE, J. A., Passed Assistant Surgeon. Detached from the *Vicksburg* and ordered to the *Solace*.

KENNEDY, J. T., Assistant Surgeon. Ordered to the Naval Academy.

MAY, E., Pharmacist. Ordered to the Naval Hospital, Norfolk, Va.

MAYERS, G. M., Assistant Surgeon. Detached from the *Isla de Cuba* and ordered to the *Vicksburg*.

MICHELS, R. H., Assistant Surgeon. Detached from the *Solace* and ordered to the *Wilmington*.

MORSE, E. T., Pharmacist. Detached from the Naval Magazine, Iona Island, N. Y., and ordered to the Navy Yard, Boston, Mass.

OHNESORG, K., Assistant Surgeon. Ordered to the Naval Academy.

REYNOLDS, C. E., Pharmacist. Detached from the *Columbia* and ordered to the *Hancock*.

SPRATLING, L. W., Surgeon. Detached from the *Columbia* and ordered to the *Hancock*.

Public Health and Marine Hospital Service
Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the surgeon general, Public Health and Marine Hospital Service, during the week ending August 8, 1903:

Smallpox—United States			
Place.		Cases.	Deaths.
Alabama—Mobile	July 25-Aug. 1	1	3
California—Los Angeles	July 18-25	1	5
Illinois—Chicago	July 25-Aug. 1	1	4
Illinois—Danville	July 25-Aug. 1	1	1
Louisiana—New Orleans	July 25-Aug. 1	1	3
Maryland—Cumberland	July 1-31	1	7
Massachusetts—Fall River	July 25-Aug. 1	1	7
Michigan—Grand Rapids	July 31-Aug. 1	1	1
Missouri—St. Louis	July 25-Aug. 1	1	2
New Hampshire—Manchester	July 31-Aug. 1	1	2
New Jersey—Camden	July 31-Aug. 1	1	1
Ohio—Cincinnati	July 24-31	1	1
Ohio—Toledo	July 25-Aug. 1	1	1
Pennsylvania—Scranton	July 25-Aug. 1	1	3
Utah—Salt Lake City	July 31-Aug. 1	1	2
Wisconsin—Milwaukee	July 13-Aug. 1	1	14
Smallpox—Foreign.			
Austria—Prague	July 11-18	2	4
Brazil—Rio de Janeiro	June 29-July 5	1	4
China—Hong Kong	July 5-12	1	10
China—Shanghai	July 11-21	1	1
China—Tientsin	July 11-21	1	1
Germany—Bremen	Aug. 1	1	1
Great Britain—Dublin	July 11-18	6	1
Great Britain—Manchester	July 11-18	2	1
Gt. Britain—Newcastle-on-Tyne	July 11-18	4	1
India—Bombay	June 23-July 7	1	28
India—Calcutta	June 27-July 4	1	1
Mexico—Mexico	July 18-25	1	1

Russia—Moscow	July 4-11	4	3
Russia—Riga	May 1-31	24	24
Russia—St. Petersburg	July 4-11	20	3
Spain—Barcelona	July 11-18	17	17
Spain—Barcelona	June 20-July 4	4	4
Yellow Fever.			
Colombia—Panama	July 13-27	7	2
Costa Rica—Limon	July 16-23	9	4
Mexico—Coatzacoalcas	July 18-25	2	2
Mexico—San Luis Potosi	July 13	Present.	Present.
Mexico—Tampico	July 18-25	40	40
Mexico—Vera Cruz	July 18-25	34	17
Mexico—Yucatan	July 15	Present.	Present.
Cholera.			
India—Bombay	June 30-July 7	7	1
India—Calcutta	June 27-July 4	4	27
Plague—United States.			
California—San Francisco	July 19	1	1
Plague—Foreign.			
Africa—Cape Colony	June 6-13	5	4
China—Amoy	June 20	50	50
Daily, estimated.			
Egypt—Alexandria	June 27-July 4	4	1
Egypt—Port Said	June 27-July 4	1	1
Egypt—Tantah	June 27-July 4	2	2
French Indo-China—Tonquin	June 10-23	5	5
India—Bombay	June 23-July 7	178	178
India—Calcutta	June 27-July 4	15	15
India—Karachi	June 14-21	9	8
Japan—Yokohama	June 20-27	2	2

Births, Marriages and Deaths.

Born.

To Dr. and Mrs. Claude L. Wheeler, of Brooklyn, on August 5th, a daughter.

Married.

BISHER—DE POOL.—In New York, N. Y., on Tuesday, August 4th, Dr. P. Bisher and Miss Hattie De Pool.

ELLIS—FROST.—In Newark, N. J., on Tuesday, August 4th, Dr. Leonard William Ellis, of Quebec, and Miss Mildred Coleridge Frost.

HEUMANN—GARDINER.—In Clayton, Missouri, on Wednesday, July 29th, Dr. George W. Heumann and Dr. Kate B. Gardiner.

MC SHANE—BUTLER.—In New Orleans, Louisiana, on Wednesday, July 29th, Dr. McShane and Miss Hattie Butler.

SACHSE—CURTIS.—In Denver, Colorado, on Saturday, August 8th, Dr. O. M. Sachse, of New York, and Miss Pearl Curtis.

WILLIAMS—BARNUM.—In Kansas City, Missouri, on Tuesday, July 28th, Dr. Howard J. Williams and Miss Sarah Annette Barnum.

Died.

AMISS.—In Sperryville, Virginia, on Saturday, August 8th, Dr. William H. Amiss, in the seventy-fifth year of his age.

CAUTHORN.—In Bedford City, Virginia, on Saturday, August 8th, Dr. George T. Cauthorn, in the sixty-fifth year of his age.

CUDELL.—In Cleveland, Ohio, on Wednesday, August 5th, Dr. Adolph Cudell.

DYE.—In Tonawanda, N. Y., on Monday, August 3d, Dr. Dr. George H. Greene, in the sixty-fifth year of his age.

GREENE.—In Marshall, Michigan, on Thursday, July 30th, Dr. George H. Greene, in the sixty-fifth year of his age.

LODGE.—In Waterbury, Connecticut, on Thursday, August 6th, Dr. P. Carter Lodge.

LUETE.—In Cleveland, Ohio, on Wednesday, August 5th, Dr. Ernest H. Luete.

PAPE.—In Hoboken, N. J., on Sunday, August 2d, Dr. Gotthold Pape, in the sixty-first year of his age.

ROLERFORT.—In Newark, N. J., on Thursday, August 6th, Dr. G. W. Rolerfort, in the forty-third year of his age.

SCHLOSSER.—In Gordonsville, Virginia, on Friday, August 7th, Dr. George W. Schlosser, in the sixtieth year of his age.

TAYLOR.—In Streator, Illinois, on Monday, August 3d, Dr. J. J. Taylor.

YARROW.—In Philadelphia, Pennsylvania, on Thursday, August 6th, Dr. Thomas J. Yarrow, in the sixty-third year of his age.

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Original Communications.

RELATION OF THE ANÆSTHETIST TO THE PATIENT AND TO THE SUR- GEON. WITH SOME INTEREST- ING EXPERIENCES UPON WHICH THIS PAPER IS PARTLY BASED.*

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The desire for the ideal is the stimulation to advancement. The ideal anæsthesia may be said to be one so conducted as to produce a featureless narcosis ending with immediate return to consciousness, and absence of after effects, both immediate and remote. While this perfect anæsthesia is not possible with the anæsthetics or methods at present in use, still an approach to it can be realized far more than is usually supposed. Believing that well directed agitation results in the correction of abuses, with this object in view I think the time opportune for the presentation of this paper.

In the beginning of my medical career as a hospital interne what impressed me especially was the lack of instruction upon anæsthesia; in my case, as in that of many others then and since, this knowledge was acquired as best it could. This condition still obtains largely throughout the country, with possibly a few exceptions which simply prove the rule.

Being particularly fortunate in securing an extensive and varied training in an institution where many different methods of doing the operative work were practised, owing to the individual preferences of an extensive and varied visiting staff, I was enabled to give anæsthesia considerable attention in its practical aspects in the use of different anæsthetics and methods of administration, for heretofore there had been a singular unanimity among the entire staff regarding it, conspicuous by its lack of instruction. Owing to my interest and unsurpassed

opportunities I instituted more correct methods of administration, teaching my successors on the staff the means by which I was enabled to secure such generally superior results as featureless narcosis and rapid convalescence, thereby eliciting comment from the visiting staff in general.

The general but by no means universal use in this country at the present time of nitrous oxide as a precedent to ether for general anæsthesia had its inception at that time from me; while not a new method of anæsthesia, it was practically so in this country. Later, nitrous oxide and oxygen was advocated as a general anæsthetic in major work—my experience in variety of major operations and length of time of anæsthesia being superior to that obtained by any other investigator up to the present writing. Still later, as a result of the favorable reports from other investigators, the subarachnoid injection of cocaine was used, to determine its value as compared with our general anæsthetics; my conclusions, early formed, being that this method of anæsthesia has a distinct, though decidedly limited, sphere of usefulness in surgery. This having been, concisely, my experience in the field of practical anæsthesia (of which a reference is appended), it may naturally be supposed that the ethical phases of the subject received also a due amount of attention; it is, indeed, for the latter reason (and it will not, I trust, be attributed to a spirit of egotism) that the foregoing statement has been made.

I am firmly convinced that not until the anæsthetist is fully recognized by all concerned as entirely separate from the surgeon, will anæsthesia ever advance. It devolves largely upon the surgeon to effect this; and if he does not willingly do so, certainly the patient himself, who is becoming alive to the importance of the subject, and who, it should be remembered, is the one most concerned, will ultimately effect it.

When we come to consider the relation of the anæsthetist to the patient we are frequently met with an obviously superficial view of the subject and the assertion that there is no relation whatever between the anæsthetist and the patient—that the patient does not know the anæsthetist—in a word,

* Read before the Medical Society of the Greater City of New York, June 8, 1903.

that he is simply an assistant of the surgeon; for, did not the necessity exist for the operation, there would be no need for the anæsthetist. Very good! but we may go a step further and reply to this shallow contention that without the anæsthesia many lives would be sacrificed and all major work rendered largely impossible. Then again we frequently hear the absurd contention that usage makes it correct; that the surgeon has always assumed the entire responsibility for the operation. Is that any reason for the correctness of this argument? It is exactly this assumption of a responsibility of which he has no right and which should not be expected of him that has delayed the recognition of this important branch of medicine. Usage indeed! The only excuse for some of the most outrageous customs in existence was usage until some one had the courage to object and so correct the existing conditions.

When first Dr. Morton administered ether in the Massachusetts General Hospital on October 16, 1846, who assumed the responsibility? Had this proved a failure would the surgeon have assumed it? Judging from my experience I should say no, and there was no reason why he should; and there is no reason why the surgeon should, since then or now, assume such responsibility.

When operations are contemplated the surgeon is usually first consulted; through the ignorance of the patient and many years of bad custom he assumes charge of the entire operation, instead of informing the patient that he operates and others anæsthetize (it is a physical impossibility for him to do both). Is not this division of responsibility as well as of labor to be desired? Does it not afford the patient added security? Does it not place responsibility upon the anæsthetist which he cannot ignore? Is it not just to the surgeon himself having the assurance of a cooperator of greatest potentiality in the success of his operative work and the patients' return to health? This direct relation of the anæsthetist to the patient means a proper examination by himself of the patient. For, no matter how thoroughly this has been done by others, the anæsthetist owes it to the patient and himself that this examination should be made by himself; since frequently important facts are overlooked. Anæsthetization is still largely an art, all cannot be written in relation to it. The anæsthetist often discovers valuable points in reference to the anæsthesia by such examination. The selection of the anæsthetic and method, which from the nature of the case must be varied, should be largely the anæsthetist's province; for, in many instances in my experience, had I, and not the surgeon, selected the anæsthetic, the patient would have been subjected to less risks.

This direct relation of the anæsthetist to the patient must oblige him to take every precaution during the administration, and also in addition the treatment of shock. It has always seemed to me that anæsthetic and surgical shock are so closely related, the line of demarcation is so indistinct, that it is the duty of the anæsthetist to provide measures and to have the knowledge how to use them, for combating shock, no matter in what form manifested. The anæsthesia finished, the after effects minimized, the subsequent health of the patient must be as intensely satisfactory to the anæsthetist as it is to the surgeon. What happens, the relation of the anæsthetist to the patient being direct, is that he receives what he is justly entitled to and no more—the full credit for his own work and a fee accordingly; it prevents any one, no matter how large or small the operation, of trading upon his position.

As to the relation of the anæsthetist to the surgeon, I realized early in the course of an extensive experience in anæsthetization why anæsthesia occupied such an inferior position—not only here but throughout the country as well—for in spite of the provincial belief entertained by many here, New York is by no means the country. This was simply a question of fee. Any measure having for its object greater safety of the patient and more successful outcome of the operation was heartily indorsed and commended by the profession; but not so a corresponding increase in fee. The old plan applied here. Could not any one give an anæsthetic, even a nurse? Were not the fees fixed for years previously—all for the surgeon, practically nothing for the anæsthetist? Such an effort of the anæsthetist to raise his fee must be suppressed. Who fixed the anæsthetist's fees? Certainly not himself. The belief that any one could give an anæsthetic must surely have been on a par with fixed fees. Are surgeons' charges fixed? No. Well, there is no moral or legal reason why those of anæsthetists should be. Speaking for myself, when asked, my fees are from no charge in appropriate cases to anything the circumstances of the patient can justly afford. I have some considerable personal knowledge of the variability of surgeons' fees. To fix an invariable charge for the surgeon would be as unjust as it would be impossible; the same practice must obtain with the anæsthetist. During the discussion of a former paper of mine before this society one of the gentlemen said in reference to fees: "This subject interests the surgeon very much" (what commendable candor!); "that the usual range of charges was moderate, \$200 to \$250, except where it was an intracranial case, when the surgeon expected to be paid more." Imagine such contentions. Is it ever just—no matter what the

operation—to charge the patient more than he can justly afford? If charges were determined from the nature of the operation, what a pitiable position for the poor patient; but this, fortunately, does not obtain in the profession generally. My experience, and I have been in a position to know, has been that charges by the surgeon depend principally upon the financial standing of the patient. A short time ago I noticed in one of our medical journals the subject of surgeons' charges discussed under the title of "A Plea for Fair Dealing." In this article the writer said that a wealthy patient should not be overcharged simply because he was wealthy. What a poor view of this subject, when we consider the amount of work done gratuitously by all practitioners more or less. The highest ethical standard allows, in my belief, that the medical man is entitled to a maximum fee in every case treated; but in many instances this would be a burden to the patient, and knowing this, the practitioner follows the beneficent plan and his charges are made in keeping with the circumstances of the patient. In a word, *he does not overcharge the rich, but undercharges the poor.* Ethically, responsibility is the same in all cases operated upon; in practice we do not find this so. The operator, from the importance of the patient, labors under a greater responsibility, and he charges accordingly. The same should, and must, obtain with the anæsthetist. Remember, the anæsthetist is from every standpoint upon exact equality with the surgeon; this must be recognized sooner or later, and the signs indicate it now.

I also realized early that to practise anæsthetization at the present day to the exclusion of other work meant either an incapability of practising medicine generally, or if not, then a sacrifice of principles and self-respect, for the so-called patronage of the surgeon. So long as the operator can use the anæsthetist to magnify his own work and minimize that of the anæsthetist just so long will he continue, as he calls it, to give him work. The service rendered seems to be considered in keeping with the principle "any one can give an anæsthetic, even a nurse." But so can any one operate; but the results secured in anæsthesia, as in operation, depend much upon the man doing either. Frequently, in my experience, the patient's physical state has been so poor that only by the variation of the anæsthetic and trying care has the narcosis been maintained, so as to enable the operation to be successfully concluded and the end of the object sought, the subsequent health of the patient, attained. I am quite sure lives have been saved only by the most particular attention to details during the conduct of anæsthesia. I chose the course of self-respect and principles, having received a training I believe in every way on a par with those with whom I have

been associated. I preferred to confine myself to medical work where my individuality was not sunk in that of another. When any agreement to conduct an anæsthesia is entered into by me, it is only when the principles indicated in this paper are subscribed to. This position enables me to express my views unhampered, as a result of which those who intend to practise anæsthesia may do so under different auspices.

Many surgeons lose sight of the fact that the anæsthetist, both by education and training, is their professional equal. They often forget this in their effort to fix the charges for a *confrère's* services without permitting him any voice in the matter. Note that I said "effort." This reprehensible custom, so far as I am concerned, ceased some time ago, and any effort to repeat it always meets with the remedy it richly deserves. The relation of the anæsthetist to the surgeon requires little space for elucidation: The anæsthetist exerts his energies to secure a featureless narcosis; the surgeon his for a successful operation. Both of necessity work hand in hand, the patient's welfare being the chief object sought; having gained this, their relation ceases; the anæsthetist's and the surgeon's relations being direct with the patient. This, in practice, has generally resulted very satisfactorily except where, in some instances, the surgeon inspires the patient, through selfish motives, to hide behind the questionable legal quibble of not being responsible for the liquidation of the services rendered him by the anæsthetist. I have been accused of endeavoring to make anæsthesia of too much importance. Too much importance, no. But I have always insisted on the actual importance of the subject consistently. Can too much importance be given a subject into which life itself enters, as anæsthesia? I leave my readers to answer this for themselves. Were I to mention the experiences encountered during a considerable practice in anæsthetization a respectable sized volume would result. It is not my desire to do this, but to select those which have a bearing upon this paper. These, I believe, will be entertaining as well as instructive. What is most singular, some of these experiences occurred with those who prate so much about ethics—ethics for others but not for themselves. I might add, from communications received from various parts of the country, others have had much the same experiences as myself.

I desire to express my appreciation to those practitioners who, during our co-operation, have demonstrated that they have a proper conception of the importance of this subject.

The experiences here mentioned occurred in each instance with a different operation.

Some years ago I anæsthetized the wife of a

physician who was at the time taking a postgraduate course in medicine in this city. I naturally considered the matter a professional courtesy; no charge was contemplated or made. About a year subsequently the brother-in-law of the doctor, also a physician, during his stay here approached me saying he would like to ask whether I had charged for the anæsthesia, for the operating surgeon in the case had said that he would make no charge for the operation, but that he would have to charge (a sum stated), for my services. As there was a question in one of the gentlemen's minds whether I had charged at all, and, if so, certainly not above a nominal sum, he decided to inquire when the opportunity permitted. I said I was fairly certain (though I would consult my books) that I had made no charge; but when he informed me what had been collected ostensibly for me, I assured him there was no need for me to look further. I was positive. He had always suspected that I had received no sum at all. I replied that he had probably misunderstood the surgeon, who, when he stated the charge, included his assistants. His reply was that the sum was asked specifically for me. I thereupon sent an account to the surgeon, charging a minimum fee for the service rendered. He informed me that he had never received anything for this case, but paid the account. The balance of the sum I preferred to believe had been intended for his assistants. This operator had previously said "it would be a cold day when he ever paid more than ten dollars for anæsthesia." His temperature sense must frequently have changed, as in many instances the sum received for my services in cases where he operated has been decidedly more than that.

In another instance where the narcosis was conducted by me, upon representations I charged the surgeon a minimum fee and sent the account as a matter of professional courtesy to him; through a patient of mine, I subsequently learned that a specific charge had been made for my services in the account sent by him to the patient. This having been paid, I sent a statement to the surgeon for the amount collected ostensibly for me, crediting him with the sum he had paid previously. The return mail brought a check for the balance, with the statement he had forgotten he had paid me anything, and intended sending the amount when received, but it had escaped his memory. He did not explain the interval of a year wherein other sums had been paid.

In a discussion with a surgeon regarding the position of anæsthetist he informed me that, because I received an honorarium, I had no right to expect more than had usually been paid for anæsthesia for years past, namely ten dollars. I replied that I had, in my experience, no recollection of ever having received an honorarium. It seems his remark

was based upon the fact that in an instance of a brother surgeon, in the case where I anæsthetized, I had received a far greater fee than ten dollars. It appears that all above ten dollars was considered by them as an honorarium. I neither desire, nor expect, in any case an honorarium. If I, as a matter of professional courtesy and confidence in any operator, from his knowledge of the patient's circumstances, leave the settlement of my fee to him, I expect him in all honesty to obtain for me the sum that is warranted in the particular case. In this instance he simply did what morally he should have done, secured for me a fee commensurate with the financial standing of the patient. Honorarium has nothing at all to do with the matter. I should like to ask above what sum is the surgeon's fee to be considered as an honorarium. If this is not applicable to the surgeon, it certainly is not to the anæsthetist. Honorarium indeed! Fees of hundreds of dollars have been charged by me in various instances for anæsthetization, which were not only paid, but accompanied with remarks of gratitude from the patient.

As anæsthetist I cooperated with a surgeon wherein the patient was known to me personally. This man was generally reputed to be of the very highest financial standing. At the end of a tedious anæsthesia, my information was that the patient was well to do, and that I was to charge accordingly. I informed the surgeon I would do so, and sent in due time an account to the patient, who, having asked the surgeon in reference to the account, was told that it was outrageous, and that I had "no right or reason" to have sent him the bill at all.

This led to considerable discussion between the surgeon and myself. The patient, being inspired to do so, refused to pay, as I subsequently heard, through the misstatements of the surgeon, who, I learned, had charged the same amount. I informed the surgeon that I held the patient liable for my account and should institute means for its collection. Upon this information he informed me that if I did not take what he offered, he would bring the matter before the "medical society." I told him he could do as he pleased; neither he nor any medical society could make the charge for me. Seeing that I was obdurate, he informed me that my charge was far greater than his; that the patient in reality was in moderate circumstances, and he asked me to reconsider. Upon his word of honor I made a reduction in the charge, he having said his own charge was moderate. I replied that as he was the family physician, his charge for operating, I inferred, was smaller than it would have been had a surgeon unknown to the patient operated. However, being of a peace-loving temperament, I, as I supposed, closed the matter. Recently, I learned through a patient of

mine, who was informed of the entire affair by the patient operated upon, that the matter was simply a deception of the surgeon (who had charged far more than he had led me to believe), having for its object a reduction of the charge to which I was in every way justly entitled. Before closing this incident it might be well to state two arguments that were used by the surgeon against my fixing my own charge. The first was that I had no right to charge more than other anæsthetists. I replied that I no more fixed my charges according to those of other anæsthetists than he did his in accordance with those of other surgeons. I fixed my charge according to myself. His second argument was that as I had not practised anæsthetization as long as others, I had no right to charge more than they. I replied that while, no doubt, others had practised anæsthesia longer than I, still I was certain, skill in anæsthetization, as in surgery, did not necessarily depend upon the time one had practised either; that I knew a *confrère* of his, twenty-five years his junior, who denuded the flap in a perinæorrhaphy in actually two minutes, whereas he required two hours; that in my estimation the other man, though his junior in experience, was the more skillful in practice.

He also said that nurses had fixed charges and that I had no right, no matter what the patient's circumstances, to charge more than from \$10 to \$25. I replied, with all due respect to nurses, "they were not in my class. My class was that of the surgeon, not the nurse." I also reserved the right to vary my charge as I, not he, saw fit.

Is it ever right for one professional man to endeavor to set the charge upon another's services? The most glaring of several examples of this occurred a few years ago. I was asked to administer the anæsthetic in a minor operation, being specifically requested to select the anæsthetic I thought best, but told that I must assume (what I consider is always implied) full responsibility for the anæsthesia. This was agreed to. The narcosis was conducted by me. The patient was a particularly troublesome one, from the tendency to glottic spasm. Note, here was an instance, such as does occur, where the anæsthesia is far more important than the operation. Seeing the operator subsequently, he requested me to send my bill to him to accompany his to the patient. From the nature of the patient's standing, and being in complete ignorance as to the operator's charge, as a matter of courtesy, I sent him my account, which I subsequently learned was far greater than his; but, from the nature of the case, there was every reason why it should be so, though my intention was not purposely to make it so in this instance. Had I been informed as to the charge the surgeon was to make and the particulars as to the patient's circumstances, such a thing as

this would not have occurred. Subsequently, I was subjected to such abuse that I declined to have any dealings whatever with him, he having said that he used to receive ten dollars for anæsthesia, and that I was not entitled to more than double what he received; and that whether I was or not, that was all I should get. He overlooked the fact that in his day the dictum, "any one can give an anæsthetic, even a nurse," held sway to a far greater extent than now. I requested him to send my account to the patient, and said that if he did not, I would. Upon his refusal I sent the account direct. The patient, being inspired, refused to pay. Upon my statement that I would bring legal proceedings to collect the same, the surgeon supposed that this had reference to himself, and invited me to do so; but hastily, when he found that I in no manner considered him at all in the matter, overtures were made to me to submit the matter to arbitration. I refused to arbitrate; my readers can surmise why. I offered, however, to treat with the patient himself, simply upon the merits of the case. I also stated that if the bill, as rendered, upon proper representation of the patient himself to me was not correct, I would consider the matter, but only with the patient, the whole affair being to me one of principle. As this was a matter which had never been legally decided, I concluded that a test would be desirable, not only for myself, but for others as well. I consider a professional service, such as I had rendered, above the level of a trade, and I do not believe, simply because the patient had no dealings with me direct, that he could refuse to pay for such service. After being in the courts two years, I informed my attorneys that any more delays would be refused; that I had been prepared to try this matter immediately it was instituted. "Would I settle?" Yes, but only with the patient, the surgeon not being recognized at all. Settlement with the patient, and at my terms, was agreed upon, and so a complete victory for principle resulted—all I ever contended for.

Is it ever correct for the surgeon to ask the anæsthetist to make his fee a minimum one on the score of the poor circumstances of the patient, and to make no reduction in his own charge? Upon one occasion I administered nitrous oxide and oxygen for an intraabdominal operation, lasting one hour and a half. At the end of the narcosis and operation, the immediate return of consciousness of the patient met with expressions of delight by herself and family. The operator in this case requested that I make a minimum charge, as the patient's circumstances only warranted that. Though the surroundings indicated otherwise, I believed his statement, and subsequently sent an account for a minimum fee and charge for the gases used. Some time afterward, the patient visited me in person to pay

the account and to thank me for the satisfactory treatment she had received, and inquired why my charge was so much less than the surgeon's. I informed her that I was not aware what the surgeon's charge had been, but had assumed it was moderate, as mine had been made so upon his representation that her circumstances could only warrant such. She informed me that she authorized no such statement, and requested that I make a corrected bill, which I subsequently did, charging the same sum as the surgeon had. This was paid shortly after with a repetition of thanks for the kind treatment she said she had received at my hands. I have never been conscious of ever having given one patient better treatment than another—my procedure always having been to give every patient anæsthetized the very best treatment within my power. It is, however, gratifying to know that one's efforts are appreciated. Why should the surgeon object to the anæsthetist receiving a material fee—when he does not pay it, and he *never* does pay it—when viewed correctly.

Is it correct for the surgeon to refuse the anæsthetist information upon which he can make a just charge? No. Yet this has occurred frequently in my experience. It was at first my practice, when sending my statements to the surgeon as a matter of courtesy, to place no charge, suggesting that his knowledge of the patient's circumstances would enable him to arrange the fee. In no instance was more than a minimum charge allowed (evidently they were all poor), and a check for that amount was received. In one such case I communicated with the surgeon to the effect that many of the patients could pay more than a minimum charge, and I expected him to send a check for the balance which I had estimated as seemed to me to be correct. The additional amount was received, with his request that thereafter I make my own charges.

A practitioner with whom I had cooperated frequently, requested that I anæsthetize his patient for the purpose of enabling the surgeon to make an examination. At the conclusion of the séance the doctor informed me that the patient was poor, dependent upon a relative, and that having been at considerable expense, he would appreciate a small charge. I replied that if he said so I would charge nothing. At his request a minimum fee was made. I was naturally surprised at this procedure, as previously my accounts had always been sent to patients direct. I could only surmise that some one had misrepresented my position. A few days later, I was again consulted by the family physician as to whether I would give the anæsthetic to the same patient for the operation, he asking what my charge would be. My reply, the invariable one, was that I could not say unless he informed me as to the correct financial

standing of the patient. His reply was, the patient was in moderate circumstances. Note the difference in the two statements. Before, "no circumstances," "dependent upon others;" in a few days "moderate circumstances" (at this rate, in a few days more the patient might have become wealthy). I replied that if what he had said was correct, I should be pleased to administer the anæsthetic for the sum stated, but I wished it understood that this was upon the representations made. The narcosis was a difficult one, though this was not apparent to a bystander, and only by the greatest attention was the anæsthesia prolonged to permit the operator successfully to complete his work. The patient responded well to treatment for shock, and left the table in a perfectly satisfactory condition. By the purest accident and through different patients of mine, I learned that the patient had abundant means, in a word that an unprofessional advantage had been taken of me. I subsequently received word from the family physician to send my account to the patient if I wished. Being in no haste, he probably feared I had learned of his duplicity; this evidently was of little consequence, providing I was satisfied with the arrangements made. Later, I heard from him again, requesting that I send my account to the surgeon, as his arrangements with the family had been a certain sum for the entire operation. I replied that his arrangements did not, and could not, include my services, and that I would send an account for exactly what I considered the service entitled me to in this instance; as the agreement he had secured from me had been predicated upon false statements, which was also the case in the first anæsthetization in this patient. Subsequently, I received a check something like this: Pay to Dr. S. O. Goldan the sum of ——— dollars for administering anæsthetic to ——— (the patient) for Dr. ——— (the surgeon), signed ——— (family physician.) This was returned with the statement that my account was for so much (sum stated), and would be sent to the family of the patient. This is a typical case for example. It is decidedly questionable whether the patient in this instance ever authorized the statements as to the financial condition. Patients rarely, in my experience, question my charges. If they do, they have the same remedy in the case where the surgeon's charge is questioned (I know of some instances) to treat with me, as with him, direct. It is neither my intent nor my desire to overcharge any one. My position is the same exactly as it always has been and will be. If the patient cannot pay I gladly tender my services gratuitously; if in moderate circumstances, a moderate charge is made; if in affluent financial standing a charge in keeping therewith is made. This is the practice followed by the medical profession in general, and the only cor-

rect one. The nature of the operation, while of some consideration, is a minor one in fixing fees. What applies to the surgeon applies with equal force to the anæsthetist, no more and no less.

An interesting experience regarding fees occurred as the result of the patient sending for me in a contemplated operation. Note, the surgeon followed the correct principle here, but had informed the patient, so she said, to ascertain my charge in advance, lest I might overcharge. I enlightened her as to the importance of anæsthesia, and added that if she intrusted her life to me, she could intrust the fixing of the charge, but I had no objection to stating my fee in advance, when she informed me what her ability to pay was. My charge was agreed to. As she had been led to believe that my charge should be ascertained in advance, I advised her likewise to ascertain what the operator was to charge for his services. I subsequently learned that my charge, which was paid, was slightly more than the operator's, and when he heard of it his chagrin can better be imagined than described.

Here, I might say that, when requested to send my account to the operator, I do so only as a matter of courtesy; this procedure depends upon myself entirely. There is no obligation to do so; but doing so, I see no reason why the charge should be less than it would have been if sent to patient. If the surgeon must, as he erroneously says, pay it, he should ascertain what this is to be in advance, but in order that this charge be just, he should truthfully inform the anæsthetist what the circumstances of the patient are. So far as his knowledge will permit, and usually, he is well-informed.

Another point might be referred to when the surgeon for some personal reason charges less than he ordinarily would. That is no reason why the anæsthetist should do likewise. This is one of the two instances where the anæsthetist's charge can be more than that of the surgeon. The second is where the anæsthesia is of far more importance than the operation. This, as you know, does at times occur. I would conclude by saying that if the anæsthesia is intrusted to me, and having as I believe a correct conception of it in its practical and ethical aspects, then the lesser consideration, the mere commercial fee, must be also. If I am correctly informed by the patient and surgeon, I am confident there would be little exception made to my charges. If the surgeon hinges the matter around the fee, he is himself to blame. When we come to analyze the inferior position the anæsthetist as a rule (there are very few exceptions) occupies, it is the surgeon's fault. The patient and anæsthetist are in no way to blame. My treatment of those with whom I have been associated has been always upon the supposition

that I was honorably dealt with. It is as a result of this that the experiences here cited have been possible. When this was not the case, I never permitted myself to be taken advantage of twice. If I have given an apparently undue space to the material phase of this subject, the exigencies of the case require it. Other aspects of anæsthesia have been treated by me previously in numerous instances.

Since my former paper (Anæsthetization as a Specialty, *American Medicine*, July, 1901) appeared, an appreciable change for the better is noticeable in the recognition of the proper position of the anæsthetist. What is morally right must be materially so. Complete equality ethically, professionally, materially, between the anæsthetist and surgeon, is the only solution for the correction of the abuses whose only right for existence is usage.

18 WEST SEVENTH STREET.

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University Hospital, of Kansas City, Mo.—The University Hospital, of Kansas City, Mo., recently enlarged by the building of a new addition, was dedicated on the 5th instant at 1005 Campbell Street. A large dry goods firm has promised to contribute \$300 annually for the support of a free bed. The new addition is a four-story brick building, 40 by 90 feet, giving the hospital a capacity of about 100 rooms, besides apartments for nurses and employees. On the first floor is a large double reception room, the superintendent's room, clerk's room, drug room, internes' room, laboratory, internes' dormitory, library, x ray room, sterilizing room, laundry, and private consultation room. The second and third floors are devoted to private bed rooms. On the fourth floor there are two operating rooms, a sterilizing room, dressing room with shower bath, lockers, toilet, and lavatories. On each floor there is a dressing room and a complete system of bath and toilet rooms. Electric dry heat, electrocautery, x ray machine, and the giant magnet are in readiness and at the service of all surgeons and physicians sending cases. Each floor has telephone service, and an electric bell connects each room with the superintendent's room.

THE IODINE TREATMENT OF PUERPERAL SEPSIS.*

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The gross pathology of puerperal infection has been most accurately described and graphically pictured for many years; and the application of the scientific methods of investigation which experimental medicine demands shall be observed in establishing a precise diagnosis of all infections, has given us a perfect understanding of the causes of puerperal fever. Yet, and to our humiliation it may be said, as many women to-day die of puerperal sepsis as before the exploitation and acceptance of Listerism.

The pathology and pathogenesis of puerperal sepsis, we believe, are fully understood; but the very fact of this discussion reveals the confusion regarding the treatment of this disease. Possibly, what I have to contribute may be of service in establishing a more successful method of treatment than now generally obtains.

As a first and essential step in the selection of a rational method of treatment must be the recognition of the fact that, with rare exceptions, puerperal sepsis is a type of lymphangitis arising in the uterus, which through the absorbents produces grave lesions in remote organs. The mortality which accompanies it is due, not to changes in the uterus or its annexa, but to the propagation of septic germs at points remote from the pelvis, the general peritonæum, the lungs, the heart, and particularly the kidneys. It has not yet been established that the occasional and intermittent changes which we find in the blood ever cause death. But the mortality attending the disease demands our consideration no more than the morbidity; for the mere preservation of life in a body permanently damaged in its most essential parts is certainly not a triumph of skill.

Were puerperal sepsis, like gonorrhœa, local in its activity, there could no longer be doubt regarding the proper line of procedure. But the local lesions are insignificant compared with those produced in remote organs. Yet the field of origin cannot be ignored, for even though a remote complication, like pneumonia, be properly treated, the persistence of activity in the wound of entrance, the uterus, will allow the supervention of other lesions which may destroy or seriously damage the patient.

We cannot, then, view and treat puerperal sepsis as a local affection only; nor can we ignore the local lesion while treating some one of the distant complications.

It has occurred to me that that method of treatment which secured the sterilization of the original wound and accomplished the absorption by the *infected lymphatics* of a potent yet harmless antiseptic, if at the same time accompanied by such treatment as would promote the eliminative functions, would succeed best.

It is along these lines that I have worked, both in practice and in the laboratory.

Impressed, then, with the futility of performing either a radical vaginal or abdominal operation in this condition, I began, in 1895, at the City Hospital, to curette these infected uteri and to open broadly the posterior cul de sac, packing both with iodoform gauze. I did this at first under the mistaken idea that I should drain away something; but I was struck with the fact that in many, even the worse cases, there was nothing to drain away except serum, and yet the result of the treatment was perfect. I then began the examination of the uterine discharges and of the pelvic contents and will give you the results of my work. The bacteriological work was done in a few cases by Van Giesen and Visman, but chiefly by Jeffries. There have been 37 cases operated upon. In 36 cases streptococci, generally mixed with other germs, have been found in the uterine cavity, while in all the cases streptococci have been found in the serum or lymph or free pus from the cul de sac. I know of no one else who has attempted a similar line of investigation. I consider most valuable the observation that, in every case of puerperal streptococcus endometritis, we find streptococci free in the pelvis, and that in over 97 per cent. of cases they are present in the uterine contents. It would seem that the presence of streptococci in the uterine or pelvic contents alone furnishes proof of streptococcic puerperal pelvic lymphangitis. And those who report cases as septic rarely take the trouble to prove them so by the sole positive test.

Finding, as we did, the invariable cause of the infection, the local results of the treatment were studied. In all cases but one we have been unable to detect a single coccus of any kind in the second dressing, and they were absent at the third dressing in the exception. By our application of massive iodoform dressings we therefore succeeded in sterilizing the pelvis, at least so far as cocci were concerned. What is the explanation of this? Iodoform, as you know, while maintaining its chemical entity as a triiodide of methenyl, has but feeble antiseptic properties. Placed in contact with an open wound in continuity of tissue, the serum tends to break up the iodoform into methenyl and free iodine, and then the chemical shows its power as a destroyer of cocci. But the disintegration is slow, particularly so if pus is present in large quantities. Far different

* Read before the New York Academy of Medicine at the meeting of May 21, 1900.

is it when the iodoform is brought into contact with a serous membrane. The iodoform at once gives up its iodine, partly in obedience to the influence of heat and partly to the chemical action of the blood serum. Local iodism is within a short time produced, and it is this which sterilizes the pelvis.

But we have seen that the absorption of the streptococci and their toxins from the pelvis by means of the lymphatics produces in most cases destructive lesions in remote organs which are fatal in from 7 per cent. to 25 per cent. of the cases. What effect has the iodine in preventing these? It was hardly conceivable that the sudden drop in temperature and pulse which was uniformly seen to follow the operation in uncomplicated cases could be due to the mere creation of a raw surface in the uterus and to opening the posterior cul de sac, which, in most cases, evacuated serum only. I then began a series of investigations to determine this. The urine furnishes the strongest evidence of the rapid absorption of the iodine and of its general circulation. Taking the first fourteen cases as a basis, we found that a strong reaction of iodine was secured in an average of five hours. We found that in certain cases it appeared in two hours, and it is interesting to know that these were cases in which little lymph and no pus were present in the peritoneum, yet the symptoms of septicæmia were marked. In other words, there were grave constitutional symptoms and no apparent local lesions. The effect of iodine upon the blood will be published later.

In all my operations either enteroclysis or intravenous infusion of normal saline solution has accompanied the operation, for purposes of facilitating the elimination of iodine and toxins by the damaged kidneys. In all there have been 37 operations; 27 patients had not been previously operated on, and only one died; while 10 had been subjected to curetting before coming into my hands, and 3 died; thus confirming our belief in the mischievousness of mere curetting in these cases.

But we have found that gratifying as are these results, yet the after treatment of these cases is so technical and consumes so much time that it is difficult to secure for it a very general adoption. The question is, then, cannot this sterilization of the pelvis and general absorption of iodine *through the infected lymphatics* be secured in another manner.

I have for some months been engaged with Dr. Jeffries in certain researches to clear up doubts and show perhaps a simpler method of securing local and general iodism. These investigations are far from complete, but they are so far corroborative of my practical work. For myself the latter is entirely satisfactory and as yet I have seen nothing which creates a doubt as to its efficacy. Not only is the

mortality from this method of treatment much lower than from any other, but the morbidity is certainly less, inasmuch as I know of three patients who have subsequently borne children.

6 WEST EIGHTY-FOURTH STREET.

THE TREATMENT OF PAPILLOMA OF THE LARYNX IN CHILDREN.

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The differences of opinion existing among laryngologists regarding the treatment of papilloma of the larynx in children are rather confusing, and are apt to mislead practitioners whose work may, in great part, be along more general lines.

This statement is made because, not following laryngology as a specialty, I had some misgivings as to the proper practice to follow when circumstances required personal action in the treatment of several patients with this condition.

CASE I.—On February 8, 1898, a two-year-old, robust, male child was brought to me with the history of increasing hoarseness, which began six months before, later developing into loss of voice and difficult breathing. The symptoms of obstructive breathing were similar to those so often seen in cases of diphtheria years ago—that is, before antitoxine became a sheet anchor in its treatment. An immediate "low" tracheotomy was done, which, of course, relieved all distress. After several weeks I decided to do a thyreotomy. Upon opening the larynx a large number of papillomatous growths were seen, which occupied both vocal bands, more particularly the right, and, besides, were somewhat scattered over the surface above and below the cords. The growths were removed and their bases cauterized with glacial acetic acid. Four weeks after this operation we began practising the removal of the tube, but it could be kept out only a few minutes when dyspnoea would become so marked that the tube had to be reinserted. Our attempts at lengthening the intervals during which respiration through the larynx could be kept up, proved failures. I then withdrew the tracheotomy tube permanently and resorted to intubation. My idea in using the O'Dwyer tube was that its presence would exert more or less pressure, which would probably prevent a recurrence and cause absorption of any recurrent growths already present. The tube was removed every few days, five to seven, and reintroduced—this reintroduction seemed to be more imperative each time. Finally, dyspnoea began to manifest itself even when the tube was in place; this was due to the growths spreading upward so as to fill and overhang the upper part of the larynx in such a way as to prevent free ingress of air through the tube. A second tracheotomy then became imperative. Two months later I again opened the larynx and found it fairly choked up with papilloma; these were removed and each base

was curetted and cauterized. From time to time for four or five months after this operation it became manifest that the growths had returned, and I was tempted to try another thyreotomy, but, having become much attached to the little fellow and being fearful of the termination, I desisted. About February 1, 1900, a few days less than two years since the child came under my care, he began to speak in a voice slightly above a whisper with an occasional loud, hoarse word, and on March 1, 1900, the tube was removed, and the patient was discharged one week later. The child has remained free from laryngeal trouble, but his voice is rather hoarse.

CASE II.—On November 27, 1900, a five-year-old boy was sent to me by Dr. Gifford and Dr. Bicknell, with the diagnosis of papilloma of the larynx and the request that I do a tracheotomy. The obstructive symptoms were very positive, and the history of slowly increasing hoarseness, loss of voice and difficult breathing almost clinched the diagnosis; a laryngoscopical diagnosis had also been made. A tracheotomy was done and, remembering my experience with Case I, nothing further was attempted. The child wore a tube until March 21, 1901. He was discharged as cured April 3, 1901.

CASE III.—July 30, 1901, Dr. Gifford and Dr. Bicknell sent me another baby boy, fifteen months old, and requested a tracheotomy for papilloma of the larynx. The history and dyspnoea seemed to make the diagnosis positive. A tube was inserted (low operation) and worn until December 24th. The patient was sent home January 8, 1902.

These children were shown at meetings of the Omaha Medical Society, while they were wearing the tracheotomy tubes, and again after their discharge from the hospital. They have all remained well.

I was induced to report these cases because of an article in the *Boston Medical and Surgical Journal*, April 24, 1902, under the heading Recent Progress in Laryngology, in which a reference was made to a paper by G. Hunter Mackenzie (*Journal of Laryngology*, September, 1901). Reviewing this paper of Mackenzie's it was stated that he "advocates tracheotomy without attempting removal of the growths, the tracheotomy tube to be worn until the disappearance of the papilloma, generally a year or two."

Mackenzie drew attention to the desirability of intralaryngeal operations, but pointed out the difficulty of doing such work thoroughly, especially in children. If return takes place after thyreotomy and removal of the growths, their bases having been cauterized, how much less likely are intralaryngeal operations to succeed when removal must be more incomplete? "A point of some importance for determination is as to the period when tracheotomy should be done, for children with laryngeal papilloma occasionally indicate a tendency to develop a sudden and intense dyspnoea. It is right,

however, to bear in mind that infraglottic papillomata may be present without much vocal alteration, but with considerable respiratory disturbance. Intubation has been made much of, but, upon the whole, the general opinion is that it is unsuitable."

I have taken the liberty of quoting from Mackenzie because his opinions agree absolutely with my experience and observations made independently of his work. At a recent meeting of the British Medical Association, Dr. Greville MacDonald read a paper on The Operative Cure of Laryngeal Papilloma, in which he strongly advocated the intralaryngeal method of removal by means of forceps, preferring Mackenzie's spoonblade forceps. He asserted that even in children he was able to remove papillomata with this instrument by means of the sense of touch alone. Few there are who have acquired such dexterity.

It is well recognized that with patience and care one can occasionally so gain the confidence of young children, even under four years of age, that intralaryngeal operations may be carried out under local anæsthesia, using the laryngoscopic mirror to guide the forceps. Bruns has been successful without the laryngoscope under general anæsthesia (this should never be complete), using the Kirstein spatula and the Voltolini sponge method. He reports having wiped out many papillomatous masses.

Not very much has been written by laryngologists regarding the employment of tracheotomy as a curative method, it being generally referred to as an operation of emergency in cases of suffocation from the blocking of the larynx with papilloma. Professor P. V. Bruns, of Tübingen (*Handbuch der Praktischen Chirurgie*, 1902), in his collection of statistics, has records of 127 children with papilloma of the larynx, of these, 48 were *not* operated upon and 32 died, 28 by suffocation, three were cured spontaneously; 26 were tracheotomized, 7 dying following the operation; 21 were subjected to laryngotomy, of which number 8 were permanently cured; 40 were treated by intralaryngeal methods, of whom 13 were permanently cured. In order that we may have a more extended knowledge of such methods of treatment and their results, let us examine Roseberg's statistics which include those of Bruns, but elaborated and brought nearer to date. One hundred and nine children were subjected to laryngotomy, the operation being carried out 144 times; 11 children were operated upon two times, three children three times and one child four times. In all, 52 of the children were not over four years of age. Twenty died, most of them from suffocation caused by recurrences of the papilloma. There were recurrences in 43 after repeated operations. Forty (36 per cent.) were cured of their

papilloma, among them ten had more or less loss of voice. Eighty-eight children were treated by intralaryngeal methods, of whom thirteen were not over four years of age; three of these died, one from suffocation caused by recurrence. Forty (45 per cent.) were cured, but of this number sixteen were of too recent date to know the final outcome.

Thus we see nothing seems to be known from a statistical standpoint relative to the curative effect of tracheotomy *per se*. A few cases have been reported from time to time, and evidence is accumulating which goes to prove that the operation may be expected to be followed by success. The operation should be performed as soon as obstructed breathing is manifest. To delay invites disaster. Seven deaths out of a total of 26 tracheotomies included in Bruns's statistics is too high a mortality.

Judging from the writings of laryngologists one would suppose that papilloma of the larynx in children was not uncommon. During eighteen months' attendance of one or two hours daily at the leading throat clinics in Vienna, 1884-5, I do not recall having seen a single case of laryngeal papilloma in a young child, and when I question some of my friends in Omaha who do throat work, only the gentlemen who sent me two of my cases seem to have had any experience with the affection in young children. Probably climatic influences may have something to do with the development of the growths. The laryngoscope is an unsatisfactory instrument in diagnosing laryngeal disease among young children; we must, in a measure, depend upon symptoms. Given the case of a child with the history of a slowly increasing hoarseness, followed by slight or marked aphonia and difficult breathing (the history covering weeks or several months), the diagnosis of papilloma of the larynx can be made.

We must be able to exclude foreign bodies and those rare cicatrices following ulceration, either tuberculous and syphilitic, or a sequela of the exanthemata. Other forms of new growths are found in the larynges of children, but they are so seldom seen that they may be excluded. Tracheotomy is the most available remedy for papilloma of the larynx in children; intubation is a failure and the justifiability of laryngotomy is questionable. The general practitioner can make the diagnosis, and a specialist's services are not necessary to supply the treatment.

Scope of Boston Board of Health Enlarged.—The Boston board of aldermen, at its weekly meeting on the 3d instant, provided that the board of health should have control of the consumptives' hospital to be erected at West Roxbury, as soon as the site is decided upon.

REGICIDES; SANE AND INSANE.

By E. C. SPITZKA, M. D.,

NEW YORK.

(Continued from page 311.)

Such considerations impressed the writer in the course of studies made some years ago with reference to *Race in Relation to Insanity*. To his discomfiture, however, a doctrine subversive of any conservative standpoint has been promulgated, which bids fair to become a subject for serious thought on the part of medical jurists. Incorporated in a deservedly well-known manual, it has, through the excellent translation of Dr. Bannister, become disseminated in this country, and been made to serve as a pretext for a most unprecedented proposition of insanity in the last American regicide by another writer.

Dr. Channing, of Boston, has undertaken to propagate this doctrine on this side of the Atlantic and has chosen the case of Czolgosz to exemplify it. Unfortunately, owing to the absence of Dr. Channing from the States at the time Czolgosz was being examined, the government was not able to avail itself of his valuable services, and the consequence is that, on his return, he was compelled to examine the by this time executed prisoner by proxy. In introducing this examination, he naturally points out the shortcomings of the report of the official examiners, and proceeds to instruct them how a thorough examination must be conducted, in order to satisfy the requirements of the new doctrine. A large part of these inquiries was delegated to the Rev. Dr. Briggs; another portion was made through correspondence; and the remainder through Dr. Channing's own interviews of factory foremen, druggists—grateful for the patronage of the deceased—rustic relatives, and other equally experienced observers.

Among the chief discoveries made in the course of the investigation, was the fact that Czolgosz was a misogynist. Notwithstanding the critical acumen which enabled him severely to reprobate the official examiners, Dr. Channing had not read the part of the report in which the prisoner himself made statements fatal to this theory, and had overlooked a part relating to the post mortem examination which would have set the question at rest against any amount of proxy evidence. To quote from this report:*

" . . . The external genitals are normal. . . . There are two flat cicatrices, one 4 mm. in diameter, the other half as much, on the mucous surface of the prepuce about 5 mm. from the corona glandis. The tissues under and about these cicatrices are

* Post mortem Examination of Leon F. Czolgosz. By E. A. Spitzka. *American Journal of Legal Medicine*, Vol. 3, 1902.

not indurated, and the scars are doubtlessly the remains of chancroids acquired at some time previous. . . ."

It should be borne in mind that Dr. Channing who, to make good the shortcomings he alleges the official examiners to be guilty of, presents the hearsay evidence obtained either in person, by proxy, or through correspondence, is the distinguished contriver of the "psychiatric dispensary," a term which might be vernacularized as an insane asylum without the inmates. A medicolegal inquiry conducted by proxy calls for an extension of this institution to a branch medicolegal dispensary. Through such, since personal examination of culprits will have become largely superfluous, diagnoses may be established by letter, and advice or treatment given through the same satisfactory channel. Far-reaching possibilities are herein latent, among which is the furnishing of such advice before a contemplated, as well as after a perpetrated, crime.

This departure from precedent involves so profound a revolution of the entire forensic field that, before following it, one may be permitted to study its practical operation as illustrated in the pioneer case tried and adjudicated under the new form of medicolegal practice and procedure.

The one reason for declaring Czolgosz's claim to be an anarchist an erroneous one, is that, as Dr. Channing (p. 42) states, Czolgosz "did not really know much about what anarchism was."

Had Czolgosz before a board of examiners in reply to that question, resorted to a common subterfuge and answered "I did know it once, Professor, but it has just escaped my memory!" the examiner might well have rejoined, "Young man, young man, what a pity that you, the only person who ever understood the subject, should forget it, and the knowledge thus become lost to the world." For not Dr. Channing, Emma Goldmann, Schilling, Most, or any mortal man has the remotest knowledge of what anarchism really is. To expect Czolgosz to have been better posted would have been asking too much of a novice, whether handicapped by "precocious dementia," or not.

As to this dementia præcox to which, according to Dr. Channing, Czolgosz was drifting, it seems that he was a long while drifting without reaching port; for the learned writer locates the beginning of Czolgosz's voyage in 1898. Czolgosz lived three years in this flotsam stage and, at the end of that time, leaves Dr. Channing suspended in a suggestion of a "possibility that he may have been drifting in the direction of dementia præcox of the hebephrenic form" for that period!

It is true, as Dr. Channing says, that the autopsy record does not militate against Czolgosz's having been insane. The record does not prove or claim to

prove, him either sane or insane. But there is one fact it does prove, unquestionably, and in glaring prominence; namely that Czolgosz was not a misogynist or that his so-called shyness of the other sex had any morbid foundations. Indeed the scraps of gossip collected by Dr. Channing represent Czolgosz as so shy of the human species in its totality that it is difficult to conceive of his having had room for any *plus* to discriminate against the other sex with.

In one place Dr. Channing expatiates on the finely chiselled upper lip of Czolgosz with its "Cupid's bow," and discovers a refined young man with an intelligence above the average; furthermore, he records his impression of a good-humored, straightforward, frank, honest young man. All of this, remember, is from Dr. Channing's impressions of Czolgosz's face.

But, alas! for impressions; his friends Mr. and Mrs. Dyer say: "He was never jolly, but rather stupid and dull-like; had a kind of broken-down look, he never talked to strangers, would sit down all the day, thinking-like, reading a paper and sleeping."

It does seem a sufficiently difficult undertaking for a psychologist to reconcile intelligence above the average, and so expressed in the countenance, with a "broken-down look;" "refined" with "stupid and dull-like;" and "good-humored and frank," with "never talked to strangers." But Dr. Channing has picked out much harder work for himself; the idling slouch, vegetating whether asleep or awake, becomes suddenly transformed into an active hunter, expert in killing hares with either gun or revolver; and again into an ingenious mechanic who takes apart a sewing machine and puts it together again, and is always tinkering and repairing things about the farm.

The rest of the proof presented is of such an inherently conflicting character that the writer is compelled to resort to the "double-column" system, in order correctly to reproduce the "clinical picture by proxy."

p. 12.

(Mr. and Mrs. Dyer.)

" . . . When he was in the saloon he would never even kill a fly; he would brush them off and perhaps catch them and let them go again, but never kill one. . . ."

p. 8.

(Waldeck, C.)

"He was a good hunter. He owned a breech-loading gun and, beginning early in the fall and up to as late in the winter as he could track rabbits, he would go hunting every day. He usually went with a shot gun, revolver, stick and sometimes a bag. If the rabbit was some distance off he would shoot him with his shot gun, if he was near he would use the revolver, with which he was quite skilful. He would

then take the sack and cover one end of the rabbit hole, then with a long stick or sometimes with a fire built at the other end he would drive the rabbit into the bag when he would kill it."

p. 13.

(Channing.)

"The foreman said that he was as good a boy as he ever had, and, 'he never could have done such a thing.' His occupation was that of wire winder, which necessitated a fair amount of intelligence. The foreman pointed out to me on the time books that Czolgosz worked steadily without a break, and while the other men had a good many fines, he had very few. . . ."

p. 32.

"He took his meals entirely by himself. . . . Even if he were invited he refused to join the others."

p. 32

"His not only cooking, but eating it alone was suggestive that he was afraid of contamination or poisoning, and altogether in my opinion indicates that it was part of the change which had come about him as the result of impaired health."

Channing, p. 10.

Jacob C's wife (Leon's sister-in-law.)

"He did not dress well on the farm, but was all ragged out."

Channing, p. 13.

"The only association which I have evidence that Czolgosz was a member of is called by the above name (Order of Knights of the Golden Eagle Society)."

Aside from the natural inference that Dr. Channing ought, in order to feel justified in criticising the experts, to have read their expressed and authentic opinions, he distinctly refers to the official reports. A careful perusal would have saved him from his present predicament; a reperusal at the present time would enable him to realize it; the

p. 15.

"Emil Schilling . . . also took him home to dinner, where he was like one of the family, and sat down and ate the same as any one, but kept very quiet."

p. 16.

(Emil Schilling.)

"He had a red complexion; was healthy looking; a round face. I see on his hands he did not work much."

Channing, p. 12.

Mr. and Mrs. Dyer (speaking of an earlier period.)

"He was very particular about his shoes, brushing them when he came in."

p. 21 (speaking of a subsequent period.)

"He rose usually before 7, washed and dressed himself carefully. . . ."

Channing, p. 16.

Schilling: "He (Hauser) told me that he (*i. e.*, Czolgosz) was a good and active member of the Polish Socialist Society of the labor party."

presentation of the following extracts will even facilitate such realizing.

From report of Dr. Carlos F. MacDonald:

"that he had not suffered any serious illness or injury during his lifetime; that he had never been subject to fits, spasms, or vertigo; that he usually ate and slept well, and that his bowels were always regular. He admitted having had sexual intercourse with women, but denied masturbation or other unnatural practices."

From report of the postmortem examination of Czolgosz by E. A. Spitzka:

"The external genitals are normal, and are unclean with accretions of smegma under the prepuce. There are two flat cicatrices, one 4 mm. in diameter, the other half as much, on the mucous surface of the prepuce, about 5 mm. from the corona glandis. The tissues under and about these cicatrices are not indurated, and the scars are doubtless the remains of chancroids acquired at some time previous. As stated before, there has been a discharge of seminal fluid (?), some of which is still within the urethral passage."

When a young man shuns the company of females—for what length of time we are not told—it is well before jumping at conclusions, to bear in mind that while that young man may do so because of being an onanist, a misogynist or a sexual pervert, he might, and does in many instances, have excellent reasons for so doing; reasons akin to those which justify a burnt child's "shunning" the fire.

When the same young man eats his food separately from the family, it may indeed be because of delusions of suspicion. Yet medical men are not unfamiliar with circumstances leading to the adoption of quarantine solitariness and special dietetics, which are quite compatible with sanity, and which are of far more common occurrence than is paranoia in the adolescent. It is the common, not the exceptional, explanation that ought to be first considered. And if the facts happen to establish concretely the agency of the gonococcus, why fly off in pursuit of a phantom of delusional insanity?

The same applies to the *Peruna Almanac*. The reader acquainted with the urethral record in Czolgosz's case and the fact that he was, as reported by Channing, taking medicines at the time, will find Czolgosz's perusal of that almanac a less mysterious affair, since it announces *Peruna* to be a cure for "catarrh" of all "mucous membranes" particularly the "pelvic." That a temperament like Czolgosz's was impressed by the forecasts laid down in this almanac is equally natural. Witness the following, which are culled from the almanac for the year in question, collated with data from Czolgosz's career supplied by Dr. Channing.

p. 10.

(Bro. Joseph.)

"That he was a good mechanic and always fixing up boxes and wagons. He took a sewing machine apart and put it together again."

p. 9.

(Jacob's wife.)

"He was always fixing up boxes, wheels, and tinkering around."

Witness his pursuit and shooting of his victim.

Peruna Almanac.

(October.)

(Persons born in this month.)
... make inventors of machinery. . . . Have the ability to form definite plans which are carried out with stolid indifference to every obstruction. . . . Have good practical judgment, strong purpose, but uninfluenced by either argument or persuasion. . . . Always moving straight ahead. . . ."

"Had had gonorrhœa and chancroids." (See Official Report.)

". . . Inclined to diseases of the reproductive organs. . . ."

As the presentation of Czolgosz's characteristics varies between the physiognomical extremes of a "Cupid bow" and a sullen shyness, the somatic ones of health and valetudinarianism, the moral ones of gentleness to flies, and Nimrod ferocity—to rabbits, so does the diagnosis of Dr. Channing generously offer a choice of a series comprehending the delusional, affective, impulsive, degenerative, acquired and inherited, not to mention epileptic and gynandric possibilities.

Judging by the identification of Czolgosz's case with the Regis type of regicide or magnicide, Channing assumes the latter to be a demonstrated clinical fact. That "type" is, however, not matured sufficiently to support any novel proposition whatever, as it is in the predicament of rather requiring support itself.

The formulated part of the definition is as follows:

"Regicides are degenerates of a mystic temperament, who, led by a political or religious delusion, at times complicated by hallucinations, think themselves called on to act the double rôle of judiciary and martyr; and under the influence of an obsession that is irresistible, kill some great personage in the name of God, the country, liberty or anarchy."

Collateral propositions state:

First, that the regicide is "by his very nature a *solitaire*, having ordinarily neither accomplices nor confidants, even amongst his nearest intimates."

Second, that regicides are "sick persons fanatized to the point of delusion," and so identically alike, one to the other, that they correspond "trait for trait."

Third, that a noteworthy feature is the exceptionally juvenile age of the regicide.

From the standpoint of the deed the subject falls into three natural parts, chronologically viewed. A past, in which the martyr purpose is supposed to

have developed on a basis of degeneracy; a present, in which the assassin realizes that purpose in a *solitaire* capacity; and a future—if he have such in this world—portentous with the doom of dementia.

It is no agreeable task, in view of the generally high merit of Regis' work, to have to announce so absolute a failure of his definition in each of its three parts as the facts compel. For the past fails of being reminiscently sustained in 43 per cent.; the present, to discover the *solitaire* in 93 per cent.; and the future, to verify the prophecy in 97 per cent. of cases.

The pathological significance of the elements comprised in the definition, taken as a whole, is not to be disputed; but unfortunately their applicability, either as a whole or in part, to regicides is not demonstrable. A brief glance at traditional cases suffices to show that the very regicides whose insanity is admitted on all sides are more remote from the standard definition than those alleged to be unsound, but whose mental integrity has never before been impeached. Take the Abbé Verger, the assassin of Archbishop Sibour. So far was this insane assassin from contemplation of martyrdom and the stoicism involved in its rôle, that never since the Dubarry's day has the guillotine witnessed a more abject picture of death terror and desperate clinging to hopeless chances of reprieve than Verger exhibited. The assassin of Perceval was confident of acquittal, and prepared to join his wife two days after his deed. As to Guiteau, his expectations were most positively, not alone of an enthusiastic outburst of gratitude from the "reunited wings of the republican party," but also of a more substantial reward from Garfield's successor, "made President" by his pistol. This assassin, whose disorder was as pronounced as that of any of his class, had at no time contemplated martyrdom as a contingency. While the same morbid mentality underlying his crime was the basis of the delusional rôle he exhibited on the scaffold, its special features resulted from that mentality's having become directed *after the event* into a new channel, one created by circumstances not contemplated by Guiteau beforehand.

Without reproducing cases cited in former contributions, it may be stated that the nearer a regicide's mentality approaches, and the deeper it penetrates the realm of insanity, the less likely is it to involve a disposition to unselfish martyrdom. On the other hand, the purest instances of altruism of motive and stoic self-immolation of assassins are to be found most remote from the same realm. Exceptions are extremely rare; indeed, I believe that "martyr intentions" are assumed to be general among regicides, sane or insane, rather on a *priori* than on concrete grounds, as it is.

With regard to the general prevalence of the purpose expressed in the term "martyr" used in the definition, figures eloquently demonstrate that if martyrdom is a universal aim, a large proportion of magnicides fail to secure an object which unsophisticated minds might regard as quite easy of attainment.

Between the years 1776 and 1902 inclusive 42 chiefs of State—including under that term sovereigns, presidents, cabinet ministers, regents and governors—were killed, out of 96 such individuals attacked by assassins. In fourteen of the successful, and the same number of the unsuccessful cases, the assassins remained undiscovered; and, thus, over 30 per cent. of the former committed their crimes with impunity. Among the names of unavenged victims are those of an emperor, a regent, a grand duke (of Parma) and four prime ministers. The number of unsuccessful attacks exceeds the number of persons attacked, inasmuch as several were assailed from two to six times. Consequently, the ratio of their fourteen anonymous performers is, of 114 cases, slightly over 12 per cent. However, taken together with the successful cases, the showing is that, of slightly over 20 per cent. of all attacks, the assailants remained unpunished because they remained unknown. In addition to this the chief actors in a number of cases, although identified, escaped by flight. Jury verdicts freed some, while in other cases the inadequate penalty of banishment was imposed.

Deducting fourteen of the cases where assassins remained immune because recognized to have been insane, it is found that of 79 chiefs^a of State, not less than 35 had been at one time or other attacked without having been retributively avenged by law. This startling ratio of over 44 per cent. falls to 29 per cent. when the number of attacks is made the basis of calculation. Thus, more than one-quarter of the assassins of august personages in the last 127 years, by evading the legal penalty, forfeited all chances of enacting the role of "martyrs." It is to be remarked here that their unpunished deeds were committed under circumstances which suggest that precisely the same motives inspired them as animated their discovered, apprehended and punished fellows.

As the doctrine of the assassin's being a *solitaire* asserts his being such "by his very nature," this allegation of so intrinsic a quality demands investigation preliminarily. Let it not be supposed that these considerations are presented on any assumption of a real importance attaching to the singular or plural number of contrivers and perpetrators of great crimes. The magnitude of the undertaking

must strike these alike in either case; the obstacles to be overcome are identical, and the jeopardy is no less for a number than for a single assassin. If any noteworthy difference as regards the reasonableness of the enterprise were to be noted, it was that the absurdity which the single assassin commits *en bloc* is manifested by the compulsory agent of others in installments. The latter is not altogether a free agent as regards the particular undertaking; but he was a free agent when he knowingly swore fealty to the serious obligation imposed on him, as a member of a secret, illegal and revolutionary body. In taking that oath he passed half that distance that separated him from becoming an assassin which the assassin on individual responsibility covers in one step. That the latter may even evince more cautious weighing of chances, more deliberate meditation, and also more practical wisdom than the *sociétaire*, is among the conceivable possibilities.

If it is urged that the assassin on individual impulse must be the greater fanatic—which is generally speaking a reasonable assumption—it is not of universal application. Much depends upon the race of the assassins. Where assassination is looked upon in a favorable light, where clanship and loyalty to chiefs or organizations are instinctive virtues, there masses may act as individuals, there dozens may be fired by a fanaticism as intense as that which animates the fiercest of individual zealots, and there the secret may rest with partners as inviolate as it reposes in the solitude of a single mind. The assassination of Archbishop Sharpe, the Earl of Leitrim, Lord Mountmorres, Minister-Regent Prim and the Kansas representative, White, are familiar or recent examples.

To decide the *solitaire* question beyond peradventure is one of the simplest of procedures. A list of unexceptionable and pure cases of regicide shall be submitted to a scrutiny determining the majority or minority sustaining, or failing to sustain, the proposition, in the sequel. In the same way the list might be gone over and parallels established everywhere leading to the irresistible conclusion that one of the most trivial discriminations is that between singleness and partnership in knowledge of an assassin's plans. To separate these offenders on such a basis would be to tear asunder natural groups based on essential and fundamentally important facts, such as motives and the social and educational status of the criminals.

A careful review of their own cases should convince the regicide abnormity advocates of the double fallacy of the *solitaire* dogma; its first fault being that it is not sustained by facts; the second, that if it were sustained by facts, it would not have the significance claimed for it. Of the really insane whom those advocates name, Ravallac and Meyers,

^a In three cases no information regarding the assassin's fate was available.

and of the sane whom they also name and strangely enough range in a common group with these, Bresci, Chastel, Clement, Orsini, Poltrot, Sand, Staps and Suleyman were not single in the knowledge of their purpose before the fact. For Ravailac had confessed his intent to a priest, and Meyers' planned attack on President Hayes was frustrated through his revelation to a detective, under delusional mistaken identity. But a few months ago the project of a lunatic to assassinate Mr. Smith, of the United States Treasury Department of Chicago, leaked out and put the authorities on guard. As to the notorious *sociétaire* status of Bresci and Suleyman, it is not necessary to lose a word, nor does the writer wish to repeat what is to be found in former communications by him as to Sand and Staps. That Poltrot bragged of his design to kill the Duke of Guise is to be found mentioned in any larger handbook of French history.

Were further illustration of the uselessness of the *solitaire* criterion required it would be furnished by such cases as Booth's. Booth certainly represents the typical regicide, if any case in modern history does. But if there is one fact most positive in the entire range of regicide history it is that he was a conspirator and not a *solitaire*. It is not, however, necessary for the leader of the "regicide abnormality" propaganda to cross the Atlantic to discover *démentis* of his doctrine; the Orsini case occurred near enough home, and precisely the same number of conspirators were apprehended in it as were executed or killed in flight in connection with the Lincoln tragedy. Across the Rhine occurred the Niederwald *attentat*, of whose trio of conspirators one, Kuchler, practically duplicated the *solitaire* Hodel. And, as if to emphasize the irrelevancy and valuelessness of the *solitaire* criterion from every point of view, positive and negative, it so happens that of all the Continental anarchists, the one whom there are better reasons than are usually stated for considering to have been of abnormal mentality, Rupsch, was a member of this particular conspiracy. Widely as he departed from the *solitaire* character, he strayed, if possible, even further from the martyr ideal; for it was Rupsch who "split" on his comrades to save his own skin; and, again, Rupsch, who claimed to have frustrated the intended holocaust at a critical⁸ moment, in order to strengthen his claim for executive clemency—which he accomplished—whereas, the sane Reinsdorff and Kuchler realized the martyr aspiration.

The roster underlying this special branch of the analysis has been rigidly purged of anything which might furnish grounds for technical, or even finical,

exception takings. The victims were exclusively gubernatorial or ministerial magnates—that is, rulers; regents, royal princes, governors and cabinet ministers; thus assuring the status of their assassins as true magnicides. In order to obviate the raising of the "false regicide" question, only those cases figure in which the serious intent of the assassin was proved by that most unquestionable of demonstrations, the death of the one assailed.

On a surface view the cases appear in two groups:

A. Where one person alone acted *propria manu*.

B. Where more than one person was actively engaged in the assault proper.

Group A.

Anviti, Ministerial Confidant of the Duke of Parma.

⁹Berri, Duc de, Prince of the Bourbon Blood.

Carnot, Sadi, President of France.

Canovas de Castillo, Spanish Premier.

Catardji, Roumanian Premier.

Danilo, Sovereign of Montenegro.

Elizabeth, Empress of Austria (Consort).

Ferdinand Charles II, Sovereign of Parma.

Goebel, Governor-elect of Kentucky.

Humbert, King of Italy.

Hussein Awni Pascha, Minister of War, Turkey.

Kamtcheff, Minister of Education, Bulgaria.

McKinley, President of the United States.

Prim, Marshal, Minister-Regent of Spain.

Rossi, Count, Papal Premier.

Sipiaguine, Russian Premier.

Stambuloff, Bulgarian Premier.

Group B.

Alexander II, Emperor of Russia.

Abdul Asiz, Sultan of Turkey.

Baltscheff, Minister of Roumania.

Kapodistrias, Minister-Regent of Greece.

Loule, Portuguese Premier.

Lincoln, Abraham, President of the United States. (Assailed simultaneously with members of his cabinet.)

Michael, Sovereign of Servia.

Paul I, Emperor of Russia.

In 16 cases the same number of singly-acting persons had been the assassins. In 9, the aggregate engaged was one of 47 individuals, as officially established. If the 2 cases of the Russian Emperor Paul I and the Turkish Sultan are excluded, as not assassinations in the conventional sense, but rather Camarilla murders, the number of many-headed *attentats* sinks to 7, and of the

⁸One of the executed persons cannot truthfully be included among the actual conspirators in the Booth matter.

⁹Whether through "an irresistible obsession" is not stated.

⁹His son-in-law, Ferdinand Charles II of Parma, was also assassinated over thirty years later, and hence figures in the same list.

participants to 34. The ratio of *sociétaires* to solo assassins is practically as 2 to 1.

While this alone suffices to dispose of the question whether the regicide is "by his very nature" or by any other, a *solitaire* or not, inasmuch as that "very nature" does not appear to have been evidenced in two-thirds of the assassins, the results of a further scrutiny which will be submitted in connection with further shortcomings of the regicide formula, reveal that this rather understates the full extent of the exceptions to the *solitaire* rule.

A glance at the list of 7 associated assassin groups and 16 solo perpetrators shows that, of the former, already excluded as they are, 4 were moved by political and idealist, and one each by dynastic, vindictive and venal motives; while of 14 of the latter—2 being excluded, as the assassins escaped investigation by remaining undiscovered—2 were hirelings and 4 were animated by vindictive motives.

HIRELINGS WERE THE ASSASSINS OF THE FOLLOWING:

Catardji,
Goebel.

VINDICTIVE ASSASSINS
KILLED THE SUBJOINED:
Danilo,
Hussein,
Ferdinand Charles II,
Kamtscheff.

Of the 8 remaining after the exclusion of the above egoists, the assassins of Humbert and Prim are to be excluded and transferred to the group of multiple conspirators, inasmuch as 11 passive accessories, 3 of them at the fact, were discovered in the former, and 3 are known to have co-operated in the latter case, although escaping apprehension at the time. The assassin of Sipiaguine was proved to have had partners in knowledge before the fact; therefore, while not placed with the conspirators, Baltschaneff is excluded from the *solitaire* column.

The writer believes that, ordinarily, it would be thought a most unwarrantable procedure to assume such a problematical thing as a secret being hidden in a man's bosom, to be affirmatively established. How much more bold must appear the asserting this of members of secret societies whose policy includes magnicidal action; whose rules not only impose secrecy on their emissaries and agents, but who also furnish instructions designed to teach the latter how to baffle governmental inquisitions and conceal their affiliations?

Three of the handful left as a "*solitaire* squad" would rightfully be mustered out in this count, and a fourth would follow on two counts, that of having made confidences, besides being a member of a secret sect. Yielding, however, this contention as it stands, the fact remains overwhelmingly

demonstrated that at a most liberal estimate—that is, one favoring the regicide abnormity advocates, only 5 out of the 23 magnicides are known to have been committed under circumstances and by persons whose character did not grossly conflict with the terms of the definition which those advocates endorse and employ.

To be continued.

Our Subscribers' Discussions.

A SERIES OF PRIZE ESSAYS.

[Questions for discussion in this department are announced at regular intervals. So far as they have been decided upon, the further questions are as follows:

XXV.—How do you treat delirium tremens? (Under adjudication.)

XXVI.—How do you treat "habitual abortion"? (Under adjudication.)

XXVII.—How do you treat paraphimosis? (Answers due not later than September 10, 1903.)

XXVIII.—What do you rely on in the diagnosis of small-pox in the popular stage? (Answers due not later than November 10, 1903.)

Whoever among our subscribers (with the limitations mentioned below) answers one of these questions in the manner most satisfactory to the editor and his advisers will receive a prize of \$25. No importance whatever will be attached to literary style, but the award will be based solely on the value of the substance of the answer. It is requested (but NOT REQUIRED) that the answers be short, if practicable, no one answer to contain more than six hundred words.

Only subscribers to the NEW YORK MEDICAL JOURNAL AND PHILADELPHIA MEDICAL JOURNAL (including regular and volunteer officers of the Medical corps of the United States Army, Navy, and Marine Hospital Service, commissioned or under contract) will be entitled to compete, and all persons known to be engaged in medical journalism are disqualified. This prize will not be awarded to any one person more than once within one year. Every answer must be accompanied by the writer's full name and address, both of which we must be at liberty to publish.]

The prize of \$25 for the best essay submitted in answer to question XXIV has been awarded to Assistant Surgeon W. C. Rucker, of the U. S. Public Health and Marine Hospital Service, whose paper appears below.

PRIZE QUESTION NO. XXIV.

THE TREATMENT OF THE SUMMER DIARRHŒA OF CHILDREN.

By W. C. RUCKER, M. D.,

ASSISTANT SURGEON, UNITED STATES PUBLIC HEALTH AND
MARINE HOSPITAL SERVICE,
BOSTON.

In treating the summer diarrhœas of children, first determine the character of the diarrhœa, its cause, and the length of time it has acted. It is not possible to draw a definite line between the different classes of cases, but it is best to have a working classification and to determine into

which of these the case in hand falls. This will often determine the cause and indicate the treatment.

The writer considers his cases in four classes, as suggested by Booker: I. Dyspeptic. II. Inflammatory diarrhœa with predominant toxæmia. III. Predominant inflammatory diarrhœa with systematic infection. IV. Chronic.

The first group is characterized by mild diarrhœa and lumpy, acid stools, which vary in color from apple-green to chalk-gray or sepia. The temperature is not high, 38° to 39° C. (100.4° to 102.2° F.), and there is slight abdominal pain and distention. Thirst is proportional to the diarrhœa, and the appetite is lost. These cases are of brief duration, and are readily amenable to treatment. If neglected, they may pass into one of the three succeeding classes.

The cases of this group are functional in character and may be due to dentition, excitement, or exposure to extremes of temperature on the part of the child, or to faulty dietary, incorrect mode of life, or pregnancy on the part of the mother. The most prolific source of trouble lies in the food. Injudicious dietary is the cause in nine cases out of ten; therefore withdraw all food for twenty-four hours and give the bowels a rest. Remove any irritating matter present by the use of calomel or castor oil (the latter is the best if there is not much vomiting), and then give full doses of one of the bismuth salts, preferably the subgallate. To make up for the large amount of water which is passed in the fluid stools, give plenty of cool sterile water, or egg water, made by mixing the white of one egg with a pint of water and straining through muslin, and then adding a pinch of salt and a little milk sugar. If there is much prostration, give brandy and water. It is never contraindicated in summer diarrhœa.

As soon as the stools are normal, allow more food, but do not let the child return to the incorrect dietary responsible for its diarrhœa. Careful attention to the food and its administration is the most important item in the treatment of all these diarrhœas.

In the second group there is diarrhœa plus toxæmia. The trouble may appear gradually, the fretfulness, fever, and diarrhœa slowly increasing; or the onset may be sudden, with high fever, severe diarrhœa and vomiting, and marked nervous symptoms. There are numerous watery, pasty stools, at first acid in reaction, later alkaline. The more watery they are, the more severe the attack. The child's features are pale and pinched, the eyes are sunken and surrounded by blue rings, the lips are dry and scaly, and the

tongue has a fiery red edge and a central coating. Emaciation may be extreme, and vomiting is early and persistent. The temperature is high, with morning remissions, and the pulse is rapid and irregular. The predominating feature is the toxæmia.

As before, remove the source of irritation with calomel or castor oil. Take a sterile soft rubber catheter and with a fountain syringe wash out the large bowel with about a quart of normal saline solution. If this is done slowly, much water is absorbed, and that which is not carries much offending material from the bowel. This should be done two or three times a day. To check the vomiting, stop all food and wash out the stomach. Give plenty of cool egg water solution. To reduce the temperature and refresh the patient, give frequent sponge baths. It is well to administer some intestinal antiseptic, such as sodium salicylate, and as soon as the movements become normal, give subgallate of bismuth in full doses.

In the third class there is much bowel inflammation, and the stools are very slimy and frequent. After the first day they are small in amount and without offensive odor. Their passage is accompanied by considerable pain, and they usually contain blood and shreds of bowel membrane. The toxæmia is severe, and there is a marked tendency to bronchopneumonia and nephritis. The diarrhœa may become chronic, and exacerbations and relapses are frequent.

In this group the general treatment as regards dietary and general hygiene is the same. For the tenesmus give rectal injections of starch and laudanum. To check the appearance of blood in the stools, wash out the colon, early, with water at 40° C. (104° F.), later, use a solution of tannic acid. Opium is required internally, but should not be given early. Later opium as well as bismuth is of great value. Children who are old enough to take pills do well on ipecac, a grain and a half, coated with salol.

The chronic form includes those cases in which there has been a subsidence of the acute symptoms, but the stools are still abnormal in character and frequency. They are offensive, of a greenish cast, and contain small specks of blood. Flatulency is usually present. The appetite is capricious, nutrition steadily fails, and the child takes on the appearance of great age and sinks into an apathetic condition in which it is liable to be carried off by some intercurrent affection.

This form is most benefited by the bracing air of the seaside or mountains. Regulate the dietary carefully and promote general nutrition by inunc-

tions of cod liver oil or unsalted butter and the internal administration of one of the less irritant iron preparations. To improve the bowel tone, flush with tannic acid, 1 to 500, twice daily. If this is painful, precede it with about 200 c. c. (about six fluid ounces) of starch solution containing two or three drops of laudanum.

In all classes of cases, keep the child in bed, clothed in soft, loose flannel; allow plenty of fresh air, and prevent irritation of the buttocks by frequent washing and the use of a bland ointment; above all, rigidly regulate the diet.

Dr. J. Reynolds Patton, of Fairfield, Vt., says:

The following may be mentioned as the chief causes contributing to this affection, operating sometimes singly, but often two or more of them in unison: 1. Improper ingesta. 2. Internal fluxion, caused by the cool air of night checking surface action which has been extreme during an excessively hot day. 3. Intense prolonged atmospheric heat. 4. Specific, such as microbes, ptomaines, etc. 5. Excessive excretion of bile. 6. General strumous diseases.

The treatment may be outlined thus: 1. Preventive. 2. Hygienic and dietetic. 3. Therapeutic.

By the following measures the prevention might be accomplished somewhat, and an excuse offered for referring to the truism that it always consists in avoiding the causes: 1. Improper ingesta—by the substitution for continued cow milk diet poorly prepared and administered, of one less prone to putrefactive fermentation, such as broths, prepared food, expressed meat juice, and peptonized milk. 2. Internal fluxion—by approximating the day and night temperature in a given case to as great an extent as the conditions leave possible. 3. Intense heat—(a) removal to mountain or coast towns or country districts north of the fortieth parallel; by (b) the artificial reduction of temperature in living apartments by introducing cooler air from iced or artificially cooled inclosures by means of the flues used for heating in winter. 4. Specific causes—by thorough sanitation, especially just before the commencement of the hot term, and by good diet kept as well sterilized as possible. 5 and 6. Irritation of bile and strumous diseases—by proper systemic treatment. In addition much good would result from prohibiting the sale of the so-called antidiarrhoeal preparations which are strongly narcotic and astringent, and which in the hands of misguided parents frequently do harm to the extent of converting a mild elimina-

tive attack into a most serious affection, such as the one here considered or ulcerative ileocolitis.

In the active treatment of cases the preventive measures mentioned must be kept in mind, as they are curative also.

Dietitic and hygienic items of treatment are very important, but do not admit of being readily summarized.

The indications for treatment are: 1. To empty, cleanse, and render aseptic the alimentary canal. 2. To check putrefactive decomposition. 3. To re-establish normal digestion. 4. To treat concurrent symptoms, such as too profuse and exhausting discharges, pain, tenesmus, and restlessness. 5. To maintain tonicity of the system, especially trophic and circulatory. 6. To treat complications and sequelæ.

The agents mentioned are those forming the basis of treatment, the items of which have to be greatly modified in individual cases. To meet the first indication, (a) withhold all food for from twelve to twenty-four hours. (b) Employ gastric lavage, free drinks of warm water, or a mildly emetic dose of ipecacuanha, in case the stomach contains undigested food. (c) Give calomel, one tenth to one fourth of a grain, with sodium bicarbonate, half a grain, every twenty minutes for from six to ten doses, following this in four hours with castor oil or sodium phosphate. (d) By means of a soft rubber tube irrigate the colon (the hips of the child being held well up) with from one half to two pints of solution, warm in most instances, but cold if the rectal temperature has reached 104° F. Repeat the process, usually several times during the first, and at least once during each subsequent, twenty-four hours of the attack, adding an antiseptic to the solution, such as boric acid, half a drachm to the pint. To further the second indication, which has been well started by the foregoing, give bismuth subgallate or salicylate in combination with salol and minute doses of calomel, changing the proportions as indicated by the character and frequency of the stools, but sometimes employing the bismuth or salol in doses much greater than those commonly taught, as of the first, two, and of the second one drachm in twenty-four hours to a child of one year.

In cases that seem to be almost solely due to food which may be termed infective, the substitution for the bismuth and salol of the combined sulphocarbolates of calcium, sodium, and zinc will be found advantageous. The third indication is met by the means previously mentioned and the careful administration of small, gradually increased quantities of well diluted peptonized

food, given after the stomach has had an interval of rest. The fourth indication demands opium, alone or in suitable anodyne combination. The fifth requires the best old brandy and intracellular injections of saline solution. The brandy and opium combine well, thus:

R Tinct. opii deodorat. ℥ ii to iv;
Brandy f℥i

For a child of one year. One half to one teaspoonful given as indicated.

The opium may often be best used locally in the form of the tincture applied on hot compresses to the abdomen for pain and peristalsis, and introduced into the rectum for tenesmus. The following is a good rule whereby to govern the extent to which opium is used in these cases: Never cause narcosis; never push it if the temperature is increasing, nor lessen by its use the frequency of the stools more rapidly than their character improves. The infusion of saline solution must be governed as to amount and frequency of repetition by the demand for blood pressure.

The extreme temperature seen in choleric cases is best met by sponging with cold water or alcohol.

Complications, such as cerebrospinal symptoms, ileocolitis, etc., must be watched for, and, when found, promptly and properly treated.

Dr. David E. Wheeler, of Buffalo, writes:

Most if not all the summer diarrhœas of children are due to food improper either by reason of its composition or its contamination by microorganisms. They are therefore preventable, and prophylaxis must be considered a very important aspect of treatment. For prophylaxis three principal points present themselves to our attention.

The first is to avoid overfeeding. Digestion is less active during the warm months than during the rest of the year, and children should at that time receive less solid and more water in their food.

The second point is scrupulous cleanliness in the preparation of infant food and in the care of the utensils used for infant feeding. This, while advisable at all times, is especially important in summer.

The third point is to avoid the aggregation of large numbers of infants in one room or even building. It can hardly be doubted that summer diarrhœa is communicable, and where many children are kept together in asylums or hospitals a high mortality from intestinal disorders may be expected, no matter how great the skill and care exercised in their maintenance. In private practice a child affected with summer diarrhœa should

be isolated as far as practicable from other small children.

The disease once established, the treatment may be summed up in two precepts: First. Give a cathartic. Second. Don't give milk. The cathartic empties the intestines of fermenting, irritating, undigested food and removes many, but of course not all, of the pathogenic microorganisms. Digestion and absorption of solids is in these cases practically arrested, and if any form of milk is given masses of undigested curd will be passed through the gut and feed, not the patient, but the pathogenic organisms in the alimentary canal. No food is better than food which will not be digested. Children stand virtual starvation surprisingly well if only sufficient water is absorbed, and when the stomach and bowel have recovered by rest, the patients rapidly regain the weight lost during the period of low diet. To empty the bowel with a cathartic of one mass of fermenting food and at the same time supply the material for the production of another equally toxic is illogical in theory and detrimental in practice. By continued administration of milk summer diarrhœa may be indefinitely prolonged.

While the summer diarrhœas present all degrees of severity and will require all degrees of rigor in treatment, for convenience in description the treatment may be divided into that for: A. Those in which vomiting is slight or absent. B. Those in which vomiting is severe and persistent. In the former class of cases castor oil is the best form of cathartic, and a full dose should start the treatment. Castor oil not only empties the whole bowel, but has an astringent and soothing after-effect on the congested or inflamed mucosa. If the castor oil is vomited, use calomel.

In acute cases with very frequent movements, especially if of a foul odor, the cathartic should be supplemented by irrigation of the colon. Irrigation may be needed as often as three times in the first day and thereafter once a day as long as the severe symptoms persist. A gallon of normal salt solution should be used at each irrigation. It is designed not only to wash out the colon, but also to restore fluid to a circulation depleted by watery discharges. Ordinarily the temperature of the irrigation should be about 90° F., but if there is much fever it should be cold, while if the temperature is subnormal the irrigation should be hot—105° to 110° F. In long continued chronic cases the bowel irrigation may be used in a somewhat different way and to meet slightly different indications where much mucus is passed in chronic cases, especially if blood-stained, astringent solutions should be used, not only to free the

lining of the colon from sticky mucus, but also to directly medicate its walls. Care must be taken not to continue them too long, as they may have a decidedly irritating action and keep up the very condition they were designed to check.

Bottle babies whose stomachs are not sufficiently deranged to prevent the retention of food may be fed either from the start or after a few hours' rest for the stomach. The feedings should consist of whey, albumen water, or one of the cereal waters. Whey is best in mild cases. Albumen water is best for older children who have been perfectly healthy up to the onset of the diarrhoea. It cannot always be tolerated, especially by children under six months, but when well borne it is one of the most nutritious of the easily absorbed foods. The cereal waters are the most generally applicable, but the least nutritious. They may be made of wheat, barely, or rice flours. Dextrinizing the cereal waters by the addition of an amylolytic ferment is advantageous, especially for children under six months or where the case is prolonged.

The intervals between feedings should be as long as those suitable for the child in health or longer. They should never be shorter. The feedings should come at regular times.

As the case progresses beef juice or beef, mutton, or chicken broth may be added to the dietary, given either alone or mixed with cereal water. If the case is of any duration it will be necessary to change from one food to another, as infants soon tire of any food other than milk. Beef extracts or predigested beef may also be used, but are far inferior in nutritive value to the home preparations. When giving any food rich in albumen it is necessary to watch for signs of proteid decomposition in the stools. This will be shown by the unmistakeable odor of putrefaction. Such a condition indicates a repetition of the cathartic and a purely cereal diet.

Any form of milk must be rigidly withheld until the stools are normal or nearly so both in frequency and composition. They should be daily inspected by the physician, and as fresh a specimen as possible should be examined, for even a normal stool may turn green if kept many hours—especially in an institution where there are many children suffering from diarrhoeal complaints. If the infection is not very severe and milk is withheld from the first, it is usually only a few days before the disease is cured and milk may be resumed. The diarrhoea may, however, last for weeks, or even until the cool weather in the fall. It is in these long cases that the skill of the physician and the courage of his convictions are most

severely taxed. For older children scraped beef, boiled white of egg, or even cracker or zwieback may often be given, and if they can be digested will aid in maintaining nutrition.

When milk is first resumed it should be done gradually, beginning with a very weak milk and working up to a strength suitable for the age and weight of the child under treatment. Milk must be discontinued at once if the diarrhoea returns. In modifying the milk the sugar solutions used for dilution may be made by dissolving sugar (preferably milk sugar) in plain boiled water or lime water or, better at first, in cereal water with or without the addition of one of the meat broths. The proportion of the elements in the modified milks used will vary according as the fat or proteid element is less suitable for the baby under treatment. The process of raising the milk strength will be more or less gradual, according to the rapidity of recovery. Sometimes it will be found best to partially or wholly peptonize the milk. [Here the author gives a tabular list of various modifications of milk, for which we cannot afford space, and proceeds as follows:]

A simpler but less accurate method of resuming milk feeding is to add a teaspoonful of milk to each bottle as soon as the stools become normal. By the addition of gradually increasing amounts of milk or cream, 8 or 12 per cent. fat, a modified milk of any desired strength and composition may be gradually obtained.

In nursing babies summer diarrhoea is much less common than in bottle babies, nor is it apt to be as severe. Castor oil will usually be retained. Breast feedings must ordinarily be discontinued for twenty-four hours. Boiled water, whey, sugar water, albumen water, or cereal water is given in the mean time. Nothing except water should be given oftener than once in every four hours. At the end of twenty-four hours feeding at normal intervals can usually be resumed, but only every other feeding should be at the breast. The nursings should only last two or three minutes, and at first it will usually be advisable to dilute the maternal milk by giving water just before each nursing. As the symptoms subside, and this nearly always occurs promptly, the duration and frequency of the nursings may be increased until the normal amount of mother's milk is given. Where pregnancy or any other cause renders the maternal milk permanently unfit for the infant, it must be weaned or a wet nurse be procured.

In cases in which vomiting is severe and persistent, whether the child is nursed or bottle-fed, calomel is the best cathartic, in doses of a tenth to an eighth of a grain every hour for eight doses.

If the first dose is vomited, it should not be repeated.

All food or medication by the mouth must be withheld as long as the irritability of the stomach persists. This may be twelve, twenty-four, or thirty-six hours. Even water by the mouth often cannot be borne. When this is the case thirst should be relieved by moistening the child's lips or giving it bits of ice wrapped in gauze to suck. The stomach should be emptied by lavage, leaving in it about an ounce of water, as water fed through the tube is more apt to be retained than if fed by mouth. Cleansing the stomach by lavage will often stop the vomiting.

Irrigation of the colon will also be called for as often as three times in the first day. In the cases with marked depletion, absorption from the colon is especially likely to occur. If the profuse watery discharges do not soon subside, it is seldom that we can get sufficient absorption of liquid from the gastrointestinal canal to maintain the circulation and signs of desiccation—sunken eyes, small pulse, and dry, wrinkled skin—will appear. Generally, however, the symptoms abate before this condition is reached. If they do not, hypodermoclysis will be called for. Eight ounces to a pint of hot normal saline solution should be injected into the cellular tissue and the dose repeated every six hours for as long as is necessary.

When there has been no vomiting for four hours a teaspoonful of boiled water may be administered by the mouth. If this is retained it may be given in increasing doses until tolerance is established. Cereal water may then be cautiously tried, and if retained the treatment continued as in Class A.

Very little reliance can be placed on drugs for the treatment of summer diarrhoea. In many cases none except the initial cathartic will be required. Cathartics, stimulants, opiates, and bismuth are all that need be mentioned.

Stimulants are needed in cases with much prostration. Alcohol, in the form of whiskey or brandy, by the mouth, where it can be retained, is the most generally useful. With failure of the circulation digitalin, nitroglycerin, strychnine, camphor in oil, or atropine in various combinations, by hypodermic injection will be indicated. Atropine, in conjunction with morphine, is especially useful in cholera infantum and diarrhoeas approaching that type.

Opium, while sometimes valuable, must be used with caution, as it is capable of doing great harm. It should never be used while the bowel contains decomposing food or until the gastrointestinal tract is well emptied. As morphine, it

may be used to diminish, but not wholly check, excessive secretion and purging where very numerous watery stools have been passed and the patient shows signs of exhaustion. As codeine or Dover's powder, it may be given by the mouth where the diarrhoea is maintained by irritability of the bowel, normal or nearly normal intestinal contents causing excessive peristalsis and colicky pains.

Bismuth is indicated when the worst of the disease is over, to hasten the subsidence of the symptoms. Enough must be given to blacken the stools.

(To be continued.)

Therapeutical Notes

Anal or Scrotal Pruritus.—Allingham recommends for anal pruritus, a cone of ivory or bone introduced into the rectum and maintained by a suitable dressing (*Tribune médicale*, August 1, 1903). Vidal scarifies the scrotum. Berger recommends diluted solutions of the hypochlorites. For anal itching caused by oxyuria. Liveing advises the following ointments:

R. Elaeo-stearate of zinc equal parts.
Vaseline

R. Calomel 45 grammes (1 1/2 drachms).
Lanolin 17 1/2 (1 drachm).

R. Cocaine 15 grammes (1/2 drachm).
Lanolin 15 grammes (1/2 drachm).
Vaseline 5 grammes (1/4 drachm).

M.

For anal pruritus, complicated with hæmorrhoids, the following is advised:

R. Extract of hamamelis 30 grammes (7 1/2 drachms);
Extract of hydrate of zinc 45 grammes (1 1/2 drachms).
Lanolin 17 1/2 (1 drachm).
Vaseline 5 grammes (1/4 drachm).
Carbolic acid 10 grammes (1/2 drachm).
M. For a lotion.

Cutaneous Pruritus.—*Tribune médicale*, August 1st, gives four formulæ as valuable in this obstinate condition:

R. Sodium sulphocarbonate 8 grammes (2 drachms);
Lanolin 45 grammes (1 1/2 drachms).

M. For an ointment.

R. Carbolic acid 5 grammes (90 grains);
Lanolin 15 grammes (1/2 drachm).
Vaseline 5 grammes (1/4 drachm).

M.

R. Benzol 20 grammes (5 drachms);
Lanolin 15 grammes (1/2 drachm).

M.

This last mixture makes an excellent excipient for resorcin. 8 per cent., and for salicylic acid, 2 to 5 per cent.

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NEW YORK, SATURDAY, AUGUST 22, 1903.

THE WORK OF THE UNITED STATES VOLUNTEER LIFE SAVING CORPS.

We have recently received an "advanced summary" of the annual report of the work done by the corps during the year 1902, together with its circular giving instruction for the rescue of persons in danger of drowning and for the resuscitation of the apparently drowned. It appears that in the waters of the States of New York, New Jersey, Pennsylvania, Connecticut, Rhode Island, and Massachusetts the corps saved 1,194 lives in the year 1902, up to October 1st, and that in the nine years of its existence it has saved 4,668 persons from death by drowning.

The corps is composed partly of men who, whether in business or not, pass their vacations or their Saturdays and Sundays or their nights at seaside and other aquatic resorts, and partly of oystermen and fishermen. We can readily believe that, as the "summary" puts it, "they work for the honor of it and their pride as members of the Life Saving Corps. They give a watchful service which money could not buy." It is said that the corps already numbers eight thousand men, and they are described as "willing to qualify themselves for life saving duties and to risk their lives to save others in the rescue."

This personal devotion to a humane work is not all that is needed, for life saving appliances have to be furnished. As the "summary" says, it is "up to" humane people to furnish ample means for securing these appliances in abundance,

and bequests are solicited to establish an Honor Medal Fund, so that, beyond any contingency, whenever a medal is earned for an heroic rescue the presentation may be made as promptly as possible, "while the people are around who witnessed the heroic act." So far as we can judge from the "summary," we believe that the corps is well worthy of the moderate financial aid for which it asks.

The circular of instructions for the prevention of drowning accidents is commendable both for its substance and for the plain language in which the instructions are set forth. There are many deaths by drowning in our country every summer, and most of them are preventable, as is shown by the statement that not a death has yet taken place as the result of submersion in the waters over which the corps is enabled to watch. This is a record that it may well be proud of. We trust that before long it may be able to extend its service over the whole country.

THE CONEY ISLAND INCUBATOR EXHIBITION.

On account of the influential opposition to the exhibition of the incubator system that has now for a number of weeks been open to visitors to Luna Park, we recently sent a representative charged with the mission of examining into the working of the incubators and the efficiency of the nursing service of which, to the general public, they are the striking feature. Since our commissioner performed his task and reported, it has been announced that the opposition referred to has been overcome, but we do not on that account judge it any the less important to lay before the profession a statement of our representative's observations.

Occasional recourse was had to the incubator principle long before the advent of Tarnier's *cureuse*; indeed, it dates back to remote antiquity. The ancient devices, of course, were exceedingly crude, and we must therefore credit Tarnier with having originated the efficient system now in use. But the Tarnier apparatus was itself crude in comparison with the elaborate incubator that Dr. Conny has devised, and that is the device which, under his own careful supervision, is demonstrated to the public at the Coney Island show.

The Coney Island incubator only supplies to the

prematurely born child the warm air necessary for its survival; in addition, it frees that air of micro-organisms by filtration and it continually leads away from the child its own foul emanations.

But the incubator itself is only one element in the painstaking system by means of which Dr. Couny endeavors to preserve the lives of infants who are weakly on account of premature birth or for other reasons. His rigid selection of wet nurses and his careful and minute direction of the feeding and cleanliness of the infants are quite as conducive to their ultimate attainment of vigor; and these features, too, are open to the observation of the public. This is well, for it is precisely the classes of people who visit Coney Island in the greatest numbers that need to be freed from the prejudices instilled into them by generations of omniscient old women and from the natural aversion of the uninstructed to allowing their offspring to be "put into a box."

As regards Dr. Couny's results, thus far, twenty babies have been treated, and only one has died. At the time of our representative's visit there were seventeen under treatment, and they all looked flourishing. It was noted that not one of them was crying; indeed, they all seemed happy. The system appears to be wonderfully efficient, and we are glad to learn that it will probably be adopted in the hospitals.

THE MORNING MUSH.

The habit of eating a cereal mush as a part of the breakfast has become almost universal with the American people. It is undoubtedly a good habit, for concentrated food, such as is to be found in meat and eggs, is not all that the stomach craves; it is well that there should be bulk in a meal as well as plenty of nutritious material. Then, too, the cereals are highly nutritious and they are for the most part mild "peristaltic persuaders," though one of them, oatmeal, has been held to have a bad effect on the skin of some persons who are subject to eczematous affections.

Useful and wholesome as the cereals are, no attention whatever should be paid to the contention that they are in any special way "brain foods." Good digestion, such digestion as the ordinary man possesses, is quite equal to the task of providing the system

with all the nutritive elements that any portion of it may require from the miscellaneous diet that most of us subsist on. The idea that a perfectly healthy person may be made healthier by a particular diet seems to have taken a strong hold upon many members of the community, but medical men recognize its absurdity and omit no occasion to combat it, though it must be admitted that it is hardly likely to do harm.

On the other hand, there seems to be at least reasonable ground for the supposition that some of the highly lauded and widely advertised preparations are actually harmful in their action, and it is well within the province of the physician to inquire into the habits of his patients regarding the morning cereal, with a view to preventing a possibility of resort to some preparation positively harmful when taken regularly by patients suffering from impaired digestion.

THE POSSIBILITIES OF THE NEW VACUUM PUMP FROM A SANITARY AND HYGIENIC STANDPOINT.

This apparatus apparently opens up possibilities for the disinfection of sick rooms and hospital wards which, so far as I am aware, are superior to those which are obtainable by any other method.

Without entering into a detailed description of the apparatus, I may say that it is provided with a sufficiently long piece of tubing, or hose, terminating in a nozzle, and that the air in this tube is exhausted and the nozzle applied, inch by inch, over the surface which it is desired to cleanse or disinfect. This operation would, of course, be facilitated if the surface were first moistened, and this could probably be accomplished by means of steam from the same apparatus. Possibly such a procedure may not be necessary. The nozzle having been applied, dust, germs, moisture, all things which are removable from the surface, are drawn into the tube and deposited in a receptacle for the purpose, whence they may be disposed of in a furnace or other suitable place for their destruction. There are sometimes objections to the use of sulphur or formaldehyde as a disinfectant. Many people find the resulting odors exceedingly disagreeable, injury to certain materials and fabrics is of very common occurrence, and it is generally admitted

that the work is not always so efficiently done as the authorities might desire. Those who have seen the new apparatus in operation speak with enthusiasm of the apparent thoroughness with which it does its work.

Why would it not be an admirable means, free from any possible objection, for ridding a room or ward of the germs of disease? If we admit that these are tangible, they must be deposited upon the surfaces of objects, and as every portion of the room may be reached by the nozzle of the apparatus it would seem as if the escape of no single germ was possible. Every inch of surface could be covered as thoroughly as by means of a painter's brush. As to the question of expense, I am unable to speak, but on grounds of thoroughness and efficiency the method would seem an admirable one and one which obviates the disagreeable features of other methods.

ANDREW F. CURRIER.

TRACHOMA AND IMMIGRATION.

One of the most frequent causes of exclusion of immigrants to this country is trachoma, and it may safely be said that it affords more anxiety to the medical staff of steamship companies and occasions more financial loss in the way of government fines and compulsory return passages on the part of the international navigation companies than all other diseases combined. The reason for this is simple. Most constitutional diseases which would exclude an immigrant are comparatively easy of detection, even by lay agents of the companies, and certainly by a competent physician during the ordinary line inspection. Mental aberration is extremely difficult to detect in a person of limited intelligence and speaking a foreign language, unless it is of high degree, and the same may be said of various other diseases which would theoretically warrant the exclusion of an immigrant, but in these cases the attainment of a diagnosis is as tedious and difficult for the immigration inspectors as for the medical officers of the transatlantic liners.

A very practical difficulty in the diagnosis of trachoma is the absence of a satisfactory definition of the disease. From the purely clinical standpoint, it is easy to formulate a description, but scarcely a definition, of trachoma in its typical

form. Translated into simple language and summarized, the definition of trachoma is merely that it is a marked and obstinate form of granular conjunctivitis, with a tendency, variously estimated by different authorities, to prove contagious. Just at present trachoma is a hobby of the immigration inspectors, and every case of conjunctivitis that has any resemblance to trachoma proper is so considered and is excluded. The steamship company is, at the same time, subjected to a fine and required to return the undesirable immigrant. The genuineness or, let us say, the typicalness of the case may be open to question, but there is no appeal.

One of the most frequent results of exposure to wind, sunshine, and salt water or to crowding in quarters that cannot be kept in the most sanitary condition by any exercise of care is conjunctivitis, and, consequently, a considerable number of sore eyes are sure to develop among the steerage passengers on any steamer. All such cases which are not obviously of the most transient nature are held for examination for a number of days, at the expense of the carriers, so that the most rigorous examination by a specialist at the point of emigration cannot remove the item of financial loss to the company or the anxiety felt by a conscientious ship's surgeon. A curious and not very logical fact is that if a case is labeled "eye disease" by the carriers' officers, the fine is remitted, though the expense for quarantine inspection remains. (The word quarantine is here used in its general sense.)

While all true Americans, whether by birth or naturalization, must welcome any procedure which shall diminish the bulk of immigration and raise the physical, mental, and moral standard of admission, the evasion and extension of meaning of a law seem reprehensible, however excellent the object in view. Authority is given to the immigration inspectors to exclude any case of disease that may justly be considered disabling, loathsome, or dangerously communicable. While there is considerable difference of opinion expressed by different authorities, I believe that the general consensus of opinion scarcely warrants the exclusion of cases of trachoma on any of these grounds, unless the disease is of unequivocal au-

thenticity; in other words, of typical severity. Even typical trachoma is only remotely a cause of disability for the cruder forms of industry to which most immigrants are destined, actual blindness being comparatively an infrequent and almost always a late result. If moderate development of chronic granulations is considered as trachoma, the usual result is scarcely more than an inconvenience to the individual. The term loathsome can hardly be construed in its æsthetic sense, and, even if it is, moderate degrees of trachoma are not conspicuous to the ordinary observer nor even to a physician not specially educated in ophthalmology or trained to notice empirically the slight change of expression characteristic of these cases.

The crux of the whole discussion bears upon the contagiousness of trachoma. A genuine contagious disease, in the sanitary sense, must have a specific germ. While some observers have described specific microorganisms of trachoma, none of these reports is accepted, and the testimony of bacteriologists in general is directly opposed to the probability of there being a specific germ of trachoma. Various ordinary saprophytes and facultative parasitic bacteria may be cultivated from a case of trachoma, or, indeed, from any case of conjunctivitis. That such a case may be literally contagious cannot be disputed, but it is at least questionable whether trachoma is more contagious than non-specific sepsis of the skin in the form of boils or non-specific irritative saprophytosis of the bowel, as in the case of an ordinary diarrhœa. If we grant that there is nothing specific about the bacteria found in trachoma—and the present teaching of bacteriology compels us to do so or to postulate an undiscovered and elusive germ—we may well ask why we should ascribe one case of trachoma to infection from another case of the same kind rather than to infection from a boil or from the débris lodged beneath dirty finger nails or from any other nidus of saprophytes and pus germs.

The specificity of trachoma is *a priori* improbable. A specific germ, so far as our present bacteriological and clinical knowledge goes, produces either a characteristic, acute, self-limited disease or a chronic morbid histological condition which is equally characteristic and which is not limited

to one particular anatomical region. It is true that certain acute infections show a marked predilection for particular parts, and that certain specific germs may cause either an acute or a chronic disease, but there is no analogy to suggest that there is a specific germ capable of causing ordinary granulations in the eyelids alone.

On the contrary, such communicability as is manifested in the occurrence of familiar and communal trachoma is directly in line with the implantation of non-specific microorganisms in higher animals of lessened resistance from general causes, or, to limit our consideration to human beings, in persons liable to repeated inoculation on account of filthy habits. There seems to be no greater tendency to the development of trachoma by contagion than to the development of boils, coryza, bronchitis, or diarrhœa from close personal association, improper hygiene, and carelessness with regard to discharges. Indeed, we might even go so far as to say that any one of these conditions might produce, in succession, all the others.

Admitting the propriety of excluding as a disabling disease any typical case of trachoma, it is illogical to exclude an immigrant who presents a moderate degree of conjunctival granulations and to admit one of the same constitutional state or with the same tendencies to ignore ordinary sanitary laws. I should welcome any overt legislation to exclude undesirable immigration. I can appreciate the desirability of delaying to the utmost the overcrowding that threatens every desirable locality of the world. I could, if it were not altogether too late, listen to the argument of those who contend for the superiority of pure as opposed to mixed blood, but it does not seem to me that the supervision of immigration under existing laws should exceed the intent of those laws.

A. L. BENEDICT.

A SIMPLE METHOD FOR THE CONTROL OF ANAL HÆMORRHAGE.

Anything that will stop bleeding is worth consideration. That a simple means may be described briefly is not to its demerit. Given a hæmorrhoid removed, the wound should be lightly cauterized and closed by the buttonhole stitch. The suture should be set with a long free end at-

tached at the upper angle of the wound. Should there subsequently develop a hæmorrhage, the resident surgeon or trained nurse or whoever is in charge should draw the patient, in Sims's posture, to the bed's edge, take the suture (which is attached to the upper end of the wound) in the left hand and an opened hæmostat in the right; then, at the moment when the patient, in obedience to a command, strains as at defæcation and the pelvic floor descends and anus everts, the attendant should draw taut the suture end and hold exposed and accessible to his forceps the entire length of the wound. No attempt should be made to individualize the bleeding points, the wound should be clamped throughout its length.

THOMAS CHARLES MARTIN.

MICROGRAPHY.

The adoption of a minute style of handwriting seems to be rather rare as a pathological manifestation, commoner in the insane than in others, according to Pick, of Prague (*Prager medicinische Wochenschrift*, 1903, No. 1; *Berliner klinische Wochenschrift*, May 18th), though Embden has observed it as the apparent result of manganese poisoning, an occurrence that seems difficult to explain.

THE DEATH OF AN EMINENT OBSTETRICIAN.

The late Dr. William Smoult Playfair, of London, was something more than a fashionable doctor; he was a frequent contributor to the periodical literature of obstetrics and gynæcology, and he was the author of two important books, a *Handbook of Obstetric Operations*, published in 1865, and a *Treatise on the Science and Practice of Midwifery*, which appeared nearly twenty years later and at once became a popular text-book, not only reprinted in the United States, but also translated into French.

A DEGRADING SERVICE.

We have until now refrained from commenting on the atrocious treatment meted out to a woman convict in Georgia, hoping for a denial of the allegation that the prison physician had, at the warden's behest, examined the woman and given it as his opinion that she was physically able to endure a flogging. We can imagine that the people of Georgia will speedily punish the warden, and we can imagine also that the physicians of the State will hasten to show what they think of such a performance by the prison physician.

News Items.

Society Meetings for the Coming Week:

TUESDAY, August 25th.—Richmond, Va., Academy of Medicine and Surgery; New York Medical Union (private).

WEDNESDAY, August 26th.—New York Academy of Medicine (Section in Laryngology and Rhinology); American Microscopical Society of the City of New York; Philadelphia County Medical Society; New York Dermatological Society (private); Auburn, N. Y., City Medical Association; Berkshire, Mass., District Medical Society (Pittsfield).

THURSDAY, August 27th.—New York Academy of Medicine (Section in Obstetrics and Gynæcology); New York Orthopædic Society; Pathological Society of Philadelphia; New York Celtic Medical Society.

NEW YORK, CITY AND STATE

Change of Address.—Dr. Gregory Costigan, to 63 West Sixty-eighth Street.

Smallpox in Yonkers.—The first case of smallpox that has occurred in Yonkers for many months was removed to the city hospital on the 4th inst.

At the Rochester State Hospital, in the future domestic science will be taught, in the nature of an experiment, by Miss Grace G. Wilbor, a graduate of the Mechanics' Institute.

Scarlet Fever Epidemic in a Brooklyn Asylum.—Twenty-five cases of scarlet fever, said to be of a mild nature, have broken out in the Brooklyn Orphan Asylum. They are quarantined in the hospital ward on the top floor.

An Appeal for the Children.—The sisters in charge of St. Mary's free hospital for children, at 405 West Thirty-fourth Street, desire contributions for their fresh-air work. The treasurer of St. Mary's is Sister Catherine.

Dr. John F. W. Meagher, a graduate of St. Mary's Hospital, Brooklyn, at present medical interne at the State Hospital, Ogdensburg, has received the appointment of Junior Physician at Manhattan State Hospital, West, Ward's Island, New York City.

Farewell Dinner at the Kings County Hospital.—Members of the house staff of Kings County Hospital tendered a dinner to Charles Falkowsky and Arthur K. Doig, retiring house surgeons, on the evening of the 5th instant. Over twenty-five physicians were among the invited guests.

Athol Springs Hospital.—Thirty-six babies have been cared for at the fresh air mission at Athol Springs, near Buffalo, in the three weeks since its foundation. Much valuable information has been given to mothers regarding the kind of food suitable for young children, the proper methods for preparing it, and the hours of feeding.

Albany Hospital for Incurables.—This institution is now beautifully situated on Kenwood Heights, in a colonial mansion set in the midst of twelve acres of wooded land, interspersed with lawns and flower beds. Miss Mary McHugh is superintendent. It is hoped soon to build two five-story towers for isolation purposes. Contributions to this charity will be gladly received.

The City Slaughtering Houses.—The recent thorough inspection of the city slaughtering houses has resulted in marked changes for the better, in these establishments. Pavements have been relaid, and the joints filled with tar, a search is being made for non-absorbent material for paving, and in one instance a complete renovation of the plant has been inaugurated.

Diphtheria in Rochester.—In January last, there were 19 cases of diphtheria in Rochester, and in July, 90 cases. In all, there have been 365 cases since the beginning of the year. It will probably be necessary to begin prosecutions for violation of the rules, as infected people have been notoriously careless in the matter of exposing themselves.

Danger of an Epidemic of Glanders.—The health department has discovered two horses dying from glanders, in the borough of the Bronx, and two suffering from the same disease in a lot on 138th Street, near Harlem River. Extra inspectors will be put on, as, it is stated, children have been seen playing near the affected animals, and an epidemic is feared.

The Stony Wold Sanitarium, for the care of self supporting women and girls, suffering from tuberculosis, was opened on August 15th. Two of what is intended to be a series of buildings were dedicated. The sanitarium is beautifully situated on the shore of Lake Kushaqua, five miles from Loon Lake, and three hundred and sixty-five miles from New York City. The medical board consists of the following physicians: From New York City: Edward G. Janeway, George F. Shrady, Francis Delafield, Charles H. Knight, Charles M. Cauldwell, James E. Newcomb, and from Albany, Henry Hun and Arthur G. Root.

Legal Complications in Monroe County.—Claim has been entered by Dr. George W. Goler against Monroe County for services rendered to inmates of the almshouse suffering from smallpox, to the amount of \$4,540. The city of Rochester also sues for \$998, and a nurse for \$750. Dr. Goler's claim is contested on the ground that he is a city official, but it is argued that under the circumstances, he acted, not for the city or county, but for the general public; his duties cease with securing the isolation of infected persons, and he is under no obligation to treat them.

New Maternity Hospital.—President Moses Taylor of the new Manhattan Maternity Hospital filed plans on the 5th instant for the erection of a building at Nos. 327 to 333 East Sixtieth Street. The building is to cost \$58,000, and will be of ornamental brick, four stories in height, and of fire proof construction throughout. There will be rooms for doctors, students, nurses, and general hospital purposes, besides wards, isolating rooms, diet kitchen, operating room, and amphitheatre. Mr. Thompson, building commissioner, is chairman of the committee to supervise the construction of the hospital. It is to be hoped that it will receive better support than the present magnificent institution at Sixteenth and Seventeenth Streets and Second Avenue, which is constantly in need of funds, a false impression apparently existing that the hospital is amply endowed.

Early Death of Dr. J. E. Hills.—Jannat Ernestine Hills, M. D., died at the Willard State Hospital, Willard, New York, on July 11, 1903. She had been a member of the medical staff of the hospital since November, 1895. She was born in Auburn, N. Y., in 1861, and was a graduate of the Woman's Medical College of Pennsylvania in 1893. After graduating, she was for fourteen months an interne at the Sheltering Arms Hospital in Philadelphia, and was afterwards on the staff of the New York City Asylum for the Insane at Hart's Island. Dr. Hills was a member of the Seneca County Medical Association and of the New York State Medical Association.

State and County Civil Service Examinations.—The next general examination for the State and county service will be held on September 12, 1903. The following positions are included: Bee inspector, department of agriculture, cooking instructor, State institutions, elevator conductor, city and county hall, Buffalo; instructor in carpentry, instructor in machinery, instructor in upholstering, State institutions; officer, State institutions; photographer and instructor in photoengraving and etching, Elmira reformatory; pupil nurse, Erie county hospital; sugar beet instructor, department of agriculture; teacher, western house of refuge at Albion; trained nurse, Erie county service; and woman physician, State hospitals and institutions. Persons desiring to enter these examinations must file applications in the office of the State Civil Service Commission in Albany before noon of September 7th. Application blanks and information regarding salaries and requirements of examinations may be obtained by addressing the Chief Examiner of the Commission at Albany.

PHILADELPHIA AND PENNSYLVANIA

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

DISEASES	Week end'g Aug. 15.		Week end'g Aug. 8.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	16	7	36	5
Diphtheria	49	5	44	10
Scarlet fever	63	6	64	0
Typhoid fever	71	14	108	14
Consumption	..	56	..	51
Cerebrospinal fever	..	1	..	1

This table shows a decrease of thirty in the total of cases of contagious diseases as compared with the preceding week.

Pure Milk for the Babies.—So great has been the demand for the pasteurized milk supplied by the Philadelphia Pasteurized Milk Society, that numerous distributing stations will be established in various parts of the city as speedily as possible. Formal agreements will be made between the Philadelphia Pasteurized Milk Society and the organizations and persons desiring to conduct distributing stations, and all of these stations will be subject to frequent inspections by the officials of the society. That the public is taking an interest in the work of the society is shown by the fact that contributions amounting to nearly \$2,000 have been received without any special effort having been made.

Smallpox Still Raging.—There seems to be no abatement in the number of smallpox cases. For the week ending August 8th, there were thirty-

six new cases. The report made by the Bureau of Health is as follows: The deaths from all causes during the week numbered 423, being a decrease of 62 from those of last week, and an increase of 10 over the corresponding period of last year. These included: alcoholism, 2; apoplexy, 12; Bright's disease, 5; burns and scalds, 2; cancer, 20; casualties, 16; cholera infantum, 50; cirrhosis of liver, 4; consumption of lungs, 51; convulsions, 3; croup, 2; cyanosis, 3; diphtheria, 8; heart disease, 30; drowned, 2; typhoid fever, 14; inflammation of appendix, 3; inflammation of lungs, 18; marasmus, 26; old age, 13; paralysis, 6; smallpox, 5; suicide, 1; tumor, 4; uræmia, 12; whooping cough, 6.

Improvements in Frankford Hospital.—It is the intention of the management of the Frankford Hospital at Penn and Sellers Streets to have all the interior work of the institution completed this week. August 17th is the day set for the final change. It is intended to change the present dispensary and accident rooms from the west to the east side of the building and make separate rooms for each. Light, airy sleeping quarters are to be made on the east side of the second floor for the nurses, physicians, and hospital employees. The surgical operating room and private wards for patients will be located on the west side of the second floor. Dr. Joseph P. Ball, assisted by many contributors, will fit up the entire third floor of the hospital for the medical department.

CHICAGO AND ILLINOIS

The American Association of Obstetricians and Gynecologists will hold its sixteenth annual meeting in the Northwestern University Medical School Building, Chicago, Ill., Tuesday, Wednesday, and Thursday, September 22, 23, and 24, 1903, under the presidency of Lehman H. Dunning, of Indianapolis. The Auditorium Hotel, Annex, has been selected for the headquarters of the association, the management of which should be addressed concerning rooms and rates. J. B. Murphy, Reliance Building, 100 State Street, is the chairman of the committee of arrangements, and will gladly furnish any information to members and guests upon application. Dr. Murphy also can be addressed, relating to accommodations, at the Auditorium Annex, or other hotels. The following list of papers has been offered: President's address, by L. H. Dunning, of Indianapolis; Supravaginal amputation for fibroids, with report of cases, by H. E. Hayd, of Buffalo; Traumatic rupture of intestines without external marks of violence, with report of cases, by Geo. S. Peck, of Youngstown, O.; Ectopic pregnancy, by H. D. Ingraham, of Buffalo; Relationship of the colon to abdominal tumors, by J. F. Baldwin, of Columbus; Cysts of the kidney, resembling ovarian tumors, with cases, by Rufus B. Hall, of Cincinnati; Total extirpation of the vagina for carcinoma, by Charles G. Cumston, of Boston; Surgery of the female bladder and urethra, by John B. Murphy, of Chicago; Surgery of the ileocecal valve for non-malignant diseases, by N. Stone Scott, of Cleveland; The curette in postpartum infections of the uterus, by D. Tod Gilliam, of Columbus; The use of *veratrum viride* in surgical and obstetrical prac-

tice, by Chas. L. Bonifield, of Cincinnati; Should the uterus and ovaries be removed in cases of double pyosalpinx? by C. C. Frederick, of Buffalo; Placenta Prævia, by E. T. Abrams, of Dollar Bay; The limitations of cesarean section, by E. Gustav Zinke, of Cincinnati; Further notes on ovarian grafting, by Robt. T. Morris, of New York; Conservative surgical treatment of the uterine annexa, by A. P. Clarke, of Cambridge; The value of vaginal cesarean section, by M. Stamm, of Fremont, O.; Hysteria as a result of chronic atrophic parametritis; a contribution to the study of nervous disturbances, by W. A. Freund, of Berlin; Anæsthesia in abdominal surgery, by J. J. Gurney Williams, of Philadelphia; The technics of gynecological work, by A. Vander Veer, of Albany; Emergency abdominal surgery at the patient's home—a demonstration, by W. G. Macdonald, of Albany; Discussion of common causes of death following pelvic and abdominal operations, by Joseph Price, of Philadelphia; The indications and technics of vaginal drainage for suppuration in the pelvis, by A. Goldspohn, of Chicago; Infra-vaginal elongation of the cervix, by M. Rosenwasser, of Cleveland; Appendicitis, by Walter P. Manton, of Detroit; Chloroform in labor, by Edwin Ricketts, of Cincinnati; Study of the symptoms and surgical treatment of intestinal perforation in typhoid fever, by W. D. Haggard, of Nashville; Symptomatology of the pelvic musculature, by Hugo O. Pantzer, of Indianapolis; Palliative treatment of cancer of the cervix, by Walter B. Chase, of Brooklyn; Abdominal versus vaginal hysterectomy in carcinoma where the radical operation is warranted, by John B. Deaver, of Philadelphia; Hysterectomy in infectious diseases of the uterine appendages, by H. C. Deaver, of Philadelphia; The scope and limitation of myomectomy in the treatment of fibroid tumors of the uterus, by L. S. McMurtry, of Louisville; In memoriam, by William E. B. Davis and L. S. McMurtry, of Louisville; Penetrating gunshot and stab wounds of the abdomen, with report of cases, by John Young Brown, Sr., of Saint Louis; Report of abdominal sections during pregnancy, by X. O. Werder, of Pittsburgh; Shortening the round ligaments by the blunt hook method, by H. W. Longyear, of Detroit; The Gilliam operation: a clinical contribution, by Edward J. Ill, of Newark; Report of a fourth consecutive successful operation for acute perforated gastric ulcer, with general infection of the peritoneal cavity, by Henry Howitt, of Guelph, Ont. During the meeting J. B. Murphy, by request, will hold a clinic, at which some demonstrations of special interest will be made. Dr. Macdonald will give a demonstration of Emergency Surgery at the Patient's Home, showing operator, assistants, nurses and equipment in full detail, immediately preceding Dr. Murphy's clinic. All members of the medical profession are cordially invited to attend the scientific sessions.

GENERAL

The Woman's Hospital of Denver is to undergo extensive enlargements and repairs, and a handsome outfit of surgical instruments and appliances is to be furnished.

Better Doctors for the Poor.—In Cleveland, O., a plan is under consideration to replace the present twelve physicians by six older men, of greater experience. It is thought that the city will benefit in its death rate, by this plan, and secure greater care.

The City of Salem, Mass., having vainly tried to interest other cities in a common system of drainage, has been compelled to adopt an arrangement of its own. This determination has, it is thought, brought the recalcitrant towns into line, and a satisfactory sewage system will be devised.

Candidates for Practice in Massachusetts.—Although the State board of Massachusetts conducts five annual examinations for the licensing of graduates in medicine, over 200 presented themselves at the last meeting, on the 14th inst.

Trained Attendants on a Railroad.—The Michigan Central Railway has decided to train all its employees in first aid to the injured, and will arrange for them to attend courses of lectures in several different branches of medicine and surgery, at Chicago and Buffalo.

Boston Floating Hospital.—Another good suggestion with regard to the support of floating hospitals comes from Boston. The congregation of Eliot Church, of Newton, paid the expenses of the Boston institution for a day and a night, by special collections.

Race Suicide in San Francisco?—The health department of San Francisco, in its recent report of births and deaths during the fiscal year just completed, states that the number of the former was exceeded by the latter to the extent of over two thousand.

The Emergency Hospital at Detroit, Mich., is to be thoroughly overhauled at an expense of \$1,000 before the opening of the fall term of the Michigan College of Medicine. The auditorium is to be divided into a lecture room and an assembly room, each to have a capacity of 150 seats.

Kenosha, Wis., is to Have a New Hospital, through the generosity of a number of its prominent citizens, who have subscribed over \$12,000 for the purpose. A large private residence has been purchased, on which the money will be spent to fit it for hospital uses.

A French Physician Ordained.—Dr. Bonifay, of Marseilles, who, five years ago gave up his practice to study theology, said his first high mass on the first instant, at the Hospital of the Conception, where he had spent many years as a clinical teacher, both in the outdoor and indoor departments.

X Ray and Mosquitoes.—A physician in Newark, N. J., too modest to give his name, according to the *New York Sun*, has discovered that mosquitoes are fatally affected by the x ray. Moths are apparently not influenced in any way. The doctor, appreciative of the code, does not wish his name mentioned, but would be glad to hear from brother practitioners, if any mosquito mortality has followed their experiments with the x ray.

Still More Weed Destruction.—Following the lead of Denver and Atlanta, as recently recorded in our columns, Louisville, Ky., has decided to undertake an extermination of the tall and unsightly weeds that disfigure many of her lots. The health department has petitioned the city general council to act in the matter.

Two Physicians Drowned.—Adolph Cudell and Ernest H. Luete, two well-known young Cleveland physicians, were drowned in Lake Erie on the 5th instant. They had procured a boat, from which they were diving. One of them threw up his hands suddenly and disappeared, and the other going apparently to his assistance, also vanished. It is thought the first was seized with cramps.

Tenacity of Diphtheria.—A story comes from an Ohio village to the effect that a child died of diphtheria and its clothes were packed in an old chest by the mother. The latter died fifteen years later, and her daughter and granddaughter, who unpacked and handled the garments, were both attacked with the disease. There had been no recent cases in the village.

Hospital Building for Lecture Rooms.—The opening of the new Memorial Hospital in Richmond, Va., will enable the Medical College of Virginia to use the entire building of the Old Dominion Hospital as additional space for lecture rooms, laboratories, etc. The increasing number of students at the institution renders the extra accommodation most welcome.

An American Woman Gets a Doctor's Degree in Germany.—Florence Mary Fitch, of Stratford, Conn., has received the degree of doctor from Berlin University with honors. She is the ninth woman, and the third American woman to take this degree. Dr. Fitch is a graduate of Oberlin College, and was subsequently a teacher in the high school in Buffalo. The subject of her thesis for the degree was "Utilitarianism."

Consumptives' Home for Wisconsin.—Governor La Follette appointed on the 4th instant, a commission of three to investigate the question of tuberculosis in Wisconsin and the desirability of establishing a sanatorium. The members are Gustave Schmidt, H. L. Russell, and Michael Raven. They will serve without pay other than for their services, and will report to the Governor before December 1, 1904.

The National Physicians' Association has lately been seeking members in Michigan. It states that its object is to permit reputable physicians licensed by any one State, to practise in all the others, without the trouble and expense of re-registration. Steps have been taken to organize branches in each State, and a meeting will shortly be held in Lansing, with the object of fortifying the society in Michigan.

Pasteur Institute for New Orleans.—Officials of the charity hospital of New Orleans have started a movement for the erection of a Pasteur Institute for the treatment of hydrophobia, in connection with the hospital. It is estimated that such an addition would not cost more than \$500. Patients bitten by rabid dogs are now obliged to go to Atlanta, or Baltimore, at considerable expense.

Another "Grafter" on Physicians.—According to information received from Dr. J. W. Fairing, of Palmer, Mass., a young man giving the name of Phillip Nodell and stating that he represents C. Bertram & Co., importers of wine and brandies, of Berlin, Germany, and Rochester, N. Y., has been collecting money under false pretenses. He takes orders for whiskey, wines, etc., collects a deposit, and disappears. The man is young and of Jewish appearance.

Cost of Fever in South Africa.—A bulky British blue book, issued on the 8th instant, states that there was no connection between the outbreaks of enteric fever and dysentery in South Africa. The immunity of the Boers is attributed to the fact that they were accustomed to boil all their drinking water. The commission drawing up the blue book finds that flies were the active agents in disseminating enteric fever in standing camps. This fever is calculated to have cost the British, during the late campaign, something like \$20,000,000.

Graduates in the District of Columbia.—The following have been licensed to practise in the District by the recent examination: Sidney Behrend, John W. Gaver, Wilbur H. R. Brandenburg, Giles B. Cook, Elmore E. Butterfield, Robert S. Trimble, Anna Bartsch, Rebecca Stonerod, James G. McKay, Joseph A. Starr, William S. Manning, Louise T. Jones, E. G. Lascot, William J. Mallory, Bernard H. Harrison, Lewis H. Taylor, Robert J. McAdory, Eric A. Abernethy, Dwight G. Smith, Harry H. Donally, Edward J. S. Lupton, H. I. Silvers, W. T. Hilliard, Jr.

National Bureau of Medicines.—The joint committee appointed by the American Medical Association and the American Pharmaceutical Association to study and report on the plans of the proposed National Bureau of Medicines and Food, are said to have received word that the majority of manufacturers of proprietary medicines favor the movement. The object of the bureau is to secure uniformity of standards in medicines and food. Those manufacturers who are opposed to the movement say that the reputation of the individual house is sufficient guarantee of the quality of its product.

Decrease in Death Rate of Manila.—The average death rate in Manila for the first three months of 1900 was 48.80, but it is said it has been reduced under American auspices to 22.17 for the corresponding three months of this year. This is in spite of the presence of bubonic plague and Asiatic cholera. The results have been accomplished in the face of many disadvantages, such as the insalubrious site of the city. The board of health found it impossible to turn previously existing conditions to advantage, and it was necessary to develop entirely new plans of improvement, and at the same time to combat ideas and conditions inherited from our Spanish predecessors.

San Francisco Board of Health.—The annual report of this board was submitted on July 30th, and called attention to the splendid administra-

tion of the city and county hospitals, and the almshouse. A suggestion was made that legislation be enacted to compel children to support their parents, and thus relieve congestion at the almshouse. Objection was made to the suppression by the Mayor of the monthly report of the board of health. The expenditure on behalf of the almshouse was \$84,711.29, and for the city and county institutions, \$104,999.92, leaving an unexpended balance of eight cents.

The Annual Meeting of the Medical Society of the Missouri Valley will be held in Omaha, September 14 and 15 (instead of 17, as previously announced). This change has been made at the request of the committee on arrangements. The governors of the Knights of Aksarben have asked the members to be their guests on the evening of September 14th. Invitations will be issued in due time to all members who signify their intention of being present at this meeting. Those desiring to contribute papers should send their titles to the secretary at once, in order to secure a place upon the programme. A symposium on skin diseases will be a feature of the first day. Chas. Wood Fassett, secretary.

Investigation of Tetanus by Michigan State Board of Health.—The State board of health of Michigan has addressed a letter to each town health officer of the State, asking for information regarding tetanogenic wounds received from toy pistols. The letter states that the saltpetre used in making certain grades of gunpowder is manufactured from the excrement of bats, found in caves. It details other sources of tetanus, and goes on to say that although the State of Michigan provides a penalty of a fine or imprisonment for the furnishing to any child of a toy pistol, or similar contrivance, the board will limit itself to the medical aspect of the cases reported. An elaborate blank form for reporting cases of tetanus accompanies the letter.

At a Meeting Held in New Orleans August 6, 1903, it was resolved that: On and after August 10th all uninfected vessels from clean Cuban ports be admitted to free pratique after thorough inspection at the quarantine station, including taking the temperatures of all on board, disinfection of soiled clothing and containers, and other suspected articles, either by steam heat or formaldehyde, and that passengers from Cuban ports be permitted entry without further restrictions, provided that each passenger furnishes a certificate from the chief medical officer of the Cuban port of departure, stating that said passenger has resided not less than five days in Cuba prior to sailing from that island. Agents of the steamship lines in Havana upon delivering their tickets to passengers shall instruct them to place all their soiled clothes and linen in a separate bag, trunk, or box in order to simplify quarantine regulations at the home port. Should any soiled clothes and linen be found among unsoiled clothes and linen the whole package shall be disinfected. 2d. The vessel may be disinfected at the discretion of quarantine authorities.

Dr. Arnell's New Appointment.—James Arnell, who resigned last spring as instructor in internal medicine at Ann Arbor University, has been appointed associate professor of medicine at the University of Colorado.

The International Congress of Ophthalmology, which was held in Utrecht in 1899, elected Switzerland as the country for its next meeting. In answer to the appeal of Professor Pflüger, the organizing committee of the congress has been constituted. They have elected as President, the eldest of their Swiss colleagues, Professor Dufour; vice-president, Professor Pflüger; secretary and treasurer, Professor Mellinger, and Professor Snellen, President of the last congress, honorary President. The President of the Swiss Confederation, Dr. Deucher, has very kindly accepted the position of honorary President of the 10th Congress of Ophthalmology. The Swiss ophthalmologists have enthusiastically received the news of the choice with which the congress of Utrecht has honored their country. The forthcoming Congress will be held in 1904, at Lucerne, on the 19th, 20th and 21st of September.—These three days will be devoted to work, the mornings being reserved for discussions, the afternoons for practical demonstrations. Members who intend to submit papers, will please send manuscript, accompanied with remittance fee, before May 1, 1904. Papers must be in English, French, German, or Italian. There will be one official subject discussed, The Question of Indemnity as Regards the Value of an Eye, Lost or Injured. It is possible that other papers arriving later than the 1st of May, 1904, may be discussed, and then published in the second part of the official report. But this can only be on the express conditions that the discussions on the already printed papers should leave sufficient time, and that these other papers should not exceed the prescribed length. Lucerne proposes to give a reception on the eve of the opening of the congress, the 18th of September. On the 20th of September, the official dinner will take place. For one of the evenings, and for the whole of the 22d of September, a mountain or lake excursion has been organized. The *Lac des Quatre Cantons* steamboat company, and the railway companies of the Pilatus and Righi, have kindly consented to reduce their charges to half price, in favor of the members of the congress and ladies. An entrance fee of \$5.00 will give the right to the official report of the congress and to all privileges, except the entire day excursion and the dinner. Remit to Professor Mellinger at Bâle. American physicians may obtain further information from Dr. DeSchweinitz, 1401 Locust Street, Philadelphia.

An Enema with Creosote.—Creosote is soluble in a solution of medicinal soap (*Presse médicale*, August 1st). Yolk of egg diminishes its causticity. The following enema is usually well supported:

- R. Creosote { of each.....1 gramme (15 grains);
Almond soap {
Yolk of egg.....one;
Boiled water.....250 grammes (8 ounces).
M. For an enema.

List of Current Literature.

BRITISH MEDICAL JOURNAL.

August 1, 1903.

1. The Evolution of Antiseptic Surgery and Its Influence on the Progress and Advancement of Bacteriology and Therapeutics (President's Address),
By T. D. GRIFFITHS.
2. Infective and Infectious Diseases (Address in Medicine),
By FREDERICK T. ROBERTS.
3. Observations on the Evolution of Abdominal Surgery from Personal Reminiscences Extending Over a Third of a Century and the Performance of Two Thousand Operations (Address in Surgery),
By A. W. MAYO ROBSON.

THE LANCET.

August 1, 1903.

1. The Evolution of Antiseptic Surgery and Its Influence on the Progress and Advancement of Bacteriology and Therapeutics (President's Address British Medical Association),
By T. D. GRIFFITHS.
2. Infective and Infectious Diseases (Address in Medicine),
By FREDERICK T. ROBERTS.
3. Observations on the Evolution of Abdominal Surgery from Personal Reminiscences Extending Over a Third of a Century and the Performance of Two Thousand Operations (Address in Surgery),
By A. W. MAYO ROBSON.
4. The Causes, Prevalence, and Control of Pulmonary Tuberculosis (Milroy Lecture),
By H. TIMERELL BOLSTRODE.
5. A Case of Recurrent Varioloid Rash Following Vaccination,
By R. W. C. PIERCE.
6. The Ill-health of Richard Wagner,
By GEORGE M. GOULD.
7. The Estimation of Free Hydrochloric Acid in the Gastric Contents,
By C. E. HAM.

1. Antiseptic Surgery.—Griffiths, after reviewing the surgery of former days and the changes which were brought about by the experiments and investigations of Lister, regrets that antiseptics have been so generally abandoned in surgery in favor of asepticism alone. He believes that perfect sterilization of the skin and all the objects coming in contact with a wound is very difficult to obtain, and that, since antiseptics may be employed which do no harm to the healing process, they should be used in connection with the effort to render everything aseptic, as an additional safeguard.

The combination of the two principles advocated by Lister he considers the acme of safety. The great advances made in the study of bacteria, their methods of growth and development, is believed by the author to be largely due to the discoveries of Pasteur and the evolution of antiseptic surgery by Lister, which led to the discovery of the organisms producing tuberculosis, diphtheria, typhoid fever, and other diseases. His theory of immunity is based upon the destruction of one set of organisms by another. This immunity is conferred so long as the germs which have destroyed the toxins of the first pathogenic organisms remain in the blood or tissues, and when these germs become attenuated immunity is lessened, and when they are destroyed immunity is lost for a time.

Referring to the rapidity with which bacteria grow and the ease with which their virulence may be attenuated, the author thinks it natural to infer that under favorable conditions the bacillus coli communis may be developed into the bacillus typhosus, and the pseudo-diphtheria bacillus into the diphtheria bacillus. The therapeutic action of such drugs as quinine, salicin, mercury, arsenic, iodine, etc., is considered by him to be bactericidal in character.

2. Infectious Diseases.—Roberts defines as an infective disease one which is the direct result of the action upon the body of one or more living pathogenic microorganisms which in most instances are specific for a particular disease. He defines an "infectious" disease as one which is communicated either by direct inoculation or indirectly, in various ways, from person to person or from an animal to man. He refers to the striking advance which has been made in our knowledge of the sources, modes, and channels of infection of infective diseases. The principal sources are stated to be (1) the air; (2) drinking water; (3) food, especially uncooked; (4) animals and insects; (5) soil; (6) autoinfection, or infection of others by germs carried about in the body which may be harmless for a long time, and then under favorable conditions become virulent.

The important part taken by bacteriology in making the diagnosis of the infective diseases is very carefully considered in this address.

The modern methods of the treatment of these diseases is touched upon with especial reference to the modern research and advance in serum therapy.

3. Abdominal Surgery.—Robson in this address has given a very complete and exhaustive review of the work which has been done in abdominal surgery during the past thirty years, comparing the results then and now.

The article covers peritonitis, appendicitis, surgery of the bile passages, of the pancreas, the intestines, the kidneys and ureters, and anomalies of pregnancy.

4. Pulmonary Tuberculosis.—Bulstrode, in this, his concluding article on the causes, prevalence, and control of pulmonary tuberculosis, based upon careful investigation of the course of the disease during the past ten or more years in those countries where records have been kept, has shown that the disease has steadily decreased in those countries where the economic conditions have improved, although no special effort has been made by the authorities to control it; while the disease has increased in countries, like Ireland, for example, where the economic conditions have not improved. Therefore, he concludes that while the war against the tubercle bacillus should go on we must not consider that it is the only factor in the production of phthisis.

It must be remembered that environment, light, pure air, and water, good food, general contentment, and happiness are strong predisposing causes, and must not be lost sight of; and he urges that more attention be paid to these measures both in the prevention and treatment of tuberculosis.

5. Rash Following Revaccination.—Pierce reports a history of a very rare if not unique instance of two attacks of apparent varioloid following successful revaccination.

A boy of 15, whose primary vaccination took place when he was seven years of age, was revaccinated with a number of other boys in school on December 5, 1901. The course of the vaccination was normal in every way. On December 16th he went home, suffering from mumps, and on December 24th, 19 days after the vaccination, developed a typical smallpox eruption with mild, though decided constitutional disturbance.

February 22, 1902, he returned to school apparently perfectly well, and on March 6th again had a very characteristic smallpox rash without fever, which ran a mild course.

The possibility of reinfection could not be excluded, as a case of smallpox was present in a neighboring town on February 17th.

6. Richard Wagner.—Gould believes that the ill health of Richard Wagner, the character and severity of the symptoms being demonstrated by voluminous extracts from "The Life of Richard Wagner" was entirely due to eye strain produced by ametropia with astigmatism and anisometropia, which could have been entirely relieved by proper treatment, and contends that this was also true of other men of genius in the literary and musical world, who used their eyes for many hours daily and suffered greatly from ill health.

ARCHIVES OF PÆDIATRICS

June, 1903

1. A Review of the Work of the American Pædiatric Society, By J. P. CROZER GRIFFITH.
2. The Changes in the Management of Laryngeal Diphtheria Treated by Intubation, By E. ROSENTHAL.
3. The Paroxysms of Whooping Cough Treated by Pulling the Lower Jaw Downwards and Forwards. By J. V. G. SOUTHWELL.
4. Congenital Asymmetry or Hemihypertrophy in an Infant, By A. HYMANSON.
5. Intestinal Obstruction, By A. SCHACHNER.

2. Diphtheria Treated by Intubation.—Rosenthal observes that medical science can give no greater evidences of progress than the discovery of the specific treatment of diphtheria and the evolution of the intubation tubes. Under existing conditions tracheotomy has been superseded and intubation of the larynx should now be practically the only operation for the relief of laryngeal stenosis. The author's indications for intubation as against tracheotomy formerly were: 1. Intubation always when no professional assistance as available. 2. Under the age of 4 it should always be preferred. 3. Between 4 and 7, intubate primarily and tracheotomize secondarily. 4. With loosened membrane or suspicion of the spread of the disease to the trachea tracheotomize. He now prefers intubation in all cases, except when the tube is too small, and does not go to the seat of the obstruction, or when the loosened membranes might be pushed into the trachea by the tube. The advantages of intubation are speed of operation, bloodlessness, lack of shock.

Its disadvantages are, it clouds the prognosis, tendency to heart failure, danger from pushing down the false membrane, and suffocation by the fingers in introducing the tube, difficulty in nourishing the patient, difficulty in deciding when to remove the tube. Before and after intubation the throat and larynx are sprayed with peroxide of hydrogen. The author classifies laryngeal diphtheria as primary when it begins primarily in the larynx, and secondary, when it begins in the fauces, nose, or tonsils and extends to the larynx, or when it is a complication of another disease. The primary cases may be treated by serum injections or with the addition of intubation if the laryngeal stenosis is not relieved. In the secondary cases intubation should be performed as soon as the diagnosis is made. After intubation, the tube having been introduced in a perfectly aseptic condition, and of a size referable to the size and condition rather than the age of the child, one should administer suitable quantities of food, liquid if possible, semi-solid or solid if necessary. Pain or restlessness must be soothed by suitable doses of opium. The lumen of the tube must be kept pervious by spray or gargle of peroxide of hydrogen, and it must be taken away as soon as there is evidence that the stenosis has been relieved. The danger of heart failure is to be counteracted by suitable hypodermic injections of strychnine.

***3. Whooping Cough Treated by Traction of the Jaw.**—Sobel gives the following results of his experience: 1. Pulling the lower jaw downwards and forwards will usually control spasms of whooping cough. 2. The older the child the more successful the treatment will usually be. 3. In cases without a whoop the expiratory spasm with its asphyxia will generally be overcome, and in those with a whoop the whoop will be prevented. 4. This means of treatment is as successful as any single drug. 5. Mothers and attendants should be instructed in its use. 6. The manipulation is harmless, painless, and easy of application. 7. The only contraindication is the presence of food in the mouth or œsophagus. 8. Sequelæ are less frequent with this treatment than with drugs. There is better convalescence, less exhaustion, and less emaciation. 9. The same method of treatment is recommended for laryngismus stridulus, pressure of enlarged cervical and bronchial glands, influenza, and spasm of the glottis in catarrhal laryngitis. 10. This method of treatment does not preclude the advisability of supporting and sustaining the patient, guarding his gastrointestinal tract, establishing equilibrium in the nerve centres, and affording the best hygienic advantages. 11. The method is particularly indicated in cases complicated with diffuse bronchitis, bronchopneumonia, convulsions, epistaxis, subconjunctival or subcutaneous hæmorrhage, sublingual ulceration, and in cases predisposed to complications by the existence of a dyscrasia.

4. Congenital Asymmetry.—H y m a n s o n thinks this deformity, possibly including an entire half of the body, begins in foetal life. Thirty cases have been recorded. It may be due to a congenital lesion of the vasomotor centres, to a fault

in the middle layer of the blastodermic membrane, to partial intrauterine strangulation, or to an inherent tendency of the tissues to appropriate an excess of nutriment. The author is inclined to accept the first of these hypotheses. Most of the hypertrophied portions are on the right side. A finger, a limb or the entire half of the body may be involved, all the tissues participating in the process. Even the viscera are similarly involved. Syphilis, traumatism, strong impressions, fright, and heredity have been suggested as causes, but they are only conjectural. Boys are more often affected than girls. The deformity is progressive to a certain age, and the affected side is susceptible to ulcerations. If only one limb is affected it may be mistaken for elephantiasis. The treatment may include massage, compression with an elastic bandage, the continuous electric current, etc.

PRAKTITCHESKI VRATCH.

May 31, 1903.

1. On the Question of Removing the Consequences of Accidental Incision of the Ureter in Operations.
By I. B. ONUFROVITCH (*Continued*).
2. On the Ætiology of Aneurysms, By I. V. LIFSHITZ
3. Naphthalin in Postpartum Endometritis,
By N. S. POLIANSKY.

2. Aneurysms.—Lifshitz presents the history of a case of aneurysm of the aorta in a man aged thirty-two years, of good physique, athletic in build, with a negative history of infectious diseases, alcoholism, and injury. The absence of any signs of arteriosclerosis and the youth of the patient were noteworthy. Syphilis is the chief cause of aneurysm in younger persons and that was excluded here. The occupation of the patient, however, may have had something to do with the cause of the aneurysm. The patient had been a soldier for five years and had been the blacksmith of the regiment, always being obliged to do a great deal of hard physical work. It has been noted recently that a continuous repeated traumatism or repeated rises of blood pressure due to exertion can produce an aneurysm, and the author believes that this factor was present in the causation of the patient's aneurysm.

3. Naphthalin in Puerperal Endometritis.—Poliansky used the following method in treating puerperal septic endometritis, at the suggestion of Kirsner made three years ago. Tampons of iodoform gauze soaked in 1:8 glycerin ichthyol and thickly powdered with naphthalin were inserted into the uterine cavity and renewed daily. This treatment is said to have given very prompt and satisfactory results.

Saturday, June 7, 1903.

1. A Case of Primary Cancer of the Head of the Pancreas and of Cystic Degeneration of the Rest of this Organ,
By A. S. MANUILOFF.
2. On the Treatment of Accidental Wounds of the Ureters During Operations (*To be continued*),
By I. B. ONUFROVITCH.
3. A Case of Congenital Absence of the Uterus and of Atresia of the Vagina,
By N. DOMBROVSKY.

1. Cancer of the Pancreas.—Manuiloff reports a case of primary cancer of the pancreas in

a woman aged fifty years, whose illness dated nine months previously. She entered the hospital simply complaining of pains in the abdomen and general weakness, but her symptoms were very plainly those of complete destruction of the pancreas. The remarkable feature in this case was the total absence of glycosuria. In twenty-two other cases of pancreatic cancer the author found that glycosuria was absent. The patient was markedly cachectic, the abdomen was enlarged, contained a quantity of fluid, and there was œdema of the extremities. After the abdomen had been tapped and about 3500 c. c. of fluid had been removed, the examination showed the presence of a tumor in the region of the pancreas, and a fluctuating mass beneath the edge of the liver. The patient died of exhaustion, and the autopsy showed the presence of primary cancer of the head of the pancreas and cystic degeneration of the body and tail. There was, in addition, cirrhosis of the liver, chronic interstitial nephritis, parenchymatous hæmorrhages in the intestines, etc. According to Guillon, who devoted a thesis to this subject, glycosuria is not a constant symptom of cancer of the pancreas, and its absence in this case is chiefly noteworthy on account of the complete destruction of the pancreas, necessarily arresting its functions. Chronic interstitial nephritis is a usual accompaniment of these cases.

3. Atresia of Vagina and Absence of Uterus.

—Dombrovsky's case is of special interest, because the deformity in question was not suspected "until the last moment" by either husband or wife, the patient being a married woman. The patient was a young woman aged twenty years, who applied for relief because she had never menstruated. The vagina presented a small pocket which ended in a wall of muscular and mucous tissue. Nothing like a uterus could be felt through this wall. On rectal examination a small body of the size of a walnut could be felt in the pelvis, and from this two tense cords were distinguished, passing to the sides of the pelvic wall. This body was probably a rudimentary uterus and the cords the Fallopian tubes.

VRATCHEBNAIA GAZETA.

May 31, 1903.

1. On Transverse Positions of the Fœtus, with Prolapse of the Hand, By I. S. GERMANN.
2. On Gonorrhœal Urethritis in Boys, By V. I. DOUKELSKY (*Continued*).
3. The Treatment of Fractures of the Clavicle by Massage, By E. E. KERESH.
4. A Case of Intestinal Concretion,

By O. P. SIBIRTSEFF.

1. **Transverse Presentation.**—Germann, in a practice of twenty-three years as a country doctor, observed 19 cases of transverse presentation with prolapse of the hand. He reports the histories of all these cases. In two cases the hand had been torn off as the result of manipulation by "wise women" and the patients died before the physician had arrived (one patient was twelve, the other twenty-seven, miles away from the nearest physician). In one there was spontaneous version, in six podalic version was performed, in

ten cases the child was disemboweled on account of impaction of the trunk and collapse of the mother. In one of these the operation was performed without cutting through the spine of the fœtus, in the rest this had to be done in order to remove the child. Of the 17 mothers, 11 remained alive after the delivery. In no case was chloroform used. The frequency of eventration in these cases is due to the fact that the distances of the patient's houses from the physician were very great and that he was called when the cases were already far advanced and the fœtuses deeply impacted in the pelvis. The article forcibly illustrates the difference between city and country practice.

3. Massage in Fractures of the Clavicle.

—Kekeresh has used massage in the treatment of fractures of the clavicle in a number of cases in country practice. He applied a simple sling in the more sensible patients, but in most of them he used an immobilizing bandage with pads of cotton over the clavicle and rolls of the same material in the hollows above and below. This was applied after each massage. The latter was begun usually on the second day after the fracture, and lasted ten or fifteen minutes. During the first week the massage was performed twice daily, the following week once daily. The act consists of stroking the clavicle from side to side, to replace the fragments, of kneading the muscles, the ecchymosis, and the periosteum about the fracture, and finally of massage of the surrounding tissues with the flat hand. In the beginning of the third week the patient is discharged and is told to rub the callus for another week to diminish its size. After the third day the patient begins to perform active motions on the style of the Swedish free movement, before each massage.

4. Intestinal Concretion.

—Sibirtseff reports the case of a boy, aged sixteen years, who complained of a growth in his abdomen that had been increasing very slowly since early age. This growth was movable and caused pain on walking, etc. The swelling was the size of a large fist, hard and smooth, and situated chiefly on the right side of the abdomen, but movable to the left. Laparotomy revealed a ball of matted hair in the small intestine. No history of a habit of chewing hair could be obtained. The hair was so closely matted together that the ball looked like a stone.

Stavka, Jan. 7, 1903.

1. *Tic Convulsiv* in Children, By A. N. SCHKARINE.
2. Recurrent Bilious Typhoid, and Facial Erysipelas, By J. T. NEISTAB.
3. A Case of Intestinal Obstruction Recovered Three Times, Recovery, By A. P. BORKOFF.
4. Gonorrhœal Inflammation of the Urethra in Boys, By V. I. DOUKELSKY.

4. **Gonorrhœa in Boys.**—Doukelsky concludes his study of gonorrhœal urethritis in boys as follows: Cases of so-called catarrhal urethritis in boys are in the majority of instances gonorrhœal in origin. Every case of urethritis in boys should be examined for the presence of gonococci in the discharge. In order to make a diagnosis of gonorrhœa, it is necessary to find the typical

gonococcus, within the pus cells, and to decolorize the specimen with Gram's method. Gonococci in all probability have no affinity for symbiosis with other germs. The course of a gonorrhœa in a boy with a circumcised prepuce differs from that in a boy with an intact prepuce. In the latter it is often complicated with balanoposthitis and phimosis, and sometimes these complications materially interfere with the diagnosis of this condition. Servants are very frequently the source of contagion in gonorrhœa of boys as well as girls. The author recommends the adoption of a system of examining servants for the presence of venereal diseases.

REVISTA DE ESPECIALIDADES MEDICAS.

July 5, 1903.

1. Influence of Alcohol Upon Gastric Digestion,
By GONZALEZ CAMPO.
2. So-Called Mercurial Stomatitis,
By D. L. SOBIRANO MATAS.

1. **Alcohol and Gastric Digestion.**—Campo gives the results of his analysis of the stomach contents of nine patients after ingestion of test meals to which alcohol was added. Ewald's test breakfast was used with and without alcohol; the stomach contents being extracted sixty minutes after ingestion of the meal. A mixed meal of roast beef 100 gm., bread 50 gm., and water 200 gm. was also given with and without alcohol, and after this meal, the stomach contents were extracted two hours after ingestion. One case is illustrative of the results in all. A healthy man of 23, Ewald's breakfast alone; 48 c. c. extracted from stomach sixty minutes after ingestion. Total acidity 57 in 100. Ninety minutes after the meal, no fluid could be extracted from the stomach. Ginzburg's test for free HCl. gave a positive reaction in this as in the remaining cases. The addition of alcohol to the breakfast gave the following results: With 10 c. c. of cognac, the fluid extracted from the stomach at the end of sixty minutes amounted to 76 c. c. Total acidity 93 per 100. After ninety minutes 15 c. c. was extracted from the stomach; after two hours but a few drops of fluid. With 60 c. c. of cognac, the amount extracted from the stomach at the end of sixty minutes equaled 75 c. c. Total acidity 92 in 100. After two hours 8 c. c. extracted. After the mixed meal (beef, bread, and water) 107 c. c. of fluid was extracted two hours after eating; 94 c. c. after two hours and thirty minutes, and 29 c. c. after three hours. Total acidity 63 per 100. Complete evacuation of the stomach at the end of three hours and a half. After the addition of 10 c. c. of cognac to this meal, the fluid collected at the end of two hours amounted to 125 c. c. After two hours and thirty minutes 107 c. c.; three hours, 58 c. c.; three hours and a half, 16 c. c. Total acidity 93 per 100. After addition of 60 c. c. of cognac the amount extracted from the stomach at the end of two hours equaled 119 c. c.; after two hours and a half, 103 c. c.; three hours, 42 c. c., and three hours and a half, 15 c. c. Total acidity 94 per 100. Similar results were seen in patients suffering from hyperchlorhydria. These experiments, in the author's opinion, demonstrate that the evacuation of the stomach contents is con-

siderably retarded by the use of alcohol; and that ingestion of that fluid, in any amount, with the food, stimulates the secretion of the stomach, but depresses its motility; he therefore concludes that the use of alcohol is highly prejudicial to gastric digestion in health, and still more so in hyperchlorhydria.

2. **Mercurial Stomatitis.**—Matas holds that the term mercurial stomatitis should be eliminated from medical nomenclature, as in reality but two varieties of stomatitis exist, i. e., specific and septic. To the latter class, in his belief, belongs the so-called mercurial stomatitis. The mercury introduced into the system, being eliminated largely by the buccosalivary glands, changes the chemical composition of the saliva, irritates the mucosa, and weakens the defensive power of the leucocytes; thus rendering the whole buccal cavity more vulnerable. Thus the symptoms seen in mercurial stomatitis are nothing more than the expression of a septic infection which is more or less intense according to the general and local condition of the patient. That this is true he believes is proven by the absence of mercurial stomatitis in the aged who have lost their teeth, in young children without teeth, and in those who scrupulously observe buccal hygiene. Mercury is therefore but the provocative agent of stomatitis and not the direct pathogenic agent; this latter being found in the buccal polymicrobism constantly present. For this reason he believes it to be inadvisable to withdraw mercury when, in the course of antisyphilitic treatment, stomatitis appears; as the problem has to deal solely with buccal disinfection, rigorous hygiene, and cleanliness. The teeth and interdental spaces should be thoroughly cleansed, decayed roots extracted, all infectious foci destroyed and the mouth washed three times daily with an antiseptic. Patients under mercurial treatment should be seen once in eight days, and any congestion of the germs treated with iodine. He holds that no physician should begin a course of mercurial treatment without first sending his patient to the dentist, and seeking his cooperation in the care of the patient's mouth during such treatment.

PRESSE MEDICALE.

July 22, 1903.

1. Remarks on the Formation of Deposits of Urates (Particularly in the Gouty Kidney),
By E. BRISSAUD and M. BRÉCY.
2. Chemical Diagnosis of Hyperchlorhydria by Examination for Soluble Amylaceous Material,
By LÉON MEUNIER.

1. **Uritic Deposits.**—Brissaud and Brécy draw their conclusions from a case of typical gout under their observation for several months. These are, first, that uratic infiltration, which in cartilage invades as many cells as the basic substance, has not, in the kidney, any exclusive preference for intercanalicular tissues; it is as often intracanalicular. Intracanalicular concretions become covered with needle-like crystals which perforate the cellular passages; whence results the complex aspect of certain anatomical preparations of which interpretation, at first sight, seems

impossible. Second, "the time necessary for the quadriurate to convert itself into the biurate varies according to the quantity of quadriurate present in the blood, and the proportion of saline constituents of the blood" (Le Gendre). They note the rapidity with which the biurate can penetrate the fibrocartilage of the ear; evidently uratic discharges in other parts of the organism are and offer one, based upon the choluria.

2. **Hyperchlorhydria.**—Meunier's conclusions are that the amount of total and hydrochloric acidity is not sufficient to characterize a hyperchlorhydric gastric juice. He would consider as hyperchlorhydric only that gastric juice, which, after a Ewald meal (60 grammes of stale bread and 250 grammes of weak, unsweetened tea), presented an exaggerated or even a normal acidity, besides containing in solution, (a) saccharine substances reducing Fehling's solution, which, estimated as dextrose, are inferior to 10 grammes in 100 c. c.; (b) or better, soluble substances, derived from starch, which, primarily transformed into dextrose, give a quantity of dextrose inferior to 20 grammes in 1000 c. c.

July 25, 1903.

1. The Variations of the Nutritive Cellular Coefficient,

By JEAN MITULESCO.

2. Splenectomy in Banti's Disease, By JEAN ROGER.

1. **The Nutritive Coefficient.**—Mitulesco, among other conclusions, states that proteid transformation is greater in small persons than in large; that it is more pronounced in a growing child; that it is diminished in old age. Nitrogenous elimination decreases during a fast; it is increased just before death, because the fat of the organism being used up, recourse must be had to the protoplasmic proteids. In hunger, the mineral salts diminish. During work, considerable potential energy is transformed into kinetic energy and, as dyspnoea is provoked, there is a marked proteid transformation, and in increased nitrogenous elimination. Nervous excitement and cerebral activity cause an elimination of carbon dioxide and phosphorus. Alimentary transformation is less during sleep, because muscular activity is less; however, it has been proved that although the combustion of fat is lessened, the proteid transformation is not. When the cellular power of assimilation is diminished, as in fever, the excess of decomposed proteid is furnished by the cells themselves; therefore the diet should be planned to meet this deficit.

2. **Splenectomy in Banti's Disease.**—Roger says he found in Egypt a disease resembling the disease described by Banti in that it presented an enormous hypertrophy of the spleen, hypertrophy of the liver, ascites, and hæmoglobinæmia. Although not identical with Banti's disease and not met with outside of Egypt, he thinks the name sufficiently accurate. He performed splenectomy in two cases with excellent results. His suggestions as to operation are to apply to the pedicle a provisional elastic ligature to prevent hæmorrhage, to remove the spleen with a cut of the scissors, and to replace the provisional ligature with a permanent one. Work as much as possible outside the abdomen.

LYON MEDICAL.

July 26, 1903.

A Case of Hysteria Major; Hysterical Fever,

By M. Lannois and A. Porot.

Hysteria Major.—Lannois and Porot state that their case, which manifested a continued fever of 41° C.; had daily, uncontrollable vomiting; passed blood and albumin; and yet gained 10 kilog. in weight; constitutes a clinical adventure which could happen only to an hysteric. The subject was 23 years of age, married, and the mother of two children. Nothing in her history was important, except an attack of diphtheria, with laryngeal complications, and hyperpyrexia, and these were found to exist simply in her imagination. The diphtheria was real, but the complications she had borrowed from a fellow-patient. From the Charité, she was taken to Saint Pothin, where the present writers examined her to find asthenia, impossibility of walking, alleged pain in the head, the back of the neck, and apnoea; anæsthesia to pricking, heat, etc.; some restriction of the visual field. Lungs, heart, stomach, quite normal. Hysteria would have been diagnosed immediately were it not for the irregularities of temperature, the anuria, the albuminuria, the vomiting, and the attacks of tetanus, repeated daily. However, 11 months of observation, together with the results of suggestion, and careful observation of hysterical stigmata, confirmed the diagnosticians' opinion. The supposed albumin was found to be *nitrosoluble*; in fact, an albumose. Blood found in the urine was discovered to come from self-inflicted wounds near the genitals. The anuria corresponded to crises of profuse perspiration. The irregular fever was apparently genuine. The gain in weight was the absolute proof of absence of any real pathological condition.

SEMAINE MEDICALE.

July 1, 1903.

1. Cancerous Degeneration of Simple Ulcer of the Stomach, By CÉTTINGER.

2. Exaggeration of Tendon Reflexes in Antitoxic Insufficiency, By J. GRASSET.

1. **Cancer and Simple Ulcer of the Stomach.**—Céttinger reports his studies on three cases of simple ulcer of the stomach which underwent cancerous degeneration. He points out the insidious approach of the malignant change and weighs carefully the differential points of diagnosis between the two conditions. He regards the presence of constant pain despite a careful régime, diet and appropriate medication, with increasing intensity, as almost pathognomonic of cancer. The lack of appetite and refusal of food is another sign of cancer not found in cases of ulcer. The character of the vomitus sometimes is helpful in distinguishing between the two conditions. The presence of a tumor is, of course, decisive; but equally important is a hypochlorhydria succeeding a hyperchlorhydria.

2. **Antitoxic Insufficiency.**—Grasset declares that in cases of severe autointoxication, such as uræmia and cholæmia, the exaggeration of the tendon reflexes is to be regarded as a sign of de-

iciency in the antitoxin producing function of the organism. This symptom is therefore of value in a prognostic way, and can be used therapeutically as an indication for phlebotomy.

BERLINER KLINISCHE WOCHENSCHRIFT.

July 13, 1903.

1. A Skull with Bilateral Ankylosis of the Jaw,
By VON HANSEMAN.
2. Ætiology and Specific Treatment of Autumnal Catarrh,
By DUNBAR.
3. Plague Bacillus and Plague Serum, By E. MARTINI.
4. Bactericidal Property of Radium Rays,
By R. PFEIFFER and E. FRIEDBERGER.

2. **Treatment of Autumnal Catarrh.**—Dunbar concludes that there can be no doubt that autumnal catarrh, so-called, which appears only in the United States, is caused by the pollen bodies of the golden rod and of some of the ambrosiaceæ, notably rag weed. The toxins derived from these sources—which Dunbar has prepared—differ from the toxins which he secured from the graminaceæ. The latter are, according to the author, the specific cause of hay fever. Curiously, the catarrh experimentally caused by the golden-rod pollen, was rapidly relieved in some cases by the use of the antitoxine derived from the graminaceæ. Attacks of hay fever asthma can be promptly relieved in some cases by the local application of the antitoxine.

Dunbar has now prepared a powdered form of the antitoxine and gives satisfactory reports of its use. He says it is not a substance which induces a habit, it has no unpleasant effects, and does not irritate the kidneys.

3. **Plague Serum.**—Martini writes in detail about the bacillus of the plague and the bacteriological diagnosis of the disease. He describes the preparation of the serum and says that while it kills the bacteria by dissolving them, it has no actual curative power.

4. **Bactericidal Action of Radium.**—Pfeiffer and Friedberger have experimented with fifteen milligrammes of radium bromide. Even this small quantity showed an intense radial activity. Cultures of typhoid and cholera bacilli subjected to the action of the radium for twenty-four hours showed no effect if the substance was kept at a distance of from six to ten centimetres; but if it was brought nearer the cultures, a distinct inhibition of growth was noted. The authors speak hopefully of the therapeutic effect of radium upon lupus and other cutaneous diseases.

ZENTRALBLATT FUER CHIRURGIE.

July 18, 1903.

1. Modification of Maydl's Operation for Congenital Ectopion of the Bladder,
By J. BORELIUS.

1. **Operation for Congenital Ectopion of the Bladder.**—Borelius suggests a modification of Maydl's well-known method. He first dissects loose the bladder with both ureters in elliptical form. The abdomen is then opened in such a way that the entire sigmoid flexure can be brought into the wound. A lateral anastomosis between the upper and lower folds of the sigmoid is then performed as near as possible to its mesen-

tery. The implantation of the bladder is then made into the angle formed by the two anastomosed portions of the sigmoid. The abdominal wound is then closed. A successful case is included in the article.

July 25, 1903.

- A New Incision for Removal of the Appendix in the Interval,
By EDWIN BEER.

New Incision for Appendicectomy.—Beer suggests a modification of Gerster's incision by leaving the posterior sheath of the uterus uninjured. This is accomplished by an incision just over a line connecting the umbilicus with the middle of Poupart's ligament, from one to two cm. internal to the external margin of the right rectus muscle. The cut must be as short as possible, from three to four cm. in length. The anterior sheath of the rectus muscle is opened and the whole muscle is then easily pushed toward the median line, rendering the semilunar line and the inferior epigastric artery visible. By making the peritoneal incision below the semilunar line and external to the epigastric artery, the iliac fossa is exposed to view sufficiently for the performance of the interval operation for appendicitis, for which the operation is most adapted. If it should prove that there is not sufficient room, the posterior sheath of the rectus can still be opened.

ZENTRALBLATT FUER GYNÆKOLOGIE

July 11, 1903.

1. Puerperal Inversion of the Uterus,
By ARTHUR DIENST.
2. Clamping the Uterine Arteries for Postpartum Hæmorrhage,
By A. LABHARDT.
3. Microscopic Technics of Sections,
By G. ZEPLER.

1. **Puerperal Inversion of the Uterus.**—Dienst records a case of a woman of thirty-one years of age, who was brought into the clinic seven months after the birth of her third child suffering from an inversion of the uterus. As usual, attempted reposition by pressure was impossible. Küstner's operation was then performed with entire success, the patient having an uneventful recovery. The operation consists in a section of the posterior vaginal wall, the insertion of the left index finger into the peritoneal cavity so that it lies in the furrow of the inverted fundus, followed by section of the posterior wall of the uterus for about two inches. The cut edge of the uterus is then seized with a bullet forceps and carried into the peritoneal cavity, while the fundus is easily pushed back with a blunt instrument, like a sponge holder. The uterus and posterior fornix are closed with catgut. The advantages of the posterior over the anterior incision of the uterus lie in avoiding the bladder, in the acquirement of greater space and in the possibility of more perfect hæmostasis, thus aiding in the avoidance of sepsis. Should such a patient again become pregnant, she requires the careful attention given to a woman who has had a cæsarian section performed.

2. **Clamping of Uterine Arteries for Postpartum Hæmorrhage.**—Labhardt reports an interesting case of a woman who was admitted in labor suffering from meningitis. There were

Cheyne-Stokes's breathing, rigidity of the neck, absence of the patellar reflexes, pupils contracted and not active in their response to light. To save the child, the cervix was dilated with Bossi's dilator. A living child was delivered in fifteen minutes. Despite the expression of the complete placenta, severe bleeding continued and a deep laceration of the cervix was found. The hæmorrhage did not cease with the usual treatment, and the uterine arteries were then compressed with muzeux forceps according to Henkel's suggestion. The bleeding ceased at once. The patient died of the meningitis, and at the autopsy it was found that the forceps had thoroughly compressed one uterine artery, but not the other. The author points out the danger of seizing the ureter, the intestines or the peritonæum by the blind application of the muzeux forceps, and yet does not wholly discountenance the method. The possibility of the development of a subsequent traumatic aneurysm of the uterine artery must also be borne in mind.

July 18, 1903.

1. Tetany Strumipriva in a Pregnant Woman,
By ARTHUR DIENST.
2. Repeated Fundal Incision in Cæsarean Section,
By S. FLATAU.

1. **Tetany in a Pregnant Woman.**—Dienst records the case of a woman who, during her pregnancy, developed such a large tumor of her thyreoid gland that it evoked the most grave and threatening symptoms. It was removed, therefore, and immediately thereafter the patient began to suffer from characteristic attacks of tetany with the most typical symptoms. Especially marked was the laryngospasm and the tetanic contractions of the diaphragm which seemed to be caused by the contractions of the uterus (contractions of pregnancy). On account of the viability of the child and the wretched condition of the woman, labor was induced. The condition of the woman during labor was most threatening, but as soon as it was over respiration became easier and the spasms ceased. Within ten days, however, the convulsions returned and are now present in a chronic form. Some improvement has been noted since the administration of thyreoid extract has been begun. Dienst attributes the ætiology of the tetany to the withdrawal of thyreoid secretion by the operation—which involved the removal of the entire thyreoid gland—while he regards the pregnancy as the exciting cause of the attacks.

2. **Repeated Fundal Incision in Cæsarean Section.**—Flatau highly endorses Fritsch's transverse incision of the fundus in the performance of Cæsarean section, as the uterus is rendered more accessible than by the perpendicular incision, hæmorrhage is less, and the wound contracts rapidly and completely. He reports a case in which the operation was necessary a second time, and in which he found the uterus free from adhesions and the scar in the fundus of the uterus was scarcely visible.

July 28, 1903.

- A Case of Simultaneous Extra-Uterine and Intra-Uterine Pregnancy,
By GEYL.

Simultaneous Extrauterine and Intrauterine Pregnancy.—Geyl reports the case of a woman, a thirty-five-year-old primipara, who had supposed herself to be four months' pregnant. Great abdominal pain, pain on moving about, a sensation of heaviness in the pelvis, and several fainting spells, compelled her to seek medical relief. The examination disclosed an enlarged uterus, a hard mass lying to the right of the uterus and deep in the pelvis, and elements that felt like the small parts of a fœtus, but their connection with the enlarged uterus was difficult to determine or to exclude. On account of great abdominal distension and symptoms of collapse, the abdomen was opened. A somewhat macerated fœtus was found lying among the intestinal coils, and connected with the mass low in the pelvis which was the placenta. During the manipulations, the placenta was partly torn from its bed and formidable hæmorrhage followed. The right broad ligament and the placenta were removed and the bleeding ceased. During the same night, an ovum, the size of an apple, was expelled from the uterus, but the decidual elements remained behind. The woman died of shock. The author calls attention to the great difference in length of time of development between the extrauterine fœtus, which represented four months, and the intrauterine ovum, which represented about three weeks. He does not regard the case as one of superfœtation. This is the first case in the literature in which the ova of both extrauterine and intrauterine fœtation have been seen.

MUNCHENER MEDIZINISCHE WOCHENSCHRIFT

July 11, 1903.

1. The Physiological Basis of Iodipin Therapy.
By U. WINKLER.
2. Intestinal Origin of Tuberculosis. (*To be continued*).
By E. NEBELTHAU.
3. Case of Sepsis Due to the Pneumonia Bacillus.
By F. JENNSSEN.
4. Disease with Meningeal Symptoms Caused by Meningococci Without Anatomical Lesions.
By E. R. HENNING.
5. Colloidal Oxide of Bismuth in the Intestinal Diseases of Infants,
By KINNER.
6. Essential Renal Hæmorrhage,
By PAUL WULFE.
7. Rubber Gloves in Aseptic Operations.
By A. HAMMESFAHR.
8. Toxines and Antitoxines (*Concluded*).
By M. GRÜBER and C. VON PIRQUET.
9. Cerolin, a Therapeutic Agent Derived from Yeast,
By E. ROOS and O. HINSBERG.

1. **Physiology of Iodipin Treatment.**—Winternitz states, from repeated experiment and observation, that oxidation is not increased or diminished by the medicinal doses of iodipin. Its favorable action as far as the nutrition is concerned is explained by its specific action upon syphilis, while it does not unfavorably affect the gastrointestinal tract so that nourishment is well taken and assimilated. The protracted excretion following the use of iodipin, recommends it in the treatment of bronchial asthma, of arteriosclerosis (syphilitic endarteritis), and of lead colic. Injected subcutaneously, it brings about a lowering of blood pressure.

8. Toxines and Antitoxines.—Gruber and von Pirquet conclude that there is no evidence to assume a multiplicity of qualitatively similar poisons derived from bacteria which possess different toxic virulence and varying avidity for antitoxines. The action of toxines is not to be regarded differently than that of other poisons circulating in the body. The transformation of toxines into non-toxic combinations (toxoids) with no change in the affinity for antitoxines, may be possible, but is not proven. Toxines and antitoxines possess weak chemical affinities and together form easily dissociated combinations or molecular combinations in varying proportions. This fact explains the long incubation of toxic action.

The formation of antitoxin has nothing to do with the toxic action or with cell immunity. This is proven in various ways, such as the fact that many innocuous substances evoke the formation of antibodies, and many animals not susceptible to certain toxines nevertheless create antitoxines; further, despite the abundant presence of antibodies, susceptibility to toxines may remain and even increase; cell immunity can be acquired even in the absence of antibodies, and lastly, the formation of the antibodies occurs in an entirely different place than the action of the toxines.

Specific antibodies are not parts of the normal organism. They are not formed until foreign substances are introduced and are more like internal secretions. The non-toxic combination of toxine and antitoxine is incapable of evoking the formation of further antitoxine; for the chemical character of the combination is entirely different than that of the uncombined substances.

Finally, the ability to call forth antibodies depends upon some peculiar property, not yet known, of chemical character residing in the toxines. An essential condition seems to be, for antibodies as well as for toxic action, a chemical combination of the foreign substances with certain parts of the cell.

ZEITSCHRIFT FUER GEBURTSHILFE UND GYNÆKOLOGIE.

Band 49, Heft 2, 1903.

1. Two Unusual Uterine Cancers, By E. OPITZ.
2. Endothelioma Cervicis Uteri, By P. KIRSCHGESSNER.
3. Statistics and Diagnosis of Twins, By P. SEEGER.
4. Syncytiolysis and Hæmolysis, By R. SCHALTEN and J. VEIT.
5. Etiology of Ovarian Adenoma, By M. WALTHARD.

1. Two Unusual Uterine Cancers.—Opitz reports the case of a mixed adenoma carcinoma and sarcoma in a woman fifty-seven years of age. The starting point of both tumors seemed to be the mucosa of the uterus. Opitz suggests an hypothesis that the same influence which caused the epithelium to become cancerous was the cause of the sarcomatous degeneration of the connective tissue, in other words, that the cause of carcinoma and sarcoma are due to some identical, as yet unrecognized, origin. The second case was that of a polyp removed from a woman of fifty-eight, which proved to be cancerous. Macroscopically it appeared to be a cancer of squamous epithelial origin. This case is unique, occurring as it did in a mucous polyp originating in the uterine mucosa.

4. Syncytiolysis and Hæmolysis.—Scholten and Veit say that it is generally recognized that foetal elements enter the maternal blood. Veit regards the changes in the blood of the mother as due to deportation of chorion and to a reflex influence of the chorionic epithelium upon the red and white blood cells. By employing Ehrlich's side-chain theory, the authors assume the formation of a syncytiolysin as a side chain for the red blood cells and of a hæmolysin as a side chain for the chorionic epithelium. The subject cannot further be considered here, but it may be remarked that frequently in eclampsia and in women with the "kidney of pregnancy," hæmoglobinuria is seen, and the application of the authors' theory of side chains and chorionic deportation may clear up some of the mysteries of foetal physiology and of the physiology and pathology of pregnancy.

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

July 9, 1903.

1. Active Immunization Against the Plague by Attenuated Cultures, By W. KOLLE and R. OTTO.
2. Contribution to Amaurotic Family Idiocy, By B. SACHS.
3. Diagnosis of Malignant Thoracic Growths During Life, By A. FELDT.
4. Intraabdominal Torsion of the Omentum, By O. NORDMANN.
5. Influence of Heat on the Coagulation of Cow's Milk, By W. SILBERSCHMIDT.
6. Statistics of Diphtheria Antitoxine, By PULAWSKI.

1. Immunity Against the Plague.—Kolle and Otto report that they obtained far greater immunity against the plague by injecting living attenuated cultures than when they injected dead cultures either attenuated or virulent. When this injection was repeated a few times in guinea pigs, rats or mice, an immunity was obtained which lasted for months in its complete form.

2. Amaurotic Family Idiocy.—Sachs reports an additional case of this rare condition, with autopsy. He was the first to describe the disease. The condition is due to an affection of the central gray substance of the brain and spinal cord. A simultaneous degeneration of the white fibres of the anterior and lateral tracts is regarded as secondary. Sachs does not regard the degenerative changes as of a toxic origin, but as due to developmental defects which do not come to the surface until a certain age has been reached.

4. Torsion of the Omentum.—Nordmann emphasizes the difficulty of diagnosing this condition. He reports two cases complicating hernias, and says that its origin is usually traumatic, that is, due to attempts at forcible reduction of the hernia.

5. Coagulation of Cow's Milk.—(Concluded.)—Libberschmidt finds that experimentally the greater the heat and the greater the length of time of its application, the greater the delay in the coagulation of cow's milk. This is due to the acid forming bacteria and to the rennet. The higher the temperature, the finer became the coagula of rennet coagulation. The author con-

cludes that raw milk is only exceptionally to be advised; since it coagulates in large masses, it demands more labor on the part of the gastric muscles, and becomes less susceptible to the action of the digestive fluids. If, on the other hand, the milk is cooked too long or raised to too high a temperature, it coagulates with difficulty with rennet and demands higher acidity on the part of the gastric juice. Libberschmidt recommends pasteurization, the preservation of milk in a cool place, and its earliest possible use.

MONATSSCHRIFT FUER GEBURTSHILFE UND
GYNÆKOLOGIE

Vol. XVII, Section 1

1. Unusual Form of Chorioepithelioma.
By C. FREISCHMANN
2. Operative Treatment of Myomata During Pregnancy.
By FRANK.
3. Neoplasms of the Round Ligament. By O. NEBESKY.
4. Accumulation of Various Growths of the Genital Tract.
By O. FRANKL.
5. Anatomy of the Lymph Channels in the Human Ovary,
By O. POLANO.
6. Operative Treatment of Uterine Rupture,
By N. KOLOMENKIN.
7. Comparative Anatomy of the Nerve Supply of the
Uterus, By S. PISSEMSKI.

2. **Treatment of Myomata in Pregnancy.**—Frank reports seven cases of his own and considers the operative treatment as necessary, 1. in pregnancy, when there is rapid growth with disturbances of the circulation and of respiration, and if it appears that the myoma may cause an interruption of the pregnancy; if there are peritoneal irritation and evidence of impaction or of obstruction; if the myoma is of a polypoid character or appears in the cervix. 2. During labor. The myomata must be enucleated, if it is evident that the child cannot be born without its removal; perforation must be practised if the after coming head cannot pass the obstruction, if the child is dead or the mother has a rise of temperature. If the myomata are situated high up in the uterus, a possible enucleation from above must be practised, or possibly cesarean section with castration, with or without hysterectomy.

4. **Accumulation of Growths.**—Frankl records the case of a woman of forty-four years of age, from whom were removed a myoma, the size of a foetal head, which lay intraligamentously on the left side, two cystic tumors arising from the left appendages, and the right ovary which had a peculiar silky covering. The smaller of the cysts, apparently of parovarian origin, had developed between the folds of the broad ligament, lay upon the larger one and contained a small nodule apparently composed of muscle fibres. On the surface of the nodule, several glandular follicles were noted, retention cysts were present and the whole was covered with a single layer of cylindrical epithelium. This suggests a parasalpinx as the source of origin.

6. **Operative Treatment of Rupture of the Uterus.**—Kolomenkin narrates five cases which were subjected to operation, and all recovered.

Three times, an abdominal hysterectomy was performed, once a vaginal hysterectomy and once Porro's operation. In considering the literature, clinical observation and statistics, the author concludes that, so far as treatment is concerned, there is no essential difference between complete and incomplete rupture of the uterus. Operation yields better results than conservative treatment, and only in exceptional cases, should laparotomy with suture of the rupture be performed. The best results are accomplished by total abdominal extirpation of the uterus with drainage into the vagina. Operation must be performed as soon as possible.

AMERICAN MEDICINE.

August 8, 1903.

1. Acute Articular Rheumatism. By THOMAS McCRAE.
2. Beriberi, or a Disease Closely Resembling It, Met in Chinese Fishermen Returning to San Francisco from Alaska. By DONALD H. CURRIE.
3. Emotions as Symptoms. By HENRY S. JONSON.
4. Osteitis Deformans: Report of a Case,
By H. J. SOMMER.
5. An Interesting Case of Pigmentary Degeneration of the Retina (Retinitis Pigmentosa),
By WALTER L. PYLE.
6. The Education of the Young in Sexual Matters: A Lesson in Defeating Quackery,
By A. ROBIN.

1. **Rheumatism.**—McCrae reports the cases of acute articular rheumatism that occurred in the Johns Hopkins Hospital between 1901 and 1903. Of the 37 cases, 4 died in the hospital, or nearly 11 per cent. In the 270 cases that had previous to this time been admitted to the hospital there were only 3 deaths. These statistics show that it is not only such diseases as typhoid fever and pneumonia that vary in severity according to the epidemic. The author makes a systematic study of the cases and analyzes them thoroughly. With regard to treatment he has little to say, as there have been no striking departures from the methods of previous years. The alkalies, the iodide of potassium and counter irritation are the chief measures to be employed. For the heart complications, both as a prophylactic and curative measure, nothing is perhaps so good as complete rest in bed. It is difficult at times to know how long the rest treatment should be persisted in. Diagnosis is not always easy. The author reviews the chief sources of error.

2. **Beriberi.**—Currie has collected in all nine cases which he reports in detail. There were four deaths. It is not at all likely that he succeeded in collecting more than a small proportion of the cases that have occurred. Previous to the present year there were only cases of epidemic dropsy. During the year cases showing motor symptoms have prevailed. The disease as observed in this country does not differ in any respect from beriberi as seen in Canton, except that the American type is more fatal. How the disease originated it is impossible to say. These cases, according to the author, are the first that have been recorded originating in the United States or in such an extreme northern latitude.

4. **Osteitis Deformans.**—Sommer's case is a remarkably typical example of this disease. He has reported his case in a most detailed manner, giving tables of measurements, reproductions from photographs and the temperature chart. The patient finally died, but it was impossible to obtain an autopsy.

5. **Retinitis Pigmentosa.**—Pyle's patient was 54 years old. With the exception of his ocular affection he was apparently in the best of health. The case presents the following interesting points: (1) The accurate and comprehensive family history which could be traced for over a century. (2) The absence of any history of consanguinity. (3) The absence of serious ocular disease in any other member of the family. (4) The long retention of serviceable central vision despite contraction of the visual fields to within 5° of the fixation point. (5) The remarkable preservation of accurate color perception and sense of color-difference. (6) The noteworthy compensatory development of the sense of touch and hearing, estimation of distance, sense of location, etc.

MEDICAL RECORD

August 8, 1903.

1. Some Comparative Examinations of Breast Milk and Cow's Milk, and the Effect of the Addition of Alkalies and Other Antacids to Cow's Milk,

By CHARLES GILMORE KERLEY, ALBERT H. GIESCHEN, and
GEORGE T. MYERS.

2. The Influence of Heredity on the Eye,

By JOHN E. WEEKS.

3. Treatment of Trachoma, By J. HERBERT CLAIBORNE.

4. Electricity in the Treatment of Diseases of the Stomach,

By E. G. MARSHALL.

5. A Contribution to the Study of the Intercostal Phonation Phenomenon and the Litten Diaphragm Phenomenon,

By ALBERT ABRAMS.

6. Some Dangers of the Hot Water Bottle as Applied to the New-born,

By DOUGLAS H. STEWART.

7. Artificial Fluorescence of Living Human Tissue,

By WILLIAM JAMES MORTON.

1. **Breast Milk and Cow's Milk.**—Kerley, Gieschen, and Myers, in their study of the alkalinity of breast milk and cow's milk, have reached conclusions so much at variance with the generally accepted beliefs on the subject that they have deemed it necessary to give in detail an account of their work and the methods they have employed in making their determinations of the acidity. They formulate the following conclusions as the result of their investigation: (1) Breast milk and cow's milk are both acid. (2) The litmus test for milk is unreliable, because of the variation in the quality of litmus paper, and the litmus taking part in the reaction and not acting as an indicator. (3) The effect of adding lime water or bicarbonate of soda to feedings is to retard or inhibit the formation of curds by rennet. (4) The teaching that lime water, bicarbonate of sodium, or bicarbonate of potassium should be added to fresh milk or feedings simply because they are antacids is erroneous. (5) The addition to milk or feedings of alkalies or salts that become alkaline in solution is an empirical method of aid-

ing digestion by preventing the formation of dense curds that would slowly leave the stomach and be difficult of digestion in the intestine.

2. **Heredity and the Eye.**—Weeks enumerates in succession the peculiarities of form and function and the tendencies to degeneration and disease that can be transmitted from parent to offspring, often through several generations. His paper shows that heredity may influence the eyes in no inconsiderable degree.

3. **Treatment of Trachoma.**—Claiborne, for the purpose he has in view, disregards the fact that trachoma may be acute and chronic, and studies the treatment of this affection under the following classification: (1) Non-inflammatory trachoma. (2) Egyptian or military ophthalmia. (1) The non-inflammatory form is characterized by the existence of sago-like grains on the mucous surfaces of the upper and lower lids. The granulations must be on both lids. That variety in which the granulations appear only on the lower lid is the one known as follicular. Whether or not this form of trachoma be the beginning of the non-inflammatory kind the author does not know. Non-inflammatory trachoma is contagious. (2) Egyptian ophthalmia is characterized by three stages of development: (a) Acute inflammation, lachrymation, photophobia, and great discharge. Granulations form on both lids, both on the exposed surfaces and in the retrotarsal folds. (b) In the second stage the granulations coalesce. (c) The stage of cicatrization with the formation of pannus and opacities of the cornea. Treatment.—The treatment of all trachoma is medical or surgical, or a combination of the two. In the non-inflammatory kind, that characterized by frog-like spawn granulations, the operation of expression alone followed by appropriate after treatment is indicated. The best instrument with which to accomplish expression is the roller forceps of Knapp. In the inflammatory form, the so-called Egyptian ophthalmia, expression followed by mild astringents and finally by the copper stick is indicated so long as there are granules present in reasonable quantities. When the disease has passed the granular stage and is in the cicatricial, copper sulphate alone, or in combination with other remedies, is indicated.

4. **Electricity in Diseases of the Stomach.**—Marshall reviews the progress that has been made in the electric treatment of diseases of the stomach. He considers that better results are obtained by using stomach electrodes than by percutaneous electrization. At first he used the electrodes devised by Einhorn, more recently he has devised an electrode of his own, which he believes, gives better results. The author recommends that intra-gastric electrization be not resorted to except in those cases that have failed to yield to medicinal and dietetic treatment. When these means have failed electric treatment will, at times, be found of inestimable value.

6. **The Hot Water-bottle and the New-born.**—Stewart asserts that injury to the new-born infant is not infrequently due to the reckless use of the hot water bottle. Intracranial hæmorrhage,

eclampsia, convulsions, and death are some of the too frequent consequences of extensive burns. Burns about the buttocks, the lower back, the occiput or about the navel are the most likely to lead to fatal convulsions. Overheating in the neighborhood of the carotids is the form of injury most likely to lead to cerebral lesions.

7. Fluorescence of Living Human Tissue.—Morton calls attention to the possibility of rendering human tissue fluorescent by saturating it with substances which under the influence of certain chemical rays become fluorescent. Quinine is a substance which under such conditions develops the power of emitting a violet ray. The possible practical application of this phenomenon would appear to be in connection with the treatment of various diseases by means of the x ray. For the past year, Morton, has been in the habit of administering from five to ten or more grains of quinine about one hour before x ray treatments. He believes that cases treated by a combination of fluorescent medicines and the x ray have made more improvement and more certain recoveries than patients not treated by the combined method. He believes that the method is of sufficient promise to warrant his calling the attention of other investigators to it.

MEDICAL NEWS.

August 8, 1903.

1. Acute Non-suppurative Encephalitis: with Report of a Case, By HARLOW BROOKS.
2. The Form of the Ureter, By BYRON ROBINSON.
3. A Simple and Rapid Chromatin Stain for the Malarial Parasite, By FRANCIS CARTER WOOD.
4. The Choice of Technics in Operating Upon Prostatic Obstruction, By CHARLES H. CHETWOOD.
5. So-called "Stomach-ache,"
By PAUL COHNHEIM. Translated by WILLIAM GRAY SCHAFFER.
6. Resection of the Left Pelvis for Osteosarcoma,
By M. STAMM.
7. The Palliative Treatment of Fibroid Tumors of the Uterus, By AUGUSTIN H. GOELET.

1. Encephalitis.—Brooks believes that acute non-suppurative encephalitis is far more common than is generally supposed. It is often unrecognized both in cases that recover and in those that end fatally. Its symptomatology is similar to that of many other diseases, and the gross lesions produced may be so slight as to escape detection at an ordinary post-mortem examination. Microscopical examination, in at least a considerable number of instances, is the only possible method of certainly detecting the condition, and it is necessary, even then, that such an examination be made in the most thorough manner. The conception of the ætiology of the disease that has prevailed up to the present time is, the author believes, too narrow. He believes that any agent that is capable of exciting inflammation in any organ of the body must be held capable of producing the form of encephalitis under consideration. Brooks wants to call special attention to the fact that the pathology of acute non-suppurating encephalitis is identical to similar processes affecting other organs. The history of one case

is given in detail, and the microscopical findings are reported with great minuteness. The autopsy protocol is omitted as it showed nothing abnormal. It was impossible to determine the origin of the disease in the reported case. A toxæmia was probably the direct cause of the lesions, but whether this toxæmia was of bacterial, metabolic or drug origin, it was impossible to say. The following is a summary of the chief lesions of the nervous system: (1) Cerebrospinal meningitis, probably secondary to cerebritis and of the "cellular" type as described by Delafield and Prudden. (2) General non-septic cerebritis affecting all parts of the cerebrum, but most marked in the cortex and particularly so in that of the motor area. (3) Degeneration of many of the ganglion cells of the cortex. (4) Degeneration of many of the fibres arising from the large pyramidal cells of the cortex, most marked in those derived from the motor areas. (5) Diffuse degeneration of many of the fibres passing through both internal capsules. (6) Inflammation of the tissues of the cerebellum, of much less marked degree than in the cerebrum, but apparently of the same character. (7) Degeneration of many of the descending fibres of pons and medulla. (8) Degeneration of the chief descending tracts of the spinal cord. (9) Slight, probably secondary cytoplasmic degeneration of the ganglion cells of the anterior horns of the spinal cord.

2. Form of the Ureter.—Robinson discusses the variation in the calibre of the ureter. His paper is based on the study of ten ureters which he injected with paraffin.

3. Chromatin Stain for the Malarial Parasite.—Wood discusses the various chromatin stains and calls attention to their advantages and disadvantages. He recommends the following method for staining fresh specimens: Fix the preparation for one minute in strong methyl alcohol, wash off in water and stain the slide for a few seconds with a one-tenth per cent. aqueous solution of yellowish eosin. The surplus of the eosin solution should be poured off and a few drops of a one-fifth per cent. solution of methylene azure poured over the slide. The staining will be complete in from one-half to one minute, and the slide may then be washed. A method for staining old preparations is also given.

4. Prostatic Obstruction.—Chetwood asserts that the time has about arrived when patients with permanent prostatic obstruction should be advised to submit to operation early and not wait until serious secondary conditions have developed. The question that now has to be settled is the choice of technics. There are two general types of operations from which to choose; those having prostatectomy for their object and those having prostatotomy. Of the two the latter are the least dangerous and, if the results prove as favorable, should be the operations of choice. The best way to perform prostatotomy is by galvanocauterization. One may operate through the urethra (Bottini's method) or through a perineal wound (Chetwood's method). The author is, very naturally, in favor of his own method. He

and his colleagues have up to now operated upon forty-five cases by his method, and have obtained the following results: There was one death directly associated with the operation; three deaths some weeks after operation from causes not connected with it; three cases of such recent date that they cannot be considered; thirty cases cured; five cases improved and three unimproved. The author believes he is warranted in drawing the following conclusions: "That prostatotomy is less dangerous than prostatectomy; that it is the operation of choice in a large number of cases of prostatic obstruction, notably those of moderate glandular enlargement, orificial hypertrophy and contracture, in which the prime object is the removal of the obstruction and the depression of the bladder orifice; that galvanocautic incisions, when combined with perineal cystotomy, accomplish satisfactorily the desired result, shorten the operation, and minimize its dangers."

7. Fibroids of the Uterus.—Goelet classes as follows the palliative measures for the treatment of uterine fibroids: (1) Oophorectomy. (2) Cutting off of the blood supply by obliterating the uterine arteries. (3) Dilatation of the cervix with curettage of the endometrium. (4) Electricity. (5) Medication; including the administration of the animal extracts. He reviews each one of these modes of treatment and gives the indications for their employment. As a rule, none of them are to be resorted to unless they are specially indicated.

BOSTON MEDICAL AND SURGICAL JOURNAL

August 6, 1903.

1. The Shattuck Lecture Before the Massachusetts Medical Society, June 9, 1903: The Sources, Favoring Conditions and Prophylaxis of Malaria in Temperate Climates, with Special Reference to Massachusetts, By THEOBALD SMITH.
2. The Element of Torsion in Lateral Curvature of the Spine: Its Place in the Cause and Treatment, By ROBERT W. LOVETT.
3. A Criticism of Klemperer's Work on the Condition of Uric Acid in the Urine, By FRANCIS H. MCCRUDDEN.

1. Malaria.—Smith's article, which was begun in the issue of July 16th, is concluded in the present number. Part of the paper has already been abstracted. The author's summary, condensed, follows: (1) Probably only tertian malarial fever can be propagated in Massachusetts. It is imported, into this State, in the blood of individuals arriving from permanently infected localities. (2) It is impossible to say at what stage of the disease or relative immunity the mosquito may become infected. Probably the gametes are not formed early in malaria and relatively immune persons are, therefore, in the most danger, especially after fresh exposure, as in them gametes form very promptly and without causing much or any clinical disturbance. (3) Infection spreads most readily, in our latitudes, in crowded districts near breeding places of Anopheles. Infection is limited by relative isolation of inhabitants, by protection through quinine, by protection against mosquitoes, and by the absence of persons partially immunized by long exposure in

endemic localities. (4) Sewage contamination of surface waters probably favors the spread of malaria by increasing the food supply of the mosquito larvæ and by injuring their enemies. (5) The spread of malaria is best controlled by exterminating mosquitoes. The disease is of sufficient importance to be made a notifiable disease. In times of epidemic malaria it may be desirable to specially supervise infected persons, and the blood of all ailing children should be examined for the parasite. (6) Two questions demand solution: (a) The relation of the species *A. punctipennis* to the parasite of tertian fever; (b) the infecting power of fresh cases of tertian malaria as compared with relapsed and with cases in partially immunized individuals from malarial countries.

2. Torsion in Lateral Curvature of the Spine.

—This is the third paper, by Lovett, on the same subject. He attempts to study the element of torsion in its relation to lateral curvature: to study the movements of the spine and not its anatomy. The questions he endeavors to answer are: (1) Why does rotation of the spine on its vertical axis occur in lateral curvature? (2) If lateral curvature is necessarily associated with rotation or torsion, may not the reverse be true, and may not rotation of the spine be necessarily accompanied by lateral curvature? An account is given of a number of experiments devised for the purpose of elucidation of these two problems. The author has found that an active or passive twist with the chin to the left in model and cadaver is accompanied by a dorsal curve to the right with displacement of the trunk to the right. In the erect position this lateral curve begins at the dorsolumbar junction. In marked flexion the lateral curve begins at the seventh or eighth dorsal vertebra. We cannot follow in detail the intricacies of Lovett's discussion. The practical therapeutic conclusions he draws from his study are these: (1) A right dorsal curve should be twisted to the right, which should curve the spine to the left; should it be a high dorsal curve the twist should be given in full flexion of the spine. With regard to cases with fixed curves it is not possible as yet to say what the therapeutic value of torsion is. (2) Postural lateral curves may apparently originate in (a) the flexed position of the spine; (b) in the extended position of the spine; (c) in twisted positions of the spine in which the lateral curve is only symptomatic of the twist. In these cases torsion movements and passive torsion of the spine are of therapeutic value.

3. Uric Acid in the Urine.—McCrudden takes issue at the announcement made by Klemperer, at the last congress for internal medicine at Weisbaden, that uric acid is found in the urine in the four following forms: (1) The chemically dissolved part. (2) The physically dissolved uric acid. (3) The uric acid combined with bases. (4) The uric acid in the form of an organic compound with some such body as formaldehyde. The author gives his reasons, in detail, for his assertion that Klemperer's conclusions are not founded upon sound chemical facts.

Book Notices.

A Manual of Practical Hygiene for Students, Physicians and Medical Officers. By CHARLES HARRINGTON, M. D., Assistant Professor of Hygiene in the Medical School of Harvard University. Second Edition, Revised and Enlarged. Illustrated with Twelve Plates in Colors and Monochrome, and One Hundred and Thirteen Engravings. Philadelphia and New York: Lea Brothers & Company, 1903. Pp. 5 to 760. (Price, \$4.25.)

Of late much attention has been given to this subject, and the author has found it necessary, in but little over a year, to publish a second edition of this book. The entire work has been carefully rewritten, a great many additions have been made where necessary, and some obsolete material has been discarded. Of the new material the chapter upon the relations of insects to human diseases will be found to be the most important.

Over a quarter of the book is devoted to the subject of foods, in which are given at length the constituents, nutritive value, forms and preparation, preservation and contamination, etc. With the remainder of the book the author covers the field of general hygiene most thoroughly. The chapter upon the relation of insects to human disease, in which the author goes over the subject most carefully, devoting several paragraphs to preventive measures, deals principally with the mosquito and its relation to malarial and yellow fevers, filarial disease and dengue.

The book is written in a most entertaining manner, the style is clear and concise, and the subjects are well classified. The chapter on food is to be especially commended for its completeness, and the chapters on water, disinfectants and disinfection, habitations, schools, etc., deserve separate mention. As a reference book for student and practitioner it cannot be praised too highly. It is eminently practical throughout.

Diseases of the Stomach. A Textbook for Practitioners and Students. By MAX EINHORN, M. D., Professor of Clinical Medicine at the New York Postgraduate Medical School and Hospital, etc. Third Revised Edition. New York: William Wood & Company, 1903. Pp. xvii-534.

In this edition the book has been thoroughly revised, and much that is new has been added. Of the new material, most important are the articles on œsophagoscopy, mould pellicles, the value and limitation of examinations of the gastric contents, and exulceratio simplex. The same high standard of excellence of the previous editions is maintained, but, as before, the limits of the book prevent the author from giving more than only the salient points of the subject. The diagnostic results obtainable from gastroduodenoscopy, according to most writers, are not so brilliant as the author leads us to believe.

In the chapter on chronic gastritis no attempt is made to subdivide this disease into types, the reader receiving the impression that all these cases present similar pictures. Gastritis with in-

creased acidity is not mentioned at all. In the article on hyperchlorhydria this disease is not distinguished from hyperchylia, both being discussed as a part of one and the same disease. By describing the various neuroses of the stomach, such as bulimia, polyphagia, eructations, etc., as separate diseases, the author tends to dispel the idea that these are merely single symptoms of a complex nervous condition. The articles on achylia gastrica, gastric electricity, diet, and the examination of the ingesta are to be especially commended. The author's views about the use of pepsin and hydrochloric acid, as being of very little use as therapeutic agents, coincide with those of most modern writers. Throughout the book clearness and conciseness are noticeable features. The literature is given in a very complete manner. Students and practitioners who cannot find the time to consult the larger books on the subject will find this one of great service.

Handbuch der Geschichte der Medizin. Begründet von Dr. med. TH. PUSCHMANN, Weiland, Professor an der Universität in Wien. Herausgegeben von Dr. med. MAX NEUBURGER, Docent an der Universität in Wien; und Dr. med. JULIUS PAGEL, Professor an der Universität in Berlin. Fünfte Lieferung. I. Band, Bog. 45-48 (Schluss), und II. Band, Bog. 1-7. Jena: Gustav Fischer, 1903. Pp. 705 to 756. Erster Band. Pp. xi-112.

The fifth installment of this monumental work takes up modern medicine, beginning with the fourteenth century. The volume is entirely devoted to the introduction, by Dr. Neuburger, who traces the gradual evolution of the science from the time of its awakening after the Dark Ages through the empiricism of the succeeding centuries down to the days of Harvey, Hunter and Goethe. The introduction is not completed in this installment, but its length and thoroughness are indications of the hugeness and scholarship of the entire work.

BOOKS, ETC., RECEIVED.

Medical Reports of the Sheppard and Enoch Pratt Hospital. Vol. 1, No. 1. Baltimore, Md.: 1903. Pp. 176.

Parasitäre Krebsforschung und der Nachweis der Krebsparasiten am Lebenden. Von Prof. Dr. MAX SCHULLER, in Berlin. Mit Abbildungen im Texte. Berlin S. W. 11: Verlag von Vogel & Kreienbrink. 1903. Pp. 44.

Some Elements to Be Considered in Urinalysis. A Series of Six Essays. 1. The Kidney, Its Functions, and the First Steps in a Urinary Examination. 2. Color—Specific Gravity—Reaction—Odor. 3. Phenomena of the Secretion and Excretion—Sediments, Their Tests and Method of Identification. 4. Detection of Sediments. 5. Qualitative and Quantitative Determination of Albumin and Sugar. 6. Microscopy. By J. W. CRISMOND, M. D., Anderson, Ind. Price, twenty-five cents. Reprint from The Medical and Surgical Monitor, January, 1903-June, 1903. Pp. 20.

The Medical Epitome Series. Microscopy and Bacteriology. A Manual for Students and Practitioners. By P. E. ARCHINARD, A. M., M. D., Demonstrator of Microscopy and Bacteriology, Tulane University of Louisiana, Medical Department. Series Edited by V. C. PEDERSEN, A. M., M. D., Instructor in Surgery and Assistant Anæsthetist at the New York Polyclinic Medical School and Hospital; Deputy Genitourinary Surgeon to the Out-Patient Department of the New York Hospital; Physician-in-Charge, St. Chrysostom's Dispensary; Anæsthetist to the Roosevelt Hospital (First Surgical Division). Illustrated with Seventy-four Engravings. Lea Brothers & Co., Philadelphia and New York. Pp. 210.

Miscellany.

Berks County Medical Society.—At the August meeting, Wm. Rodman, professor of surgery at the Medico-Chirurgical College in Philadelphia, gave an address on Hernia. He stated 66 per cent. of cases of hernia developing, from the conditions during childhood, "known as congenital hernia," were cured by wearing a properly fitted truss. He stated a person having a hernia and wearing a truss should have at least three trusses. 1st, A strong heavy truss, for wear during the day; 2nd, a lighter one to be worn at night. No person having a hernia, should be without it at night, as possibly by one effort of getting up, the canal may be stretched more by once arising from the bed, than could be benefited by wearing one during the day for months. 3rd, A truss made from waterproof material, so as not to interfere with bathing. It is very important to have the proper diagnosis, as to location, direct or indirect. Thirty-three per cent. of the cases are not amenable to treatment by the truss. Diagnosis from hydrocele: by placing the patient in a recumbent position in either case, reducing the same, placing your finger in the inguinal canal, allowing the patient to stand on his feet. If a hernia is present it will be retained; if a hydrocele, it will enter the sac, and cannot be held back; the transparent test was only applicable in a few cases. Contents of the hernial sac: usually peritonæum and intestine, but all organs in the abdomen have been found in the sac, with the exception of the pancreas. Kinds of hernia: reducible, irreducible, inflamed, and strangulated. Taxis should not be continued for over ten minutes, using the greatest gentleness. In strangulated hernia not a particle of gas escapes through the lower bowel. Rodman advises in all cases of strangulated hernia to cut down at once and correct the obstruction, as there is no danger or practically none in operating, but by waiting, the mortality becomes very high as the result of non-interference. Rodman believes in the radical cure in all cases where the improvement is not satisfactory from the truss. In obstructed hernia you have vomiting from the contents of the stomach, some as a regurgitation; in strangulated hernia, not only the contents of the stomach, but the contents of the intestinal tract. In inflamed hernia, the pain is constant; in the strangulated, more in paroxysms. Anastomosis of the bowel by the Murphy button for gangrene from the strangulation could and should be done, under such conditions. Usually the mortality is very high where the bowel has become gangrenous.

Detweiler, of Williamsport, read a paper on Animal Therapy, in which he spoke of a number of cases treated by glandular fluid made from the thyroid gland of the goat, the testicle of a two-year-old bullock, some brain, etc. He has used this in a number of cases of diabetes, with a decrease in the amount of sugar and water, where the pathological changes shown by urine analysis were, in a measure, restored. In tuberculosis, the bacilli diminished. In neurasthænia, the nerve forces improved, and Detweiler believes animal therapy has a wide field in which to test its usefulness.

A Hell for Doctors.—Under this startling caption, *La Médecine orientale* for July 25, 1903, states that Sousa's explorations have brought to light a code that should make physicians grateful that they were not licensed to practise four thousand years before Christ, in Babylon. King Hamaroubis, a potentate of that epoch, had his own ideas about honoraria. For instance, a physician who cured a tumor, or a disease of the eyes, received ten shekels; but if the operation was unsuccessful, he had both arms cut off. Punishment was less severe if the patient were a slave; in this case, the doctor had to buy another. Veterinary surgeons received one-quarter of a shekel for the cure of an ox or an ass; in case of failure, he paid one-quarter of the value of the animal. How Molière, who did not admire physicians, would have enjoyed life at the court of Hamaroubis!

"There's Contagion in 't."—"Doctor," said the youthful parent to the health resort physician in whose hands he had placed himself, "is insomnia a contagious disease?" "Contagious?" responded Æsculapius in great surprise, "Why, certainly not? What on earth made you think it was?" "Well, I don't know," rejoined the youthful parent, "but I've noticed that whenever baby has insomnia, neither my wife nor myself can get to sleep."

Doctors and Cooks.—"I believe," said the young physician, according to Brooklyn *Chat*, "that bad cooks supply us with half our patients."

"That's right," rejoined the old doctor. "And good cooks supply us with the other half."

An Unpalatable Prescription.—"I'm sorry to hear that your wife is suffering from her throat. I hope it's nothing serious?" quotes London *Punch*. "No, I don't think so. The doctor has forbidden her to talk much. It'll trouble her a good deal, I expect, and she won't be herself for some time."

Official News.

Infectious Diseases in New York:

We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending August 15, 1903:

DISEASES.	Week end'g Aug. 8.		Week end'g Aug. 15.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	184	7	125	8
Diphtheria and Croup....	288	22	295	26
Scarlet fever	106	13	86	2
Small-pox	0	0	0	0
Chicken-pox	14	0	12	0
Epidemic typhus	250	162	282	145
Epidemic typhus	89	12	96	12
Cerebrospinal meningitis	5	0	0	0

Public Health and Marine Hospital Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the surgeon general, Public Health and Marine Hospital Service, during the week ended August 15, 1903:

Smallpox—United States			Cases.	Deaths.
Place.	Date.			
Alabama—Mobile	Aug. 1-8		4	
California—Los Angeles	July 25-Aug. 1		1	
California—San Francisco	July 26-Aug. 2		3	
Massachusetts—Fall River	Aug. 1-8		1	1
Michigan—Detroit	Aug. 1-8		3	
Missouri—St. Louis	Aug. 1-8		6	
N. Dakota—Grand Forks	Aug. 1-8		1	

New Hampshire—Manchester	Aug 1-8	1	
New Jersey—Camden	Aug 1-8	1	
Ohio—Cincinnati	July 31-Aug. 7	2	
Ohio—Dayton	Aug 1-8	3	
Ohio—Toledo	Aug 1-8	1	
Pennsylvania—Allegheny	Aug 2-9	5	1
Pennsylvania—Altoona	Aug 1-8	1	imported from Virginia via Washington City.
Pennsylvania—Carbondale	July 24-31	2	
Pennsylvania—McKeesport	Aug. 1-8	4	
Utah—Salt Lake City	Aug. 1-8	2	

Smallpox—Europe.

Belgium—Antwerp	July 18-25	3	
Ecuador—Guayaquil	June 24-July 4	1	
Colombia—Bocas del Toro	July 20-28	1	Sporadic case
Great Britain—Bristol	July 18-25	1	
Great Britain—Leeds	July 18-25	9	1
Great Britain—Liverpool	July 18-Aug. 1	12	2
Great Britain—London	July 11-18	7	
	July 18-25	12	
Great Britain—Manchester	July 18-25	7	
Great Britain—Newburgham	July 11-25	10	
India—Bombay	July 7-14	14	
India—Calcutta	July 4-11	1	
Mexico—City of Mexico	July 26-Aug. 2	7	1
Mexico—Tampico	Aug. 1-8	2	
Netherlands—Amsterdam	July 25-Aug. 1	1	1
Russia—Moscow	July 11-18	2	

Yellow Fever.

Colombia—Panama	July 27-Aug. 3	3	1
Costa Rica—Limon	July 23-30	2	2
Mexico—Tampico	July 24-Aug. 8	35	35
Mexico—Vera Cruz	July 24-Aug. 1	30	3
	Aug. 1-8	61	26
Mexico—Victoria	Aug. 10	1	1

Cholera—Insular.

Philippine Islands—Manila	June 13-20	9	8
Philippine Islands—Provinces	June 13-20	368	319

Cholera—Foreign.

India—Bombay	July 7-14	1	
India—Calcutta	July 4-11	35	
Straits Settlements—Singapore	June 17-20	6	

Plague—United States.

California—San Francisco	July 29	1	
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Plague—Foreign.

Australia—Queensland—Bundaberg	June 1	1	
China—Hongkong	June 17-26	52	47
Egypt—Alexandria	July 5	1	
Egypt—Port Said	July 13	7	
Egypt—Tantah	July 9	4	
India—Bombay	July 7-14	68	
India—Calcutta	July 4-11	15	
India—Karachi	July 5-12	2	2
Mauritius	July 2-16	11	10

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending August 15, 1903:

CLEARY, P. J. A., Colonel and Assistant Surgeon-General. Appointed Brigadier-General, August 6, 1903. Retired from active service, August 7, 1903.

DE WITT, CALVIN, Colonel and Assistant Surgeon-General. Appointed Brigadier-General, August 9, 1903. Retired from active service, August 10, 1903.

FEN EYCK, BENJAMIN, L., Major and Surgeon. Retired from active service, August 3, 1903.

Promotions.

BYRNE, C. B., Lieutenant Colonel. To rank as Colonel and Assistant Surgeon-General, from August 9, 1903.

COMPTON, L. W., Major. To rank as Lieutenant Colonel and Deputy Surgeon-General, from August 9, 1903.

FISHER, H. C., Captain. To rank as Major and Surgeon, from August 9, 1903.

HARVEY, PHILIP F., Lieutenant-Colonel. To rank as Colonel and Assistant Surgeon-General, from August 6, 1903.

IRELAND, M. W., Captain. To rank as Major and Surgeon, from August 3, 1903.

TORNEY, GEORGE H., Major. To rank as Lieutenant-Colonel and Deputy Surgeon-General, from August 6, 1903.

WELLS, GEORGE M., Captain. To rank as Major and Surgeon, from August 6, 1903.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending August 15, 1903:

BACHMANN, R. W., Assistant Surgeon. Detached from the *Solace* and ordered to the Naval Station, Guam.

COCKE, P. L., Acting Assistant Surgeon. Detached from the *Chesapeake* and ordered home to wait orders.

EDGAR, J. M., Surgeon. Detached from the *Wabash* and ordered to the Asiatic Station with a detachment of Marines, leaving Washington on August 24th.

WILSON, G. B., Surgeon. Detached from the Naval Hospital at Chelsea and ordered to the *Albatross*.

Public Health and Marine Hospital Service:

Official List of the Changes of Station and Duties of Commissioned and Non-commissioned Officers of the Public Health and Marine Hospital Service for the week ending August 15, 1903:

ANDERSON, J. F., Passed Assistant Surgeon. To proceed to Marietta, Conewago, and Swiftwater, Pa.; and Baltimore, Md., for special temporary duty. August 5, 1903.

AUSTIN, H. W., Surgeon. Granted leave of absence for 1 month from August 6. July 30, 1903.

BAHRENBURG, L. P. H., Assistant Surgeon. Upon the arrival of Acting Assistant Surgeon Norman Roberts at Chicago, Ill., to proceed to New Orleans, La., and report to medical officer in command for temporary duty. July 24, 1903.

BARNESBY, P. N., Acting Assistant Surgeon. Granted leave of absence for 1 month from August 6. August 5, 1903.

BROWN, B. J., Jr., Acting Assistant Surgeon. Granted leave of absence for 2 weeks from August 4. August 6, 1903.

BROWN, B. W., Passed Assistant Surgeon. Granted leave of absence for 15 days from August 12. August 10, 1903.

CARMICHAEL, D. A., Surgeon. To proceed to Washington, D. C., and report to Director of the Hygienic Laboratory for special instruction. August 10, 1903.

CARTER, H. R., Surgeon. Granted leave of absence for 1 month from August 4. August 1, 1903.

COLLINS, G. L., Assistant Surgeon. To proceed to the Immigration Depot, New York, N. Y., and report to Surgeon G. W. Stoner for duty. July 30, 1903.

DECKER, C. E., Assistant Surgeon. Granted extension of leave of absence, on account of sickness, for 15 days from July 15. July 20, 1903.

DECKER, C. E., Assistant Surgeon. Placed on waiting orders from August 1. August 12, 1903.

DELGADO, J. M., Acting Assistant Surgeon. Granted leave of absence for 7 days from August 5, 1903, under provisions of paragraph 210 of the regulations.

DUFFY, F., Acting Assistant Surgeon. Granted leave of absence for 10 days from August 12. August 13, 1903.

EAGER, J. M., Passed Assistant Surgeon. Detailed to represent the service at International Congress of Hygiene and Demography at Brussels, Belgium, September 3-8. August 12, 1903.

EBERT, H. G., Assistant Surgeon. To proceed to Fort Stanton, N. M., and report to medical officer in command for duty and assignment to quarters. July 30, 1903.

FOSTER, A. D., Assistant Surgeon. To proceed to St. Louis, Mo., and assume temporary command of the service during the absence, on leave, of Surgeon J. M. Hassaway. August 4, 1903.

FRISSELL, C. M., Acting Assistant Surgeon. Granted leave of absence from August 6 to 18, inclusive. August 6, 1903.

GAHN, HENRY, Pharmacist. Detailed to represent the service at 53rd annual meeting of the Pharmaceutical Association to be held at Mackinac Island, Michigan, August 3. July 24, 1903. Reassigned to duty in the Purveying Depot, effective July 17. August 4, 1903.

GASSAWAY, J. M., Surgeon. Granted leave of absence for 2 months from August 10. August 11, 1903.

GIBSON, R. H., Pharmacist. Granted leave of absence for 7 days from July 29, 1903, under paragraph 210 of the regulations.

HALL, L. P., Pharmacist. Granted leave of absence for 30 days from August 20. August 5, 1903.

IRWIN, FAIRFAX, Surgeon. Granted leave of absence for 2 months from September 5. August 11, 1903.

- KIMMET, W. A.**, Acting Assistant Surgeon. Granted leave of absence for 2 days from July 25, 1903, under paragraph 210 of the regulations.
- LORD, C. E. D.**, Assistant Surgeon. To proceed to Seattle, Tacoma, Port Townsend, and Sumas, Wash.; Victoria and Vancouver, B. C.; Portal, N. D.; and Winnipeg, Manitoba, for special temporary duty. August 6, 1903.
- LUNSDEN, L. L.**, Passed Assistant Surgeon. Relieved from temporary duty at San Juan, P. R., and directed to proceed to Vineyard Haven, Mass., and assume temporary command of service during absence of Surgeon D. A. Carmichael. August 10, 1903.
- McBRIDE, C. R.**, Pharmacist. To proceed to New York, N. Y. (Stapleton), and report to medical officer in command for duty and assignment to quarters. August 12, 1903.
- MANNING, H. M.**, Assistant Surgeon. To proceed to Stapleton, N. Y., and report to medical officer in command for duty and assignment to quarters. July 30, 1903.
- NYDEGGER, J. A.**, Passed Assistant Surgeon. Relieved from duty at Saulte Ste. Marie, Mich., and directed to proceed to the Immigration Depot, New York, N. Y., and report to Surgeon G. W. Stoner for assignment to duty. August 3, 1903.
- PETTUS, W. J.**, Assistant Surgeon-General. Granted leave of absence for 20 days from August 10. August 6, 1903.
- PRIMROSE, R. S.**, Acting Assistant Surgeon. Granted leave of absence for 15 days, on account of sickness. August 7, 1903.
- RICHARDSON, T. F.**, Assistant Surgeon. To proceed to Tampico, Mexico, for special temporary duty. July 31, 1903.
- ROBERTS, NORMAN**, Assistant Surgeon. To report to medical officer in command at Chicago, Ill., for duty and assignment to quarters. July 30, 1903.
- ROHRIG, A. M.**, Pharmacist. Detailed to represent the service at 53rd annual meeting of the Pharmaceutical Association to be held at Mackinac Island, Michigan, August 3. July 24, 1903.
- RYDER, L. W.**, Pharmacist. Granted leave of absence for 5 days from August 1. July 25, 1903.
- SAVAGE, W. L.**, Acting Assistant Surgeon. Granted leave of absence for 30 days from August 6. August 6, 1903.
- SMITH, F. C.**, Assistant Surgeon. To proceed to the Immigration Depot, New York, N. Y., and report to Surgeon G. W. Stoner for duty. July 30, 1903.
- SOUTHARD, F. A.**, Pharmacist. Upon being relieved by Pharmacist C. R. McBride, to proceed to Washington, D. C., and report to the Director of the Hygienic Laboratory for duty. August 12, 1903.
- STEARNS, W. L.**, Pharmacist. Reassigned to duty at the Purveying Depot, effective July 17. August 4, 1903.
- STIMSON, A. M.**, Assistant Surgeon. Granted leave of absence for 7 days from July 28, 1903, under paragraph 191 of the regulations. Granted extension of leave of absence for 7 days from August 5. August 1, 1903.
- STONER, J. B.**, Surgeon. Granted extension of leave of absence for 1 month from August 1. July 28, 1903.
- WARD, W. K.**, Assistant Surgeon. Granted leave of absence for 2 days from July 30, 1903, under paragraph 191 of the regulations.
- WARD, W. K.**, Assistant Surgeon. Granted leave of absence for 10 days from August 25. August 8, 1903.
- WATERS, M. H.**, Pharmacist. Relieved from duty in the Hygienic Laboratory, and assigned to duty in the Bureau. July 28, 1903. To report to chairman of board of examiners at Washington, D. C., August 10, 1903, for examination to determine his fitness for promotion to the grade of pharmacist of the second class. August 4, 1903.
- WATERS, M. H.**, Pharmacist. Granted leave of absence for 22 days from August 15. August 6, 1903.
- WICKES, H. W.**, Passed Assistant Surgeon. Granted leave of absence for 1 day, August 15. August 13, 1903.
- WIGHTMAN, W. M.**, Assistant Surgeon. To report to medical officer in command at San Francisco quarantine for duty and assignment to quarters. July 30, 1903.
- WILLE, C. W.**, Assistant Surgeon. To proceed to Baltimore, Md., and assume temporary command of the service during the absence, on leave, of Surgeon H. R. Carter August 3, 1903.

Boards Convened.

Board convened to meet at Washington, D. C., July 27, 1903, for the consideration of the request of Assistant Surgeon C. E. DECKER to be placed on waiting orders on account of physical disability. Detail for the Board—Assistant Surgeon General A. H. GLENNAN, Chairman. Assistant Surgeon General L. L. WILLIAMS. Assistant Surgeon General H. D. GEDDINGS, Recorder.

Board convened to meet at Washington, D. C., July 27, 1903, for the physical reexamination of an officer of the Revenue Cutter Service. Detail for the Board—Assistant Surgeon General W. J. PETTUS, Chairman. Assistant Surgeon General H. D. GEDDINGS, Recorder.

Board convened to meet at Washington, D. C., August 10, 1903, for the examination of Pharmacist M. H. WATERS to determine his fitness for promotion to the grade of pharmacist of the second class. Detail for the Board—Assistant Surgeon General L. L. WILLIAMS, Chairman. Assistant Surgeon A. J. McLAUGHLIN, Recorder.

Appointments.

CHARLES R. McBRIDE, of Ohio, appointed pharmacist of the third class. August 7, 1903.

NORMAN ROBERTS, of Pennsylvania; GEORGE L. COLLINS, of Massachusetts; HARVEY G. EBERT, of Washington; WILLIAM M. WIGHTMAN, of California; HERBERT M. MANNING, of the District of Columbia, and FREDERICK C. SMITH, of Minnesota, commissioned as assistant surgeons (recess) in the Public Health and Marine Hospital Service. July 25, 1903.

Promotion.

G. W. ILTIS, pharmacist of the third class, promoted to be pharmacist of the second class, effective April 24, 1903.

Reinstatement.

WILLIAM C. PHILLIPS, reinstated as pharmacist of the third class. July 15, 1903.

Suspension.

Pharmacist H. E. DAVIS suspended from duty and pay for a period of thirty days from July 27, 1903.

Marriages and Deaths.

Married.

McCOMAS—STAUFFER.—In St. Louis, Missouri, on Monday, April 27th, Dr. William G. McComas and Miss Mary E. Stauffer.

MARKWORT—HUSEMEYER.—In St. Louis, Missouri, on Saturday, August 8th, Dr. Herbert E. Markwort and Miss Helen Husemeyer.

MILLER—MORRIS.—In Philadelphia, Pennsylvania, on Wednesday, August 12th, Dr. Albert Griffith Miller and Miss Mabel A. Morris.

Died.

BARBEE.—In Pruntytown, West Virginia, on Wednesday, August 5th, Dr. Andrew R. Barbee, of Point Pleasant, in the seventy-sixth year of his age.

BRUCKHEIMER.—In Washington, D. C., on Friday, August 7th, Dr. Moses Bruckheimer, in the sixty-third year of his age.

GARITEE.—In Philadelphia, Pennsylvania, on Monday, August 10th, Dr. Clarence John Garitee, in the thirty-first year of his age.

GLEISES.—In Brookside, N. Y., on Friday, August 14th, Dr. John Gleises, in the fiftieth year of his age.

MCGRATH.—In Fishkill Landing, N. Y., on Tuesday, August 11th, Dr. Michael F. McGrath, in the thirty-fifth year of his age.

PLAYFAIR.—In St. Andrews, Scotland, on Thursday, August 13th, Dr. W. S. Playfair, in the sixty-seventh year of his age.

SKINNER.—In Toledo, Ohio, on Monday, August 17th, Dr. Samuel W. Skinner, in the eighty-third year of his age.

WEST.—In St. Louis, Missouri, on Sunday, August 9th, Dr. Washington West, in the seventy-third year of his age.

New York Medical Journal AND Philadelphia Medical Journal. CONSOLIDATED.

A Weekly Review of Medicine

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SATURDAY, AUGUST 29, 1903.

WHOLE NO. 1241

Original Communications.

ON THE TREATMENT OF WOUNDS INFLICTED WITH THE "TOY PISTOL."

By W. SCOTT SCHLEY, M. D.,
NEW YORK.

At this time, when the results of injuries inflicted by the so-called toy pistol are so much in evidence, it may be of interest to speak of the method of treatment of such injuries that we have pursued in the outdoor department of St. Luke's Hospital.

In this service we see a very fair proportion of these injuries during the year, and many during the few weeks preceding and following the fourth of July, when not infrequently four or five cases a day present themselves.

The patients are as a rule smaller boys. The wounds are usually of the hand, but occasionally of the arm, leg, or trunk, and nearly always produced by the discharge of the blank cartridge pistol of small calibre in the effort to cock the arm while held with both hands. Most of the cases have been seen within three days of the accident. In over two-thirds a cellulitis had begun to develop. All have been treated by free exploration and open packing, a procedure of which I wish particularly to speak.

We have many times been surprised, especially with wounds of the hand, at the extent of damage done beneath the surface, often when the exterior, except for its small blackened hole, gave so little indication of the condition beneath. In a number of very recent cases, with the wound near the metacarpophalangeal joints, the effect of the powder blast, the powder grains, and a few times the wads, were found under the palmar fascia, and almost as high as the annular ligament of the wrist. In others, powder grains and wads have been found under the skin of the dorsum of the hand and well above the level of the injury in the palm. The force of the discharge appears to follow along the lines of least resistance and spread extensively in the connective tissue planes if the muzzle of the pistol is not more than an inch from the skin.

We have found it of the greatest service to start with a free longitudinal skin incision, and with good retraction and sponging continue the cut until the limits of all blackened tissue and powder grains have been reached. This we find requires better observation and more careful dissection than at first sight appears necessary; a small blackened spot not infrequently will be found to lead to a large area



FIG. 1. Shot on palmar surface of hand between fourth and fifth metacarpophalangeal joints. Powder grains, sloughy tissue and extraneous matters found on dorsum of hand throughout length of incision.

quite in another and unsuspected direction, which also contains blackened sloughy tissue and powder grains. It is this deep carrying in and hiding of extraneous matter which constitutes the great danger in this class of injuries. Wounds of the palm near the web of the fingers have been treated by incision through the web down to the site of injury, and further exploration on the dorsal or palmar surface as seems indicated. Good retraction



FIG. 2.—Shot on palmar surface of index finger. Foreign matter found on palmar surface and dorsal surface of hand. Incision made well down through web of fingers healing. See Fig. 3.



FIG. 4.—Palmar wound and incision, nearly healed, extending from base of finger well up the palm.



FIG. 3.—Dorsal surface. See Fig. 2.



FIG. 5.—Wound of palm. Incision, now nearly healed, extended between crosses.

and exposure of the area serve to avoid important structures, which are fortunate in usually escaping in the absence of a harder and heavier projectile than the wad and unburned powder. Sloughy areas and extraneous matters are curetted gently away with free irrigation of the wound with a saturated solution of boric acid or 1-5000 bichloride. The edges of the wound of entrance are trimmed and a comparatively loose, moist, iodoform gauze packing, with a large, wet dressing of 1 to 5,000 or 6,000 bichloride is then employed, and kept wet at home. Absolute thoroughness in this way has given us excellent results. It is astonishing how quickly sloughs separate and granulation and repair take place. The futility and danger of attempting to care for these cases by small incisions or simple curetting and washing of the wound with removal of the wad, if haply it is superficial, has become apparent to us through experience in the past. Through and through drainage has been used where the hand has been nearly perforated (to the skin of the opposite side), but free opening of one side only has almost always sufficed.

During the last four years none of the considerable number of patients treated has developed tetanus; in very few has the cellulitis, when present, persisted and required further incision; and the healing and functional results have been most gratifying and satisfactory.

Tetanus antitoxine has been given but four times, so that the cases must stand as those treated by practically surgical measures alone, our reliance having been placed upon free exploration and opening to the air. How many, if any, of these cases had been inoculated with tetanus germs will never be known. Years and localities also appear to vary in their production of cases of the disease. Nearly all those treated have come from the upper West Side, between Eightieth and One Hundred and Fortieth Streets. The use of antitoxine is certainly a wise adjuvant measure, and might with advantage be employed as a routine, certainly in those cases seen late, after the lapse of some days.

A word as to the wads: Two seems to be the rule, and they are not very far to seek. Occasionally one or both have dropped or worked out. Sometimes one or both are tucked away in a recess made by the blast of the explosion.

As regards the anæsthesia—a general anæsthetic, as gas, chloroform, or ether has been found of greater service, particularly if the injury is not recent and cellulitis is present. Two per cent. cocaine has worked very satisfactorily in a number where the patient has come in immediately, or within an hour or two of the accident, the partial anæsthesia resulting from the traumatism being taken advantage of.

What has impressed us particularly is the extraordinary burrowing that takes place along connective tissue planes when the muzzle of the pistol is very close to or against the skin, and the extensive work necessary to reach the limits of its action under these circumstances. A few photographs of cases are appended, showing wounds nearly healed. It is to be regretted that they were not taken earlier or during the operative work so as to show something of the anatomical detail.

IS THERE A CONSTANT PIGMENT CELL IN THE COCHLEA?

By GEORGE SLOAN DIXON, M. D.,

NEW YORK,

INSTRUCTOR AND ATTENDING SURGEON, DEPARTMENT OF OTOL-
OGY, CORNELL UNIVERSITY MEDICAL COLLEGE; CURATOR
AND ASSISTANT PATHOLOGIST, NEW YORK
EYE AND EAR INFIRMARY, ETC.

We hope that the following report of a rather peculiar condition found in the cochlea of a woman may not prove uninteresting to the profession:

CASE.—The patient was forty years of age, died February 26th, and the autopsy was held on the 28th, by Dr. Otto H. Schultze, to whom we are indebted for the gross specimen. He found primary carcinoma in the right breast, small metastases in the left breast and right pleura, aortic stenosis, atheromatous plaques throughout the arch—the coronaries were also involved. The liver and kidneys were small and granular, and there was fibromyoma of the uterus.

Though the specimen was at least forty-eight hours old before being removed and placed in 10 per cent. formalin, the body was on ice in the interval, and the tissue was in very fair condition.

Decalcification was effected by means of nitric acid and salt solution, as recommended by Politzer. The specimen was embedded in celloidin, sectioned horizontally, and the photographed slide was stained with Delafield's hæmatoxylin.

The cochlear capsule was dense bone. The modiolus and lamina spiralis were spongy and thinner than usual. The modiolus principally at the base of the lamina spiralis, above Rosenthal's canal, presented large numbers of brown, iron-free, pigmented cells, irregular in form, with long processes and a clear nucleus where it could be made out. They resembled the branched pigmented cells of the chorioid and iris. The cells spread out through the thin lamina spiralis as far as the crest, thence along Reissner's membrane to the stria vascularis, where the cells proper ceased and the pigment became granular. It was then continued along the membrana basilaris as far inward as the external supporting cells. No pigment was present in Corti's organ, in the crest or capsule, and very little in the ligamentum spirale.

We have not seen these cells described as occurring in this location, and had not noticed them specially in other specimens until the one described called the matter so forcibly to our attention. Since

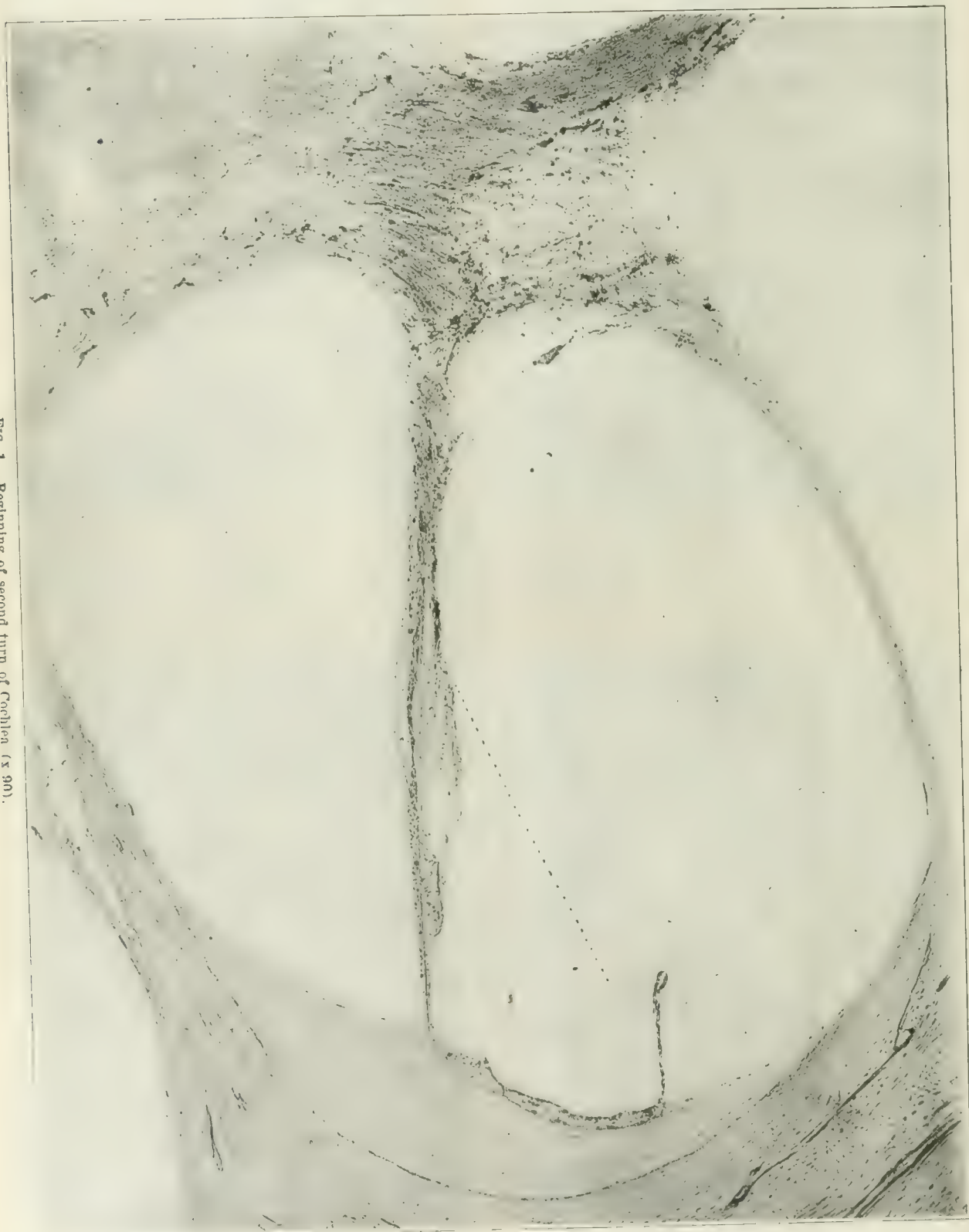


FIG. 1.—Beginning of second turn of cochlea (x 90).

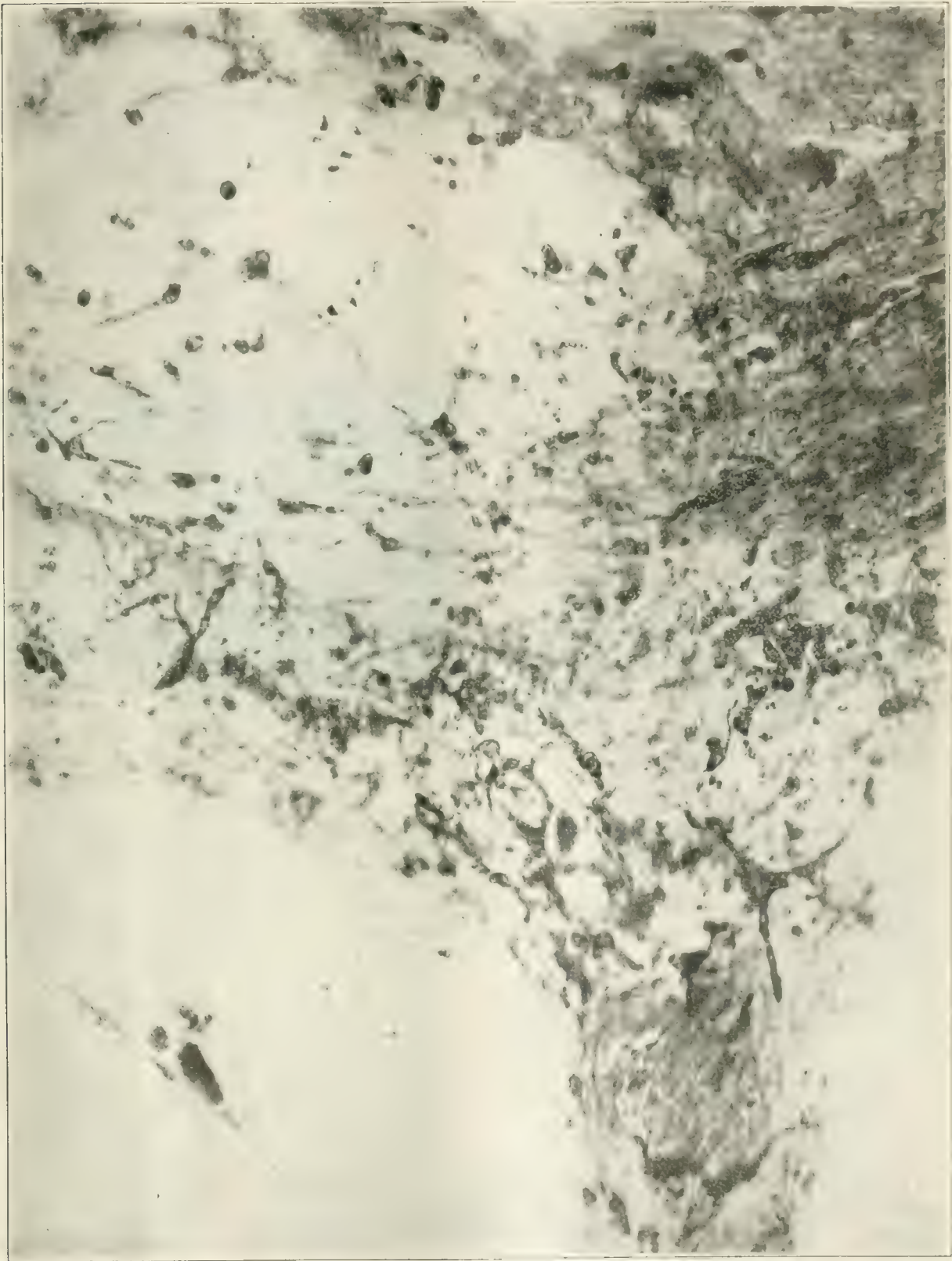


FIG. 2. A portion of the modiolus at the base of the lamina spiralis (X 500).

then we have been able to find isolated pigmented cells in all the human adult specimens, and in one two year old child's cochlea, in our collection. In those specimens where the cells were few the pigment was very light in color.

It is true that all our adult specimens have been hardened in formalin and decalcified with nitric acid, but they were stained after various methods, in fact with every combination likely to give satisfactory results, and the pigmented cells could be found in all, if searched for carefully (provided the stain was not too dense), always in the same locations in the cochlea, and not elsewhere in the petrous portion of the temporal bone.

We have not observed these cells in the cochlea of the rabbit, but are under the impression that collections of pigment were seen near the cochlea of a guinea pig examined some years ago.

The photographs (by the writer) show a section of the cochlear tube at about the beginning of the second turn $\times 90$ diameters, and a portion of the modiolus at the base of the lamina spiralis, on the opposite side, at 500 diameters. Both show the pigment well, and the latter shows the nerve fibres passing from the ganglion to the lamina on the left.

It is unfortunate that no record of the condition of hearing was obtainable in this case.

Lee speaks of dark spots with irregular prolongations, similar to ganglion cells, in nerve centres hardened in "Erlicki's" solution, which can be washed out with hot water or dilute hydrochloric acid. Similar spots sometimes occur in specimens hardened in sublimate; but we have never seen any such result from the use of formalin, or seen, or found any record of such result from the use of nitric acid. In fact, nitric acid is used as a bleacher, and theoretically should not cause an artifact of this character.

Therefore, the fact that the pigmented cells in many instances show a clear nucleus, that they have long processes, that the pigment was not washed out with dilute hydrochloric acid, that Perls' test was negative—hence not hæmosiderin—that the specimens were decalcified with a bleaching acid, that the use of formalin has not in our experience caused pigmented spots in other bone preparations (or in cartilage—Heile) and that a few similar cells could be found in the same locations in other specimens, would seem to indicate that these cells are not artifacts, and not necessarily pathological, though the abundance in the present case may appear so. Of course, it is possible that the appearance may be pseudomelanotic; but if so, why should the pigment be found as described and not elsewhere in the petrous portion of the bone? So we are inclined to believe that the cell is a normal and constant one in the human cochlea, and that under cer-

tain conditions, as with pigment in other locations, it may become more abundant than usual, and that the present specimen is an example of this unusual increment.

NO. 124 LEXINGTON AVENUE.

AN IMPROVEMENT IN RADIOGRAPHY: A PRINT MADE BY DIRECT EXPOSURE AND DEVELOPED IN HALF A MINUTE WITHOUT A DARK ROOM.

By SINCLAIR TOUSEY, A. M., M. D.,

NEW YORK,

PROFESSOR OF SURGERY AND RECTAL SURGERY, NEW YORK
SCHOOL OF CLINICAL MEDICINE. ATTENDING SURGEON,
ST. BARTHOLOMEW'S CLINIC.

By this method a radiographic picture can be made in three minutes and used at once as a guide to an operation or other surgical procedure, and this without a dark room or expert photographic assistance.

A sheet of sensitized paper is enclosed in a light-proof envelope of black paper and is laid upon a table. The hand or other portion to be radiographed is laid upon this and the x ray tube is placed directly above, and at a distance of about nine inches from, the paper. The length of time required for the exposure varies with the thickness of the part which has to be penetrated by the x ray, and also with the size of the tube and its degree of vacuum and with the intensity of the current. The picture appended was taken at my office with a tube of a capacity of forty centimetres, i. e., intended to be used with a current which will not cause a spark to pass over a greater distance than forty centimetres. This was excited by a coil the rheostat of which was at such a point as to give a continuous spark across a space of eight inches. A liquid interrupter was used and the x ray tube was of such a degree of hardness as to give quite a bright light through three volumes of the *Medical and Surgical History of the War of the Rebellion*, about nine inches of solid paper and cardboard. The time of the exposure was two minutes and a half. It takes thirty seconds to develop such a print in the solution sold for that purpose; and after washing for a few seconds in plain water we have a "proof" which can be handled and studied quite like the proofs we get when the photographer takes our portrait. To render this print absolutely permanent it must be fixed by soaking for five minutes in "hypo." solution and must then be washed in running water for half an hour.

This sensitized paper is sold in packages of a dozen sheets, and can be opened in any comparatively dark place and one or more sheets quickly taken out and put into a light proof envelope. Several

pictures can be made at the same time by having several sheets of paper, one on top of the other, in the same envelope. In developing it, the sheets are taken out of the envelope in which they have been exposed to the x ray, in any comparatively dark place and quickly dropped into the developing solution.

The physics of radiography may be summed up briefly as follows: The invisible x ray given off by the tube passes through the light proof envelope and produces a chemical effect upon the prepared surface of the sensitized paper. This effect is greatest where the unobstructed ray strikes the paper and is least where the ray has to pass through the flesh and least of all where it has to pass through the bones. Hence in these prints we have a dark background with the bones white and the flesh only slightly shaded. This is just the opposite of the



Radiograph showing dark background, bones white, flesh slightly shaded.

usual x ray print and is neither an advantage nor a disadvantage.

The advantage claimed for this method by the author consists in the almost instantaneous production of an x ray picture, which can be used at once as a guide to treatment.

Similar appearing pictures, i. e., with the bones white and the flesh slightly shaded and the background dark, have been produced by various workers in this field by a roundabout process.

This consisted in first making a negative on a plate, developing, fixing, and drying this, and then placing this plate and a new dry plate in a printing-frame and developing, fixing and drying this plate upon which is found a reversal of the original negative. From this second plate a print is made which looks like those made by my method.

As stated before, the mere fact of these prints of mine being in approximately natural colors is not regarded as important; but simply the fact that you can produce a picture and use it right away.

103 WEST SEVENTY-SIXTH STREET.

REGICIDES; SANE AND INSANE.

By E. C. SPITZKA, M. D.,

NEW YORK.

(Continued from page 365.)

If the expectation is indulged, as would be but natural, that at least the residual five, as having survived worse than decimating sifting, would comply with the other terms of that formula, it would not be realized. Not alone not realized as regards the group; it would fail to be realized in any single case. Not Louvel, Luccheni, Czolgosz, or Angolillo labored under delusions, experienced hallucinations, or exhibited any conceit as to judicial prerogatives beyond his fellows.

Louvel had grown up under auspices that must have impressed on him that regicide was and always must be a meritorious action, and consistently with this view he was not theatrically exalted or a light-headed boaster in perpetrating the crime. He was in every way a regicide *sans phrase*, as the following authentic account of the scene when his sentence was communicated to him proves. When the registrar and Marquis Perignon arrived, "Louvel was at dinner. He was sent for, and, on making his appearance, he, with the utmost composure, made a profound obeisance to the persons who came to announce his fate. During the whole time of the reading of the sentence he evinced the utmost indifference, and was engaged in picking his nails. A slight contraction of the lips was observable when the word 'death' was uttered, but he soon recovered himself. M. Cauchy, in a mild tone, asked him whether he did not wish to see a priest.

"'Why should I?' said Louvel. 'A sick man calls in a physician because he is ill, and wishes to be cured; but my conscience being at rest, I have no need of the doctor whom you propose. Leave that to women.'

"'Would you wish to see your family?'

"'No, sir; upon reflection I think I could not bear that. I will write to them; that will be better. Farewell, gentlemen, I am obliged to you; I have been tried in good company; that is certain. I will go now and finish my dinner.'

When confined in the Luxembourg, he asked for a bottle of excellent wine and a roast chicken, in order, as he said, to make a good dinner for once in his life. He also requested to have a pair of fine sheets for the last night he was to sleep in the palace, for the sake of tasting the enjoyments of luxury.¹⁰

¹⁰ His wishes, it is said, were complied with. I am aware one C. K. Mills (*Philadelphia Medical Journal*, October 26, 1901) speaks of Louvel's having been subjected to torture, but as such as torture had long been abolished in France can

The statement of Louvel's youthful impressions is based on episodes of his day, of which one of the most significant is herewith cited. Ribbing was the most popular foreigner in Paris about the time of the Directory; the leading politicians courted his company, the populace cheered him, and the women with whom he became a favorite conferred on him the title of *le bel assassin*. The reason for all this was the single fact that he had been involved in the assassination of Gustavus III, which, having been a slaughter of a king, was a most meritorious performance in the eyes of a people who vaunted their own character as tyrannicides.

Felton, an earlier assassin of the same type, offers another instructive instance of an assassin's deed, being in harmony with the thought of the day. To quote from an well-known article¹¹ on Felton:

"The public mind, through a long state of discontent, had been prepared for, and not without an obscure expectation of, the mortal end of Buckingham. It is certain that the Duke received many warnings which he despised. The assassination kindled a tumult of joy throughout the nation, and a state libel was written in strong characters in the faces of the people. The passage of Felton to London, after the assassination, seemed a triumph. Now pitied, now blessed, mothers held up their children to behold the saviour of the country; and an old woman exclaimed, as Felton passed her, with a scriptural allusion to his short stature, and the mightiness of Buckingham, 'God bless thee, little David.' Felton was nearly sainted before he reached the metropolis. His health was the reigning toast among the republicans. . . . Alexander Gill, master of St. Paul's School, who was the tutor of Milton and his dear friend afterwards, and, perhaps, from whose impressions in early life Milton derived his vehement hatred of Charles, was committed by the star chamber, heavily fined, and sentenced to lose his ears, on three charges, one of which arose from drinking a health to Felton. At Trinity College Gill said that the king was fitter to stand in a Cheapside shop with an apron before him and say, 'What lack ye?' than to govern a kingdom; that the duke was gone down to hell to see King James; and drinking a health to Felton, added that he was sorry Felton had de-

prived him of the honour of doing that brave act. . . .

" . . . On a rumour that Felton was condemned to suffer torture, an effusion of poetry . . . was addressed to the supposed political martyr, by Zouch Townley, of the ancient family of the Townleys, in Lancashire. . . ."

The case of Caserio, murderer of Carnot, led to the first collision between the fact in Nature and the fancies in the formula. In a rejoinder to Lacassagne,¹² who had denied that Caserio appertained to a morbid group of regicides, Regis¹³ reiterates his position as formularist, and discusses the subject on the assumption that his proposed group is an established and accepted pathological entity. He says that, since he has established that new type, events¹⁴ have confirmed it, and that the future title of our contemporary anarchists should be "regicides of the day," a title which Regis congratulates himself on having prophetically anticipated.¹⁵

A repeated examination of the reasons which cause Regis to rank Caserio in his abnormal group shows the following to comply with the formula: First, Caserio was to all appearances a *solitaire*,¹⁶ second, he committed regicide; third, he did so in behalf of a so-called ideal cause. The existence of hallucinations, delusions, and the martyr conditions are not maintained; the former, in fact, is acknowledged to be lacking. The remaining condition, that this regicide was a degenerate, is maintained in a rather unusual way. At the outset, physical evidences of degeneration are disclaimed, and the "stigmata" are asserted to be "disharmony, instability, and mysticism." These uncorporeal stigmata are called characteristic, and are particularized as follows: First, Caserio's memory was remarkable, his energy was great, yet at the same time he lacked sentiment, was incapable of reflection, comparison, judgment—and this is "disharmony!" Second, Caserio was restless, and evaded his social duties by wandering from place to place; so much for "instability." Third, and still more marked, was the "mysticism." In

¹² Lacassagne: L'Assassinat du Président Carnot, *Bibliothèque de la Criminologie*, Vol. 1, 1894.

¹³ Lettre à M. le Dr. A. Lacassagne. *Archives d'anthropologie criminelle*, 1895, p. 59 (Vol. X).

¹⁴ See the Bresci case.

¹⁵ "Avec Caserio en effet, le dernier terme d'assimilation a été franchi, et désormais les anarchistes impulsifs méritent bien le titre de 'régicides d'aujourd'hui' que je leur avais par avance attribué." Regis, *loc cit.*, p. 50.

¹⁶ How far events might have furnished another dementi, like that in the unfortunate Bresci case, was, however, to be thought of. One letter of Bresci's, written to a fellow journeyman, concludes: "Since we cannot push our cause in France by speech, or by the press, we must employ the propaganda of deeds." This comes dangerously near an avowal of his purpose, and as it is not at all certain that all of Caserio's correspondence fell into the hands of the authorities, one cannot afford to be too sure as to the *solitaire* even here.

but regard the statement in the same light as others advanced to sustain insanity pleas in this field. Had the torture really been reintroduced by the Bourbons, as Dr. Mills has it, it is difficult to see how Louvel's belief that they were the ruin of France could be called an insane delusion. That they had practically ruined France once before, if a delusive belief, is a belief shared by some historians not ordinarily regarded as having been insane.

his infancy, Caserio was a beautiful cherub,¹⁷ whose angelic aspect in religious processions was the subject of general comment. But puberty came, and with it transformation into a rabid anarchist.

Of these three assertions, there is but one comment required concerning the first. The asserted "disharmony" rests among other things on "lack of sentiment." The third assertion is that of "mysticism." There are strange complications, but absence of sentiment and highly developed mysticism were one of the very strangest. Though metaphysics may conceive such union, it does not appear a frequent realization.

The second condition, aside from the conflicting evidence¹⁸ on this head, pictures a condition only too common, and of no essential consequence. Most stress is laid on the third factor. In introducing this subject, Regis reminds Lacassagne that the latter omits to recall this feature, although all the public journals had reported how the child Caserio appeared in religious processions impressing all by his piety, fervor, and angelic appearance; his seraphic countenance, in fact, rendering him the proper one to represent the infant St. John. One struggles with the impression that the public journals having some intuition of Caserio's future achievements hastened many years ago to behold the promising infant in anticipation of the celebrity he was one day to acquire. At all events, one can sympathize with Lacassagne who, not having possessed the same prophetic foresight, had not had the same opportunity of satisfying himself as to the degree to which the angelic Caserio approached the cherubs of Raphael Santi. Here we have the expression of a child's face in a religious procession and its character as interpreted by others, the circumstances being reminiscent by years, seriously offered as evidences of a mystic disposition. If that mysticism was no firmer rooted than this proof, one readily understands why at puberty it was subverted and replaced by the character of a rabid anarchist. One here recalls the Barcelona comrade of Caserio's who also took part in religious processions, but it was by throwing bombs at the processionists, killing some two dozen women and children; and he is not particularized as seraphic.

Lacassagne refers to Caserio's attempting flight and the emotion he betrayed on the scaffold as

¹⁷ One is not informed at what period the cherubic or seraphic type became transformed into the "pointed-ear" Caserio of later days!

¹⁸ An anarchist apostle, Pietro Gordi, asserts Caserio to have been an industrious, worthy young fellow; and states that his apartments proved so attractive to his fellow journeymen that they chose them to "bivouac in." Regis's representation of a shiftless vagabond, dodging his social duties, is, however, more likely to be the correct one.

not precisely supporting the regicide abnormality proposition. Regis rejoins that the manifestation of physical fear does not conflict with insanity. He is therein undoubtedly correct. But, while not conflicting with insanity, it does conflict with the picture of "an exaltation of thought and sentiment such as to absorb to itself all the energies, suspending so to speak material life, and consequently the sensibility to pain . . ." asserted in Regis's definition. Livid features, a voice strangled with fear, and an emotion which the will is barely able to control, do not correspond to it. Perhaps this was because Caserio did not possess any "sentiment" susceptible of exaltation.

An artist in search of a model of some of the humbler members of a gang of banditti would not find a better physiognomy than Caserio's, as represented in Talbot's article. It is true that the "degeneracy cult" has monopolized most of those feature aberrations which constitute signs of race, indicate the disposition, or betray the emotions of people; but the day is past when one need apprehend that contentions based on such features as Caserio's pointed ears would be taken seriously, aside from the fact that these same ears had been the appendages of so seraphic a child. It so happens that among the lower strata of the poble of Calabria, Sicily, and of Abruzzo particularly, striking reminders of an inferiority—not "degeneracy"—of race are observable. Frequent, besides a low forehead and high supra-orbital ridges, are pointed ears; and even more frequent is a peculiar setting of the eyes, which the writer cannot indicate better than by noting that they suggest the expression without actually repeating the contour of the eyes of a Chacma baboon. These beings are instinctive assassins: docile and abject slaves of others who obtain mastery over them; dangerous and treacherous to mankind otherwise, though abject cowards in the open.

To call such a type aberrant or degenerate is to involve meanings in either term not originally intended. Particularly as employed by Morel, "degeneration" designated a condition entirely at variance and inconsistent with fixation or permanency of type. Heterologous development, transformation of neuroses, and manifold divergence of deformities were asserted to mark the downward course of the degenerate line to its inevitable extinction.

A muster of the European cases shows the following numerical proportions indicating the extent to which assassins were outclassed by the martyr clause, the total number of episodes being

Unidentified or not denounced for a considerable period.	69
Escaped or had made preparations therefor.	22
Abandoned their project on the verge of performance.	9
Denied their guilt, shifted blame, turned "State's evidence" or solicited executive clemency.	38
	138

These 138 disqualifications apply to the participants in 118 episodes, of which 55 were of a fatal issue; a large part of the further exclusions apply to these also.

If the *attentats* of insane contrivance, 36 in number, are deducted, exactly 200 in which sane actors were concerned remain; and of these, the ratio of those in which the application of the single test of martyr character proves excluding, is 59 per cent.

A number of these would be excluded, also, by other clauses of the definition; but, to avoid repetition, the sum total of their excluding conditions will be mentioned in the general summing up.

Carried forward.	138
Had personal motives or political motives of a decided egoistic tinge.	56
Conflicted with the <i>solitaire</i> condition, because several conspirators cooperated.	73
Ditto, because the single actor had partners in knowledge before the act.	34
	301

Number of cases to which exclusions apply.	152
Number of cases to which exclusions do not apply.	48

The 152 episodes average practically two causes for exclusion in each case. In some there are as many as 5 such, in others only a single one.

These 124 disqualifications affect 68 individual assassins; 48 remaining to whom the having had accessories is not imputable, in addition to 36 insane assassins. Taking the aggregate of 152 single actors, the ratio disqualified by the terms of the definition is 44.73 per cent. Taking the sane alone, that ratio rises to 58.62 per cent.

As has been stated there are no very evident disqualifications for 48 of the singly acting sane assassins; on examining their affiliations, it is found that there were members of the following secret societies which preached and practised assassination:

"Young Europe" and kindred bodies.	5
Internationale and Workingmen's clubs.	10
Anarchists	13
Nihilists	12
Invincibles	1
	41

A clearer fields for the comparison, in some respects, is obtained by limiting the analysis to cases where a single actor perpetrated or intended to have perpetrated, an *attentat*; the entire period from 1501 to 1903 is covered by the following cases:

Number of single actors, sane.	174
Excluded because identity was successfully concealed, either for good or for a considerable period.	30
Escaped or had prepared to escape.	34
Abandoned purpose on the verge of consummation.	7
Denied guilt, shifted blame, or petitioned for executive clemency	20
Personally tinged motives.	39
Agent of formally organized conspiracy.	50
Had partners in knowledge or made indiscreet communication before the act.	17
Total	197

Among the 152 episodes disqualified in these 197 points were 46 represented in secret organizations:

	EXCLUDED AMONG THE 152 EPISODES.	ADDITIONAL.	TOTAL.
"Young Europe," Internationale, etc.	9	11	20
Anarchists	19	10	29
Nihilists	15	8	23
Invincibles, and others.	3	3	6
	46	32	78

That the claim of an assassin to being a single actor must be looked on with suspicion where vainglory is an evident feature, need not be particularized. That the weight of evidence in the case of recent terrorist regicides is decidedly in favor of the single actors having been quasi-official delegates or accepted volunteers will appear clear in the light of the following considerations.

It is the exceptional occurrence that induces a selected agent to betray his position to the authorities or to prefer suicide to an underaking, which offers, if desperate chances, still some chance of a continued existence on earth. Yet there have occurred within a few years the suicides of de Bungal, Pietrucci, and Scanzio, which showed these to have been lot-chosen to kill Campos-Salles, William II and Victor Emanuel II. Conversely, in Merna's case, the attempt which he failed to make being consummated by others, thereby led to the revelation of the motive of his suicide. Paggini's murder proved the existence of the, till then, unsuspected plot to assassinate President Cuestas; for Paggini was killed because this lot-chosen assassin was suspected of contemplating surrender to the authorities, like Pulgar. Had Paggini or the above-named suicides carried out their mission and remained taciturn, they would have doubtless and erroneously been classed as *solitaires* by the "abnormity" doctrinaires, as Angolillo is classed. The same reasons for declaring Angolillo abnormal existed also in the case of Ruiz. Both were anarchists; both had the motive of avenging the severities against their fellows;

and both attacked the same Canovas de Castillo. The differences between the two were merely that one succeeded and the other failed; and that one used a revolver and the other a bomb. Both died, the successful one on the scaffold, the other by his own projectile, neither revealing accessories or confidants. So far each was as good a *solitaire* as any in Regis's list, and indeed better than several in that list. But mark the difference wrought by a fortuitous trifle. The bomb which killed Ruiz, wounded Suarez. The wounding of Suarez led to a bit of inquisition on the part of the authorities, by whom it became ascertained that Ruiz had been Suarez's cat's paw. But events, not content with a single *dementi* of the *solitaire* doctrine, decreed the further revelation that Suarez had also been the accessory of Pallas, another bomb-thrower and candidate for *solitaire* honors. When a single accident sweeps two names off the *solitaire* list, what shall be said of the deductions to be drawn from the cases of suicides, bearing in mind the many chances against the revelation of their motive? The fact that this kind of motive became established in seven cases, seems to justify the supposition of a much larger number of the unascertained ones.

Notwithstanding the reluctance one whose irresolution caused his abandoning regicidal intentions must feel to admit having entertained such and having failed, this was ascertained in four cases by direct, and in two by circumstantial evidence.

That even the coarsest of assassins, if he considers himself bound to secrecy in no other respect, would remain loyally taciturn regarding persons who had undertaken to procure for him the means of escape or concealment in the event of his eluding immediate seizure, renders the discovery, in no less than 16 cases, of preparations of this character having been made, equally significant.

That of the aggregate of nigh 30 cases representing these three groups, which indicates the probable but unrevealed status in a larger number, none complied with the formulæ, becomes clear when it is recalled that the latter makes the contemplation of martyrdom an essential feature. The suicide shows that he dreads assassinating others more than killing himself; and he certainly cannot be regarded as driven toward regicide by any irresistible impulse or dominant conception. True it is, that there is a dominant power acting here, but it is not of the transcendental kind; it is a fear of the secret committee who, having arranged his lot-chosen servitude as agent of their project, have also reminded him of the oath which he once perhaps lightly took as a mere matter of form, but

the dread alternative of violating which now stands vividly before him. In this predicament a way out of the dilemma has been found by such as Pulgar and that general's son who, selected by the nihilist committee to kill Nicholas II, placed himself and his secret in his father's and, through his, in the Czar's hands. The former confessing his imposed enterprise to the authorities, these, in return for the information, granted him the protection a prison affords *pro* and *contra*.

Cecilia Renault's case does not lend any strength to the "irresistible obsession" idea. Her visit to Robespierre, so far from the implacable determination of a zealot, showed rather intent to simulate a plot sufficiently well to secure her wished-for death. A comparative consideration of her little basket with its two miniature knives, on the one hand, and her elaborate wardrobe preparations for her prospective prison and guillotine experience, expose what was the single serious purpose she had, namely, suicide by indirect means. How far from the affectation of a supreme judiciary position she was, her humble apology to her parents for having involved them in the consequences of the adventure sufficiently shows.

(To be continued.)

PERSONAL EXPERIENCE REGARDING ANÆSTHETICS.

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AMYL NITRITE.

It will not take long to dispose of this agent as an anæsthetic. I have used it but once, and would not think of doing so again. It was administered to a robust young man on whom an operation for varicocele was performed (fully three ounces were used). It only produced partial anæsthesia, caused tremendous palpitation of the heart, severe cerebral congestion, and was followed by severe nausea, acute delirium, and general prostration which lasted several days.

SPINAL COCAINIZATION.

My personal experience with subarachnoid injection of cocaine has been limited to fifteen cases. The details of most of these cases were published in the *Philadelphia Medical Journal*, December, 1900. I followed the technique of J. B. Murphy, with the exception that I used ethyl chloride before making the lumbar puncture, and also administered morphine and strychnine hypodermically, in order to mitigate, if possible, nausea, nervousness, and shock. In the last three cases the spinal fluid itself was used as a vehicle for the cocaine, as recommended by Guinard; but I did not see that this method had any advantage over the sterile solution ordinarily used.

Of my fifteen cases, twelve were surgical, three obstetrical. In the latter the effect was not at all satisfactory. The injection apparently lost its anæsthetic effect just at the time required, but left its unpleasant effects—nausea and extreme nervousness. No doubt the injection was made too early in the progress of labor. At any rate, the bother of administration and the unpleasant effect in these, only three cases, are sufficient experience for me in this direction.

In the surgical cases there was one abdominal section for tuboovarian abscess. The incision was quite long, and was made without the least distress to the patient; but when I inserted my fingers into the abdominal cavity, she became restless and highly hysterical. A loop of intestine presented itself in the wound, which, unfortunately, the patient saw. She became maniacal, and it was with difficulty that I was able to extract my hand from the abdominal cavity, such were the powerful contractions of the abdominal muscles. It is needless to say that the operation was finished under chloroform narcosis. The patient told me subsequently that it was not so much the pain, but a nervousness she could not control.

The other cases were in conditions less severe. Results were fairly satisfactory, but not sufficiently brilliant to cause me to become an enthusiast over spinal cocainization, when any other form of anæsthetic can with any degree of safety be used.

ETHYL CHLORIDE.

For minor surgical procedures, conditions which could hardly be dignified by the name "operation," I have found this substance very satisfactory as a local anæsthetic.

LOCAL ANÆSTHESIA.

The local and hypodermic administration of cocaine has many indications, and I have found it of immense service in innumerable cases. The principal indications for its use are: first, when the operation will be short; second, when no especially sensitive structures are to be incised; third, when every part involved in the operation can be brought under the influence of the cocaine; fourth, in patients whose condition of extreme exhaustion is such that the additional shock of a general anæsthetic would take away their only chance of life, as in some cases of profound acute peritonitis, internal hæmorrhage, intestinal obstruction, etc. I have used cocaine hypodermically for the above reasons in a large number of cases with very satisfactory results.

When cocaine was first introduced, I used it locally on mucous membranes, as in the nose, throat, mouth, vagina, rectum, penis, with good results so far as the anæsthetic effect was concerned; but I soon discovered I was using it too freely and in a too strong

solution, as it produced serious constitutional disturbances, principally extreme prostration, nervousness to the extent of almost uncontrollable hysteria, secondary hæmorrhage, etc.

Two cases were almost fatal.

CASE I.—A woman, forty-five years of age, came to have her tonsil removed. I sprayed her throat freely with a four per cent. solution of cocaine, and removed the tonsil without the least pain. Being in a hurry she immediately left my office, "feeling fine," but did not go far before she fell. I was immediately sent for, found her pale, heart weak, cold perspiration; in fact, extreme exhaustion. Immediately I administered brandy, strychnine, and it was here I learned that morphine was a true antidote. Its use was indicated by severe pain in the throat, and uncontrollable nervousness.

CASE II.—A girl, on whom I operated for a small internal hæmorrhoid, using free local applications of an eight per cent. solution of cocaine. Her condition was similar to that of the former case. Since then I have been extremely careful in the use of cocaine.

I have done several abdominal sections under the use of cocaine with gratifying results. I have used the infiltration method in hernia and appendicectomy. In these cases one observation was quite important; namely, that the non-inflamed peritonæum, especially the parietal, is quite tolerant of manipulation without causing pain.

My most satisfactory results with cocaine as a local anæsthetic have been on the extremities. Here I have performed amputations, removed growths, curetted ulcers, ligated vessels, sutured wounds, etc. I find that, if the extremity can be elevated until gravity has quite blanched the member and an Esmarch is then applied, local anæsthesia has a wide range of usefulness, and the patient does not suffer from such severe constitutional disturbances as when the cocaine is permitted to enter the general circulation.

SUGGESTION AND DECEPTION.

In a few instances I have been able to perform minor and superficial operations by assuring the patient that the part to be operated on was not susceptible to pain, and that no pain could possibly accompany the operation; also by allowing the patient to believe that I was using a powerful local anæsthetic when none at all was used but sterile water or alcohol. In a very few instances I have been able to place a patient in a hypnotic state sufficient for a minor operation.

One case in particular is interesting.

CASE III.—One morning, on entering my operating room, I found my assistant dressing a severe burn of the leg, the patient a boy about twelve years old. The boy was frightened, crying, and apparently suffering severe pain. I harshly criticised the assistant for causing such suffering, remarking that

I would give the boy something to breathe that would prevent his feeling the dressing. Placing over his face an old-fashioned ether inhaler, which contained a metallic valve, making a distinct click with each respiration, I assured the boy that as soon as he ceased to hear the click he would be asleep, and would not feel the dressing. I instructed him to take long, fast breaths, controlling the valve with my finger, so that the clicking sound became less distinct with each respiration. In about one minute I stopped it altogether, telling my assistant to continue the dressing. As soon as the dressing was finished, I allowed the valve to click, saying to the boy, "The dressing is finished. Wake up!" During the dressing the boy was apparently asleep, and suffered no pain whatever. I thoroughly believe in this form of anæsthesia, and strongly recommend its use whenever practicable. Gaining a patient's confidence and allaying his fears is a great help in this direction.

GENERAL ANÆSTHESIA.

This is the question in which we are most deeply concerned. I do not care much for the various combinations of chloroform and ether, preferring to use one or the other alone. Sometimes it may be advisable to discontinue the one and substitute the other; but even this method does not seem to me to have many indications. General anæsthesia is to be preferred in all cases where there is not some good and sufficient reason to contraindicate its use. A feature of general anæsthesia too little appreciated, if not often forgotten, but which is one of its great advantages, is that blessed oblivion which envelops the patient throughout the operation. He loses consciousness in his own bed; he awakes there. He escapes all the horrors of the operation which the imagination can depict and fear inspire.

ETHER AS A GENERAL ANÆSTHETIC.

So far as safety is concerned, I am well aware that ether has the preference. Owing to this factor, it is more largely used, especially here in the East. I have had two deaths which could be directly attributed to ether. I have never seen a death from chloroform.

It is the reputation for safety which ether has that has made it the popular anæsthetic. Surely it has many disagreeable features: length of time required; quantity used; struggling stage of excitement; irritating effect on the respiratory tract. It is almost invariably followed by nausea and vomiting. Its effects last for several days, the patient complaining of smelling and tasting it. It is highly inflammable, a factor which generally precludes its use in obstetrical practice.

Regarding its inflammability, I wish to report a case. In the early antiseptic days, when it was thought necessary to flood the field of operation with a carbolic spray, I was administering ether. The vapor ignited from the flame of the spray apparatus,

the can blew up in my hand, and everything was ablaze. By prompt action the patient was saved from serious injury. I lost my hair and my first and only red side-whiskers.

I consider ether more dangerous than chloroform in Bright's disease, diseases of the respiratory tract, and in grave vascular diseases. Since my return to New York, however, one year and a half ago, I will confess that I have become more tolerant to ether. In a number of cases it has been administered for me, preceded by nitrous oxide, by Dr. H. W. Carter, with very satisfactory results; but at the same time I still notice many disagreeable features attending its use. From my own personal experience, I cannot look upon ether as safer than chloroform, and it has many disagreeable complications. The proper administration of any anæsthetic requires an expert. Especially is this true of ether.

CHLOROFORM.

Perhaps you may think I am prejudiced in favor of chloroform. I am, as a result of my own personal observation. My experience with chloroform began in 1880, while assistant to Donald Maclean, then professor of surgery in the University of Michigan. During that service I administered chloroform about five hundred times, and fortunately did not meet any unfavorable complications which would alarm me or discourage me in its use. Since then I have invariably had chloroform administered as a general anæsthetic.

Chloroform is the anæsthetic to be used in operations about the head, face and neck. Here the anæsthetist, if he uses ether, will with his cumbersome apparatus be in the operator's way; also he is liable to infect the field of operation. With a Junker's inhaler, chloroform vapor can be administered either through a nose or trachea tube, and the operator not interfered with. In operations about the thorax and abdomen I prefer chloroform, for the respiratory movements are not so interfered with as when ether is used. It is sometimes very embarrassing to suture a delicate peritonæum with the abdominal wall heaving up and down like a stormy sea, a condition ether sometimes produces.

I have often heard it said that death from chloroform was so sudden that there was not time to resort to restorative measures. This I do not believe. I have seen many cases where, if a prompt recognition of unfavorable symptoms had not been observed and treated, death would undoubtedly have taken place. Extreme pallor; shallow respiration; cessation of capillary oozing; diminished force in heart action, that is, compared to what it had been before the operation began; dilated and inactive pupils: all these are symptoms which, if recognized and treated early, may avoid serious trouble.

Circumstances have forced me many times to have chloroform administered by laymen. Knowing the danger, I kept close watch of its action. So far I have been fortunate. I should be afraid to trust either under similar circumstances. I have never been careless with chloroform. I know its dangers, and have taken every precaution to avoid them. In nervous, frightened, and exhausted cases, and alcoholic patients, I have frequently thought it advisable to administer morphine and strychnine hypodermically, preceding the anæsthetic. This has a tendency to fortify the heart's action and bring about tranquility of the nerve centres, and generally less of the anæsthetic will be required.

There is one thing regarding anæsthetics that I fully recognize; namely, there is no agent which in itself is sufficient to paralyze sensation to the extent of permitting a surgical operation without pain, but that its administration is attended with a degree of danger which must be understood and guarded against. I also believe that many deaths are attributed to the anæsthetic which are due to other features of the operation. Recognizing the danger of anæsthetics as I do, I strongly recommend the employment of the special anæsthetist whenever it is possible to secure his services.

PRIMARY TUBERCULOSIS OF ABDOMINAL LYMPH GLANDS IN THE ADULT.*

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This is a subject which has received comparatively little attention, undoubtedly because primary tuberculosis in the adult in this location is not a common condition, and because the clinical diagnosis must at best be difficult and uncertain. The importance of tuberculosis of the abdominal lymphatic nodes should not be underrated since, aside from the necessity of understanding the disease in order to exclude it in making a differential diagnosis in obscure abdominal conditions, it must be remembered that the tuberculous glands in this part of the body may be the starting points of tuberculous peritonitis (Teleky, Virchow, Councilman) or even of pulmonary tuberculosis (Woodhead).

The credit of directing attention to the clinical side of the question is due to Peterson, who, in a thesis read before the American Gynæcological Society in 1897, reported several illustrative cases, one being in an adult. Primary tuberculosis of the mesenteric glands is comparatively common in

children. J. Sims Woodhead, from an analysis of 127 cases of tuberculosis in children, found tuberculous ulceration of the intestine in 43 instances, and an involvement of the mesenteric glands in the tuberculous process in no less than one hundred cases, or nearly 79 per cent. In fourteen cases the glands only were affected, that is there was no evidence of past or present tuberculosis discovered elsewhere in the body. Carr reports five instances of isolated tuberculosis of the mesenteric glands out of 120 autopsies made on children.

As to the frequency of primary tuberculosis of the abdominal lymph gland in the adult, statistics are wanting; at least a thorough search of the literature has failed to show any. Through the kindness of Professor Ludvig Hektoen, of Rush Medical College, I have obtained access to the post-mortem records of that institution. Tuberculous glands were looked for among 232 consecutive autopsies, special attention being given to the glands about the cæcum, those found at the root of the mesentery, and those about the aorta, in the lumbar region. Eighty-six bodies, or 37 per cent., were tuberculous and 146, or 63 per cent., were non-tuberculous. Of the 86 tuberculous cases nine showed involvement of the abdominal lymphatics. Of the non-tuberculous cases only two macroscopically showed evidence of tuberculosis. That the macroscopic appearance may be relied on fairly well to show whether or not tuberculosis of the glands existed, is shown by the results of microscopical examination. Of the 232 cases examined at the autopsies for enlarged mesenteric glands, the glands from 26 bodies were subjected to microscopical examination, and in no case did the microscope reveal tuberculosis when it was not evident to the naked eye.

The tubercle bacillus probably in a great majority of instances when isolated tuberculosis of the glands exist, reaches the latter by way of the gastrointestinal tract. It is introduced into this with the food, especially with milk (Orth). Bacteria may be inhaled and arrested by the mucus of the respiratory tract. If this is swallowed, a thing which is of frequent occurrence, especially in children, favorable conditions for the transmission of the bacilli may easily develop. After they have been introduced in the gastrointestinal tract the leucocytes appear often to be the active agents in their distribution. We know from the investigations of Schaefer and Zawarkin that the leucocytes are the active agents in the absorption of fat particles, passing out into the lumen of the intestine, loading themselves with fat globules, and passing back into the mesenteric lymphatics. Macallum showed the leucocytes to have a similar function in the absorption of iron from the intestine, by his interesting experiments

* Read before the Chicago Pathological Society, March 9, 1905.

on lake lizards. Adami makes the statement that "There can be no doubt that under certain conditions leucocytes are constantly passing out on to the free surface of the digestive tract and passing back, and such leucocytes taking up various food stuffs are able also to take up bacteria." Ruffer has shown that the leucocytes of Peyer's patches of the rabbit pass out between the layers of epithelium cells lining the intestine and enter the lumen of the intestine. Examination of the intestinal wall microscopically with the high power showed that some of the leucocytes between the epithelial cells contained microorganisms in their interior. The conclusion he draws is that the lymphocytes of the rabbit's Peyer's patches wander to the surface of the intestines, seize on the microorganisms present, and carry them into the interior.

Cornil et Babes and Tschistovitch call attention to experiments made in Cornil's laboratory, by Dabrolonsky. After feeding guinea pigs on tuberculous material tubercles were found in the deep layers of the mucosa and in Peyer's patches over which the epithelial layer was unaltered. Undoubtedly the leucocytes were in some instances responsible for carrying the bacilli into these deeper tissues, as Tschistovich states that sometimes tubercle bacilli were found between the epithelial cells lying within leucocytes. In the same experiments the mesenteric lymph nodes were found involved in the tuberculous process even earlier than the mucous membrane of the intestine. According to Jordan, Cornet has similarly proved that tubercle bacilli can pass through the intact mucous membrane in animals and cause glandular tuberculosis.

In this connection the experiments of Nicola and Descos are of interest. They fed starving dogs with milk to which a large percentage of fat and some tuberculous material had been added. After three hours or three hours and a half, the animals were killed and some of the chyle obtained from the thoracic duct was injected into guinea pigs. From six dogs so treated they obtained three positive results, that is, they succeeded in producing tuberculosis in the guinea pigs so injected. This shows that the tubercle bacilli are able to pass the healthy mucous membrane of the intestinal tract in the dog in a very short time. If this can occur in the dog, how much easier in man, who is not by any means as resistant to tuberculosis as the dog? A catarrhal desquamation of epithelium, such as occurs in cases of acute or chronic inflammatory processes of the intestinal tract in man, would, if tuberculous material were present, increase the liability to infection. That the tubercle bacillus can pass through the uninjured mucous membrane without causing local lesions need not be surprising. We have an analogous condi-

tion in the lesion caused at a distance by the typhoid bacillus in cases where there are no intestinal lesions, but abscesses and other localized evidences of its presence elsewhere.

Admot records a case of meningitis probably due to the typhoid bacillus, in which autopsy showed entire absence of ulceration or other abnormality of both large and small intestines. Widal cultivated the typhoid bacillus from the spleen, the lungs, and the pleural liquid, in a case presenting the symptoms of typhoid fever in which no intestinal lesion could be found. Du Cazal (quoted by Flexner) reports a case in which the closest inspection failed to show lesions in the intestine, but from which, nevertheless, typhoid bacilli which behaved in a typical manner were isolated from the spleen. Cheadle reports a case which reacted to the serum test and from the urine of which the typhoid bacillus was separated on the twenty-sixth day. At the necropsy no ulceration of the intestine was visible and Peyer's patches appeared to be normal. The mesenteric glands and liver were enlarged.

Regarding the clinical symptoms and signs for which isolated tuberculosis of the abdominal lymph glands is responsible we are still more or less in the dark. Peterson regards obscure abdominal pain and localized tenderness in young children with tuberculous histories as of importance. Thompson makes a statement that the pain complained of by the patient affected by abdominal gland tuberculosis is never acute or analogous to colicky pain, unless the tuberculosis is accompanied by inflammation or ulceration of the intestinal canal. The pain is not superficial and is not accompanied, like that of chronic peritonitis, with distention of the belly, vomiting, and dulness, nor is it attended, like that of ulcers, with diarrhoea. That the disease may, however, cause acute symptoms without any ulceration or acute inflammation of the peritonæum being present, is demonstrated by a case of Richardson. The patient was a boy, aged five years, who was taken, while apparently perfectly well, with fever, rapid pulse, pains in the abdomen, and constipation. Two days later, a tenderness was found in the abdomen, in the region of the appendix, and a diagnosis of acute appendicitis was made. Immediate operation showed a healthy cæcum and an unaffected appendix. In the mesentery of the ileocæcal coil were numerous enlarged glands, varying in size from that of an English walnut to that of a large pea. They were removed; most of them were pink and juicy, but some were found to have undergone cheesy degeneration. Diagnosis (Dr. Mallory): "tuberculosis." Richardson remarks that no manifestations of local or remote tuberculous infection developed, the convalescence being perfect and permanent.

The presence of a nodular abdominal tumor in connection with localized abdominal pain, without diarrhoea, and extending over a large period of time is also significant.

Owen has described a case somewhat similar to that of Richardson. The patient was a young woman twenty years old, who had been taken with pain in the abdomen and with vomiting. When three years old, she had an abscess in the region of the hip, which kept up a discharge until her fifteenth year, when she underwent an operation and was cured. Her vomiting continued and the abdominal pain increased; bowels constipated. On abdominal section, nothing could be discovered but a tuberculous inflammatory condition of all the mesenteric glands. No miliary infection of the peritonæum or effusion: Recovery.

The discussion of the treatment of primary tuberculosis of the glands in this part of the body must be, to a large extent, theoretical. Here, as elsewhere, the disease will demand the usual general treatment. Outdoor life with a maximum of fresh air and sunshine, nutritious and strengthening diet, together with tonics, will be of importance. Surgical intervention may also be considered. Peterson concludes: "From the position of the peritonæum, lying as it does upon a bed of lymphatics for which the mesenteric glands act as filters, there is every reason to believe that the same changes produced by cœliotomy on peritoneal tuberculosis will occur in the tubercular mesenteric glands. Hence abdominal section should be advised in tubercular mesenteric disease as soon as the abdominal symptoms make the diagnosis reasonably certain."

Where the tuberculous process involves a distinct group of glands so situated that radical removal is possible, such a course would seem to be indicated.

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GENERAL REMARKS ON DISEASES OF THE STOMACH.

By HARRY WARREN LINCOLN, M. D.,

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It is entirely unnecessary to use any form of guide for the purpose of introducing a stomach tube; to lubricate the tube with anything save moistening it with warm water, or to anæsthetize the throat before introduction. This point, I am well aware, has been often emphasized, both in textbooks and elsewhere, but I make it here because I believe that the less demonstration made over this matter, the better the great majority of patients will behave.

The passage of a stomach tube is not a *sine qua non* in every case, even though there may be no contraindication.

The diagnosis, prognosis and treatment should not be limited to findings with the tube, either after the test meal or in return wash water from the empty stomach; especially upon one examination.

One of the greatest errors made is to permit *any* patient to perform gastric lavage upon himself. It is better from every point of view to do this for him gratis, if finance is a matter of question. In the first place, he is liable to wash his stomach too soon after eating, and thereby to remove much nutrition as time goes on; or he may overdilute the organ with large amounts of liquid, or improvise upon your instructions, either as to solution to be used, or the temperature of the same, and in many other little ways. Furthermore, he will be sure to recommend the procedure to his friends indiscriminately, doing them perhaps no good, and at the same time precluding a consultation for you.

We almost daily hear stomach washing, and indeed the specialty under consideration, spoken of in a derogatory manner, and not, we must confess, entirely without cause. There has been and still is too much unscientific, indiscriminate lavage of the stomach, by members of our profession. A stomach should not be washed unless there is a *bona fide* indication therefor. I believe the majority of patients, taken as they come to our offices, will do well without local treatment.

Frequently, persons will come to us for the express purpose of having their stomachs washed; and I have had them go elsewhere because I refused to practise lavage when there was no indication.

As to diet, let me strongly recommend full feeding in the vast majority of patients; for the reason that by the time they come to the stomach specialist, they have had recourse to all the varied "diets," and are in a state where they "cannot digest anything." The plan to be adopted is to educate the organ at fault to *do something*; and a full diet, given in small amounts at frequent intervals at first, will usually accomplish this result. It must be admitted that to gain the confidence of the patient in this matter of feeding, is one of the hardest problems with which we have to deal. It is perhaps unnecessary to state that this method of procedure does not apply to ulcer, cancer, where there is impaired motility, or even in benign cases in which the motility is at fault. At the beginning, the desire for food or its absence should be entirely disregarded, for if we wait for the appetite to call for food, our patient may in the meantime pass away from inanition. As long as the food is not actually vomited, *feed!* Never mind heaviness, gas, etc., *post cibum*, which may be increased for a time. Close inquiry into the subjective side of the patient may bring out the fact

that from the beginning, the patient has felt better for a short time after eating, but the subsequent distress has led to the impression that too much, instead of too little, food was being taken. I usually write down simply the few articles of diet that I wish to be avoided, rather than long diet lists, as was my former custom; it condenses the thing a good deal and allows the patient a broader latitude of choice, thereby giving him confidence that his stomach yet has capabilities of function.

Going now back to test meal examinations: The following point has been of some service where it is not convenient to make the ordinary chemical tests. If the material taken or vomited from the stomach adheres very tenaciously to glass, we may at least assume that there is sufficient gastric juice for digestion, whereas I have often observed that, in subacid and achylic specimens, the material is readily washed off with either hot or cold water. Understand, I do not advise this to the exclusion of chemical test, but like so many other little points, it may be of assistance, taken in connection with the rest of the examination of the patient.

Attention to the condition of the teeth is of very great importance, as need of dental work often causes the foul breath or coated tongue to remain unchanged when the gastric conditions are improving.

Above all, guard against the error of forgetting that there are other important organs than the stomach and intestine. More success to both patient and physician will often result from some little detail gleaned from family history, physical examination of the chest, abdomen, etc.; or from careful observation of the blood, urine, or feces, than from several very minute examinations of the gastric and (small) intestinal contents alone. Examination of stomach contents must be neither under nor overrated. The work done along this line in the last twenty years is inestimable in value, but we must not (if we would practise this specialty successfully), rely solely upon test meal examinations, findings from return wash water, gastric lavage with the various solutions, internal electricity, etc., and overlook the consideration of the patient's general physical and mental condition.

The neurotic element is nowhere more important than in the management of gastrointestinal disease. To eliminate this factor would mean failure in nearly 50 per cent. of cases. Here, as elsewhere in medicine, "suggestion" has a large field. As before alluded to, the physical and chemical examinations may be practically negative, while a good result may be obtained by a careful observation of the patient from a psychological point of view.

REPORT OF CASE OF PISTOL SHOT WOUND IN NECK: LAMINECTOMY; RESULTS.*

By JOHN C. MURPHY, M. D.,

ST. LOUIS, MO.

Laminectomy has been performed with more or less benefit ever since asepsis has been a recognized factor in successful surgery, and in no part of the human economy is it more necessary strictly to adhere to the teachings of surgical cleanliness, in all that the term implies, if we would save our patients from death by septic meningitis with all its attendant horrors. These preliminary remarks are prompted by observation in the various city institutions where patients have died from septic meningitis following operations of this character. We can combat infection in other parts of the body with much greater success than in the spinal cord and brain, as Nature seems to be handicapped when infection invades that region.

CASE.—W. S., aged thirty-three years. Occupation, clerk; rather poorly nourished, of tuberculous tendency. This man was shot on the night of December 24, 1902; a .32 calibre bullet entered the neck about two inches and a half above the clavicle to the right of the trachea, taking a downward course, lodging beneath the skin above the scapula. He was removed to one of the city institutions, where he was found to have a motor paralysis of the right arm and leg. The bullet was removed, the wound healing completely in a short time. The paralysis became more marked during the following week. At the end of four weeks he was removed to his home. When I saw him he was bedridden, with large bed sores on the back, feeble intermittent pulse, extreme debility, and motor paralysis of right leg and arm. He was also suffering great pain along the course of the ulnar nerve. Examination at the point of injury proved negative. I had him removed to the Deaconess's Hospital, where I operated on February 1st. An incision was made to the right of the spinous processes, and the muscles dissected back by blunt dissection. The spinous processes and laminae of the fifth and sixth cervicals were removed, exposing the dura. A spiculum of bone about half an inch long was found embedded in the dura and penetrating the cord. No other injury was apparent. The removal of the fragment of bone was followed by a small quantity of cerebrospinal fluid, a stitch of fine catgut closed the slight tear in the dura. The muscles were carefully sutured over the denuded portion of the cord with catgut, and the skin closed with silkworm suture. Recovery

* In the time that has elapsed since the operation there has been a marked improvement in the patient's condition. He is now able to walk by the aid of a cane, having regained the use of his right leg and partial use of his right arm. Bed sores have healed and bowels and bladder are now performing their respective functions normally. Time promises even better results.

was uneventful, the wound healing kindly, the stitches were removed on twelfth day; union complete, temperature never above 101° F.

I do not report this case on account of its favorable result, as the result was not good. The only benefit was the relief from pain which has been absent since the operation. The paralysis remains the same, which is probably due to inflammatory changes in the cord from the trauma and pressure. I believe that, had this man been operated on shortly after the injury, the result would have been very gratifying, but he was allowed to lie for weeks without any effort being made in his behalf.

It does not fall to the lot of one individual to have many such cases, and it is only by reporting failures as well as successes that anything like reliable statistics can be formulated. I would close this brief report with a plea for early operation in injuries to the spine accompanied by paralysis, as delay can only result in disaster to the patient. In surgery of this region, as in other parts, there is a favorable time for operation, which, if the surgeon fails to take advantage of it, results in death or worse to the patient, and humiliation to himself.

Dr. Martin's Appeal.—The following appeal was issued on August 18th to every physician in Philadelphia by Dr. Edward Martin, Director of Public Health and Charities:

TO THE MEDICAL PROFESSION.

Dear Doctor: For the better protection of the public health, your assistance is asked in aiding the Bureau of Health to stamp out smallpox, which is prevalent in this city. You are requested to report all cases of chickenpox to the Bureau of Health, and to use your influence in having all persons not vaccinated to have it done at once. In those cases where they have not been successfully vaccinated in the last five years, they should be revaccinated as soon as possible. The great number of smallpox cases reported at this time are among unvaccinated people, and a great number have refused vaccination from vaccine physicians. The Bureau of Health will have a vaccine physician on duty at Room 616, City Hall, daily, between the hours of 9 o'clock a. m. and 9 o'clock p. m. After 4 p. m. persons desiring to be vaccinated will take the elevator at the southeast corridor of the City Hall. If by any means cases cannot come to the City Hall to be vaccinated, a vaccine physician will call at their homes or places of business on notice to the Bureau of Health, Room 616, City Hall. After August 10, 1903, the office of the Bureau of Health will always be open—never closed. The Medical Inspector will give injections of antitoxine for diphtheria on request of attending physician. (Signed) Edward Martin, Director.

Our Subscribers' Discussions.

A SERIES OF PRIZE ESSAYS.

[Questions for discussion in this department are announced at regular intervals. So far as they have been decided upon, the further questions are as follows:

XXV.—How do you treat delirium tremens? (Under adjudication.)

XXVI.—How do you treat "habitual abortion"? (Under adjudication.)

XXVII.—How do you treat paraphimosis? (Answers due not later than September 10, 1903.)

XXVIII.—What do you rely on in the diagnosis of small-pox in the papular stage? (Answers due not later than November 10, 1903.)

Whoever among our subscribers (with the limitations mentioned below) answers one of these questions in the manner most satisfactory to the editor and his advisers will receive a prize of \$25. No importance whatever will be attached to literary style, but the award will be based solely on the value of the substance of the answer. It is requested (but NOT REQUIRED) that the answers be short, if practicable, no one answer to contain more than six hundred words.

Only subscribers to the NEW YORK MEDICAL JOURNAL and PHILADELPHIA MEDICAL JOURNAL (including regular and volunteer officers of the Medical corps of the United States Army, Navy, and Marine Hospital Service, commissioned or under contract) will be entitled to compete, and all persons known to be engaged in medical journalism are disqualified. This prize will not be awarded to any one person more than once within one year. Every answer must be accompanied by the writer's full name and address, both of which we must be at liberty to publish.]

The prize of \$25 for the best essay submitted in answer to question XXIV has been awarded to Assistant Surgeon W. C. Rucker, of the U. S. Public Health and Marine Hospital Service, whose paper appeared on page 365.

PRIZE QUESTION NO. XXIV.

THE TREATMENT OF THE SUMMER DIARRHŒA OF CHILDREN.

(Concluded from page 370.)

Dr. Adrian A. Landry, of Paincourtville, La., writes:

We will consider this subject first in its most important phase, *i.e.*, prophylaxis. It is settled beyond dispute that summer diarrhœa is due to some infection of bacterial origin, plus in most cases a predisposition in the shape of a faulty diet and bad hygienic surroundings, to which may be added heat and humidity as ætiological factors, inasmuch as they tend to lower vitality and diminish tissue resistance. The modes of infection are numerous, of which the most frequent in the artificially fed is by the milk. The utmost care should be used to prevent its contamination. Bottles and nipples should be kept scrupulously clean, the nipples being boiled every morning in a sodium bicarbonate solution. Water, when its source of supply is in the least doubtful, should be boiled. As to other modes of infection, there may be mentioned impure air, especially when dust-laden, as dust is known to contain a

great number of putrefactive and other organisms; and saliva, contaminated by the child's dirty fingers and clothing, and the pernicious habit of all children of putting everything they lay their hands on in their mouths.

In the breast-fed, the mother should see that her breasts and nipples are kept clean and free from fissures, erosions, and excoriations. This is a rarer mode of infection, preventable by careful attention to the breasts and nipples during the latter months of pregnancy and during lactation, and by personal cleanliness.

After the exclusion of bacteria the most important phase of prophylaxis is the prevention of a predisposition through faulty diet. This question of diet is more perplexing in artificially fed children, although very rarely we shall find a case where the breast milk will prove indigestible and has to be discontinued, notwithstanding our attempts at its modification through diet, exercise, and other hygienic measures with the mother. However, we should be extremely wary before advising a discontinuance of nursing for bottle feeding, a combination of both being in some cases efficient and preferable to the total exclusion of the breast milk.

Cow's milk should be properly modified according to the age of the child, and in summer it is an excellent rule to decrease the total quantity of solids as compared with the winter feeding, so as to throw less work on the digestive organs, generally weakened by the depressing influence of heat. Feedings should be regular, and not oftener than every two or three hours, according to age. The quantity should also be adapted to the age, overfeeding being scrupulously avoided. Avoidance of nursing at night should be instituted at the third or fourth month, to insure rest for the mother, that her health and milk supply be not impaired, and rest to the digestive organs of the child, that their function be not overtaxed. Sudden emotions, shock and excitement of any kind, should be avoided by the nursing mother, as these are known to influence the secretion and constituents of milk in such a manner as to disturb the digestion of the child.

In table-fed children, all irritant foods, such as unripe fruits, coarse vegetables, articles of diet exposed to dust, etc., must be avoided, a plain, wholesome, and nutritious diet being insisted upon.

The hygienic care of the child should be such that its resistive vitality will be kept to the highest pitch of efficiency. For this end an abundant supply of fresh air, plenty of sleep, and a cool, clean skin are essential conditions. Not only should the child be bathed every morning, but during the warm summer days two or three baths are necessary. The clothing should be adapted to the season also.

In the treatment proper, "Stop the beginnings" is the golden rule which should always be borne in mind and impressed upon mothers. The old idea that teething is generally accompanied by a diarrhœa, which should not be interfered with, is so deeply rooted in the minds of the laity and, I am sorry to say, of some physicians, that this rule cannot be too often preached. I never tire of telling mothers of the necessity of arresting this diarrhœa *in the beginning*, before serious damage is done, and I may say that if proper treatment is instituted at its incipency, recovery will be rapid, and long, tedious, complicated cases will be the exception. On first seeing the patient, all milk should be stopped at once, particularly if the child is artificially fed. Knowing that diarrhœa is due to bacterial infection and that milk is one of the best culture mediums, it is evident that the sooner we stop the ingestion of the culture medium the less will bacteria multiply. This will seem a harsh rule to most mothers, but it must be insisted upon. In the breast fed this rule holds good also. The fear of starvation need not deter us from our position. With boiled water *ad libitum*, a child can live five or six days comfortably. Should it be necessary to withhold milk that long or longer, cereal waters, such as barley or rice water, are good substitutes, especially as these are supposed to prevent the multiplication of bacteria in the intestines by setting up an acid fermentation, acidity of the intestinal contents being unfavorable for their growth. Barley or rice water may be prepared by boiling two tablespoonfuls of barley or rice in a pint of water, adding water as it is evaporated to make a pint at the end of the cooking process. Thorough cooking must be insisted upon. Meat broths in small quantities, say one teaspoonful to four ounces of cereal water, make a good occasional change. Albumen water, made by beating the white of an egg in half pint of water, is not so good, as it is more difficult of digestion and may pass unchanged into the intestines, where it may be a good culture medium. It should be avoided in cases of excessively foul smelling stools, as these are supposed to indicate albuminous decomposition. Alcoholics should as a rule be avoided, but when there is much prostration indicating stimulation, small amounts, well diluted and administered ice cold, may be allowed every four or five hours.

As to how long we shall withhold milk, that is a matter which must be left to the judgment of the physician, in the determination of which not time, but tongue, temperature, and the character of the stools must guide him. Suffice it to say that it should not be given before the temperature is normal and the stools are nearly so. When determined upon, cow's milk in half ounce quantities may be added to the cereal water, gradually in-

creasing it if it agrees well. It is almost superfluous to state that in table fed children all table diet must be prohibited.

As to medicinal treatment, of late years we attach less and less importance to drugs, and restrict ourselves to very few of them. Thorough emptying of the intestinal canal of all pathogenic bacteria, pabulum, and irritants is the first indication. For this purpose as soon as the child comes under observation, and milk has been prohibited, the following is ordered:

℞ Calomel	} each.....1 to 3 grains;
Sodium bicarbonate	
Sugar of milk.....	.....6 grains

Mix and divide into twelve powders; one every hour for a child one to five years old.

This is followed in three or four hours by one or two teaspoonfuls of castor oil. This purges the child pretty freely, and relieves the straining and tenesmus. Besides, calomel empties the liver of all bile, which has antiseptic properties, into the intestines. Should infection seem profound and quick elimination be desired, the quantity of calomel may be administered in larger doses and at more frequent intervals.

In most cases seen sufficiently rarely, it will not be necessary to give anything else, for most of the poison is removed before any material damage is done, and that which may remain, having no pabulum to sustain it, milk being eliminated from the diet, is soon overpowered by the resistive vitality of the child. However, should the stools continue to be frequent, bismuth subnitrate, in ten grain doses every hour or two, is the only drug we may place reliance on. It must be given in large doses, sufficiently so to render the stools black, some of it being converted into the sulphide of bismuth. It is even asserted that if no such change occurs it is not doing any good.

Pain, tenesmus, and frequent stools, occasioning progressive weakness and exhaustion, call for the use of opium. We must, however, be careful with it, not forgetting that the intestinal tract is infected and requires drainage, five or six stools a day being necessary. Consequently, to reduce the number of stools below that by opium is doing our patient harm.

Irrigation of the colon, popular at one time, is indicated when the disease is in the lower bowel or when rapid elimination of the poison is necessary. In that case it may be practised at the same time that the calomel is administered. Normal saline is the preferable solution.

Vomiting is occasionally a distressing symptom. The small doses of calomel will very often act as a sedative, but sometimes will fail to relieve

it. In these cases very small doses of carbolic acid act well; viz.:

R Carbolic acid.....I drop;
Water.....I drachm;
Glycerin, enough to make.....I fluid ounce.

Sig. Five to ten drops every hour.

In persistent cases, or in profound infection, gastric lavage is indicated.

For high temperature, baths at 90° F., gradually reduced to 80°, are indicated. Drug antipyretics should be avoided. Besides reducing the temperature, baths keep the skin clean and active and are soothing to the nervous system, relieving restlessness and insomnia. These baths may be repeated as often as necessary. High temperature, however, indicates absorption of poison, and this may call more for elimination than for antipyretic measures. Should the stools be infrequent and foul smelling, calomel may again be indicated.

In conclusion, I would beg to insist again upon the absolute necessity of restricting milk and irritant foods and rapid cleansing of the whole alimentary canal before serious damage is done. If this practice is instituted early, long, tedious, and complicated cases with undesirable sequelæ will be a rarity.

Dr. John Gilbert, of York, Pa., writes:

This disease being preventable, prophylaxis becomes an element of the greatest importance. Special attention should therefore be paid to the sanitary surroundings of the child, fresh air and cleanliness being a prime necessity. Frequent bathing of the mother and child is imperative, and especially important is ablution of the nipples of mother and the mouth of child prior to and immediately after nursing. Nothing better answers the purpose than a saturated solution of boric acid containing a small amount of glycerin. All drinking water should be thoroughly sterilized and placed in cooling bottles of simple design, thereby permitting easy and perfect cleansing; and no ice should be permitted to come in contact with the contents.

The same care as to simplicity and cleanliness of containers should be observed in bottle fed children, and when artificial foods are employed they should be prepared in quantities as needed and only with water that has been previously sterilized.

Food should be given only at regular intervals and in suitable quantities. Frequent regurgitation of contents of the stomach is often evidence that the amount given is excessive or the interval between feeding insufficient. Night feeding

should not be encouraged, and to prevent this, thereby permitting physiological rest to the stomach, the child should be accustomed to sleeping apart from the mother, receiving its last nursing at a stated hour at night and resuming its daily nourishment as regularly in the morning. Experience alone will indicate the proper time for individual cases. Two things should be borne in mind: when a child cries it is not necessarily from hunger, and there is infinitely more danger to be apprehended from overfeeding than from the administration of an insufficient quantity.

Early in the disease lavage has a beneficent effect on the vomiting, should such symptom be annoying; it also removes irritating material from the stomach. Copious rectal injections of cool 7 to 1,000 salt solution get rid of large amounts of fermenting material, thereby assisting the action of the calomel, $\frac{1}{10}$ of a grain of which is administered every twenty minutes until a grain has been taken. This should be combined with sodium bicarbonate, thereby tending to restore the normal alkalinity of the intestine. Some prefer to give castor oil, by reason of its constipating after-effect, and it is very well combined with a drop of paregoric, which not only assists this therapeutic action, but also prevents griping.

Temperature is best reduced by an ice cap to the head and by sponging. The enema also by removing from the lower bowel large amounts of the fever producing material, no less than by the coolness of the water, largely contributes to this result. Thirst is relieved by pieces of cracked ice, over which has been poured a small quantity of brandy, the latter stimulating and supporting the vital process.

Pain yields to small doses of spirit of camphor internally, with a large spice poultice to the abdomen and epigastrium as an adjuvant. Bismuth may also be given in large quantities, as much as sixty grains in the twenty-four hours to a child one year of age. Where the suffering is severe, this may be reinforced by small doses of paregoric. The latter should be ordered on a separate prescription.

Owing to the extreme weakness of the patient, together with the intensely inflamed condition of the intestinal tract, it is necessary to exercise extreme care in handling the child, who should be moved only on a pillow or in a coach. For these reasons the enema should be given while the child lies on its abdomen across the nurse's lap; this supports the intestines and affords the most convenient position for the introduction of the soft catheter, which should be inserted six or eight inches into the bowel. The salt solution should be allowed to enter until it returns perfectly clear,

when it should be followed by six ounces of tannic acid solution, 15 grains to the ounce, or by one ounce of silver nitrate solution, $\frac{1}{2}$ to 1 grain to the ounce. The latter must immediately be followed by salt solution to neutralize any excess of silver. Either of these procedures should be repeated daily after washing the bowel. Talcum powder has a soothing effect upon the excoriations about the anus and thighs, and adds much to the comfort of the patient. An occasional ice suppository tends to relieve the proctitis.

When the purging has been so severe as to seriously deplete the system of its fluids, hypodermoclysis of salt solution may be necessary.

All food should be interdicted for the first twelve hours of the disease. After that beef broths, beef extract, beef juice, or egg albumen may be given in amounts of from $\frac{1}{2}$ to 1 drachm every three hours, and milk should not be taken for seventy-two hours. Small doses of hydrochloric acid do good at this period. In older children, a milk diet should be persisted in for a week or ten days, when a gradual return to table food may be allowed.

All diapers and soiled clothing of the patient should be immersed for twelve hours in a solution of carbolic acid 1 to 40, or other disinfectant. Particular attention should be paid to the hands of the nurse.

The value of fresh air cannot be too strongly insisted upon in these cases, and where the country or seashore is not accessible, the public parks contiguous to our great cities afford a partial substitute for those unable to take advantage of the former. Tonics are necessary to fully restore the patient, and some form of iron should be selected.

Dr. George S. Eveleth, of Little Falls, N. Y., writes:

When called to see a case of summer diarrhoea early, if the stools are green and show evidences of undigested food, it is well to rid the stomach and bowels of their irritating contents by a purgative dose of castor oil, one or two drachms, or calomel, one or two grains, thus freeing the system of the fermenting and decomposing ingesta, together with the pathogenic bacteria which infest the canal and the poisons generated by their growth.

Summer diarrhoea is distinctively a town disease, and as infected food, the heat of summer, overcrowding, foul air laden with dust and disease germs, and uncleanly surroundings are the chief causative factors, we should have the patient removed, if possible, to the country, preferably to the seashore or mountains. It is, however, in the

great majority of cases, impossible to have this prescription filled, and we have to battle with the disease on its own and favorite stamping ground. We can, nevertheless, have the child removed to the coolest room in the house and have the doors and windows kept open. It is well oftentimes, if there are no contraindications, to take the patient out of doors for a little while in the cool of the evening or in the daytime, if a quiet, shady, dust free, place is available.

The cot or bed on which the patient is to lie should be furnished with a moderately hard mattress, or if the baby carriage is used for a bed, its usual soft feather pillows should be replaced by harder ones. The mother or nurse should be directed not to hold the patient more than necessary. Bowel discharges should be immediately disinfected and disposed of, and the diapers should be removed as soon as they become soiled, and kept in an antiseptic solution, until they are washed and boiled.

Food of all kinds, including milk, should be immediately stopped and withheld for from eighteen to twenty-four hours. Nothing should be given but plenty of sterile water, with a little whiskey or brandy, if indicated. If, at the end of twenty-four hours, vomiting has ceased, a little barley water may be given; if this is retained, egg albumen may be added to it. Later on, an ounce or two of chicken or mutton broth, minus the fat, may be added to the barley water. The monotony of this diet may be varied, if everything goes well, by some of the soluble proprietary foods not requiring milk. They should not be given oftener than every four hours, and the amount should be regulated according to the age and condition of the patient.

After a complete cleansing of the whole length of the digestive tube, by the initial purgative dose of castor oil or calomel, this condition of cleanliness should be maintained in the small intestines, by another grain of calomel, given in divided doses, $\frac{1}{10}$ of a grain every hour, or if the case is very active, the dose should be $\frac{1}{20}$; and the lower bowel should be cleansed by irrigation twice a day with a one per cent. solution of boric acid or a normal salt solution. If the stools are infrequent and foul, the irrigation may be employed three times a day; more than this is meddlesome.

The drugs next in usefulness to castor oil and calomel are the subnitrate of bismuth and opium. Bismuth, being almost wholly insoluble, acts on the whole length of the intestinal canal. It neutralizes the superacidity of the stomach and relieves the vomiting. It is a mild antiseptic and has an astringent and sedative action on the

mucous membrane. It checks the diarrhoea and lessens in some degree the pain.

The dose of bismuth usually given is not large enough to accomplish the best results. Its action is largely mechanical and it affects the inflamed mucous membrane by direct contact. One or two grains are not enough, from seven to fifteen grains should be the dose, given directly after feeding, every four hours, or if there is need, as indicated by the frequency of the stools or vomiting, it may be given every two hours.

The objections to the use of opium in diarrhoeal diseases has no clinical foundation, though like all other medicines its administration should be regulated by its effects. When needed, there is nothing that will do so much good, and Dover's powder is the best form in which to administer it. It may be given in doses from $\frac{1}{10}$ to $\frac{1}{3}$ of a grain every two to four hours, combined with the bismuth. It diminishes the hyperperistalsis, lessens the oversecretion, relieves the griping pains, and brings to the exhausted little sufferer refreshing rest.

Excessive temperature should be reduced by frequent bathing with tepid water or water and alcohol (water 5 parts, alcohol 1 part), or full baths in tepid water, or cloths wrung out of water at 70° may be placed over the abdomen. These should be covered with oiled silk and changed when warm.

In threatened collapse, an injection of hot water 104°-108°, to which one or two drachms of whiskey has been added, will restore the circulation. Part of the water is absorbed into the blood vessels, and in bad cases, where the cerebral symptoms are marked, intracranial lesions may be prevented. Hot applications should be made to the extremities, if they are cold.

After the disease is under control, the care in diet must not be relaxed; any error of the kind may bring about a relapse. Beef juice, beef extracts, toast and zwieback, eggs, custard, peptonized and sterilized milk may be carefully added to the diet.

These attacks of summer diarrhoea leave the digestive powers greatly weakened, and nuxvomica before and essence of pepsin after feeding are often of service. If iron is indicated, the syrup of the iodide is a valuable preparation. It is well to have the patient wear a flannel binder to protect the abdominal contents from the great changes in temperature between midday and evening. Convalescence is often slow and health is sometimes not regained until the cool weather of autumn has come. The child should not be regarded as restored to health until it has regained its normal weight.

Therapeutical Notes.

An "Elastic Boot" for the Treatment of Varicose Ulcers.—Le Roy, of Havre, according to *Journal de médecine de Paris*, for July 19th, has devised an ambulatory treatment for varicose ulcers, the details of which follow. First, seven muslin bandages, 5 metres in length, by 7 centimetres in breadth, and slightly starched, are immersed for half an hour in a 2 per cent. hot solution of formol. They are afterwards wrung dry, and then dipped in this solution:

- R Boiled water.....180 grammes (6 ounces);
- Glycerin100 grammes ($3\frac{1}{2}$ ounces);
- White gelatin..... 50 grammes (1 $\frac{1}{2}$ ounces);
- Zinc oxide..... 40 grammes (1 $\frac{1}{2}$ ounces).

M. For preparing bandages.

This mixture should semiliquefied in a water bath. The patient lying down, the affected leg is thoroughly cleansed and the ulcer washed with formol solution; the leg is then forcibly dried with sterilized compresses. The prepared bandages are then applied from the toes to the knee. At the end of half an hour, the dressing is dry and has formed a real elastic boot, supple, and supplying uniform compression without the slightest pain. If the ulcer be very large, the boot may be renewed every five days; otherwise, once a week is often enough. A cure is obtained in from one week to two months, the scar being thick, supple, and tough. Walking in moderation is advised to promote circulation. The boot prevents infection, and suppresses pain, itching, and scratching, while the patient may walk and attend to his work.

An Antiseptic Mouthwash.—*Presse médicale* for August 1st, recommends the following:

- R Alcoholate of horseradish } of each.....50 grammes
- Alcoholate of cinchona } (12 $\frac{1}{2}$ drachms);
- Salol2 grammes (30 grains);
- Tincture of guaiac.....10 grammes (150 grains);
- Mint alcohol.....20 grammes (300 grains).

M. A half teaspoonful in a half glass of tepid water.

Naphthol in Surgery.—Poirson (*Journal de médecine de Paris*, for July 19th) recommends as a protective and an antiseptic application:

- R Naphthol B.....75 centigrammes (11 $\frac{1}{4}$ grains);
- Camphorated alcohol.....1 gramme (15 minims);
- Flexible collodion.....10 grammes (2 $\frac{1}{2}$ drachms).

M. Shake well.

The above is useful in erysipelas and in the pitting of smallpox.

Iodotannic Wine.—For a wine of which 5 drachms contain three two hundredths of a grain of iodine, combined with the tannin from green tea, *Revue française de médecine et de chirurgie*, for August 3rd, gives the following formula:

- R Green tea.....10 grammes (2 $\frac{1}{2}$ drachms);
- Boiling water.....100 grammes ($3\frac{1}{3}$ ounces);
- Lemon2 grammes (30 grains);
- Alcohol, 90°.....24 grammes (6 drachms);
- Sugar100 grammes ($3\frac{1}{3}$ ounces);
- Brown malaga wine...800 grammes (26 $\frac{2}{3}$ ounces).

M. Dose, as required.

Infuse the tea twelve hours. Filter under pressure to obtain 20 drachms, to which add the iodine, dissolved in the alcohol. Heat slightly, add the sugar, and when the syrup weighs 6 ounces, add the wine. Let stand a few days, then filter.

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Editor. Associate Editor.

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NEW YORK, SATURDAY, AUGUST 29, 1903.

GENERAL LEONARD WOOD'S ADVANCEMENT.

We are not of those who would ignore seniority in the promotion of officers of the army or of the navy. On the contrary, we think that as a rule seniority should be the ground of advancement in rank. Nevertheless, it seems to us that conspicuous merit in achievement ought to count for more than mere length of service. It is on that account that we have no sympathy with those who would place obstacles in the way of General Wood's advancement. Possibly the fact that General Wood was originally a medical officer is to some extent conducive to our advocacy of his promotion in the line, but we think we can conscientiously say that we are not allowing that fact to outweigh general considerations for the good of the service.

We regret to observe that some of the newspapers are disposed to obstruct General Wood's promotion, and that they are trying to work up popular opposition to it by representing his advancement up to the present time as having been due to the influence of his personal friends. So far as we have noticed, they do not impugn the efficiency of his service as an officer of the medical corps, but they do affect ignorance of his skill and valor as an Indian fighter—precisely the qualities in General Miles for which they rightly resent the cold attitude of the Government toward Miles—and they entirely lose sight of the administrative ability that he has shown since the close of the war with Spain. It is not often perhaps that executive capacity is coupled with profes-

sional skill in medicine, but it certainly seems to be so associated in General Wood.

Observation teaches us that conspicuous capability as a medical officer is not too highly thought of in the War Department, but we still decline to believe that that department will long shut its eyes to the extraprofessional capabilities of General Wood. Every medical man who shares our conviction—and we imagine there are few who do not—ought to exert his personal influence, an influence that may be greater than he supposes, to stay the opposition to General Wood's advancement.

THE SOUTHWESTERN STATES AS HEALTH RESORTS.

While we doubt if Colorado can be quite equaled as a resort for consumptives, it is comforting to think that those who have reasons arising from business or domestic life for going elsewhere have numerous and extensive districts of our own country among which to choose. Well known are the Adirondacks, Minnesota, the Carolinas, Georgia, Florida, New Mexico, and Southern California; and hardly less favorably known is Texas. But we question if Louisiana and Mississippi have been accorded their correct rating.

Biloxi, to be sure, is a fashionable resort, and so, too is Pass Christian, both in the State of Mississippi; but the climatic advantages of the State of Louisiana do not seem to have been adequately appreciated. There are several localities in that State to which, it seems to us, persons in the early stages of tuberculous pulmonary disease might resort with a very well founded expectation of recovery, provided they followed the instructions of the resident physicians. We attribute only minor importance to strictly meteorological conditions; yet we do not doubt that, other things being equal, a place in which the prevailing states of the weather invite the invalid to a life in the open air, regardless of temperature, affords decided advantages to the subject of incipient tuberculous pulmonary disease. There are such places in plenty in the great State of Louisiana, places in which there is no unusual risk of malarial infection and in which yellow fever has ceased to threaten.

Many of these places are within easy reach of New Orleans, a delightful city, as nobody who

attended the recent meeting of the American Medical Association there needs to be told, and a brief visit to New Orleans now and then would go far toward counteracting a Northerner's tendency to nostalgia, a complicating element that ought never to be underrated in our management of the tuberculous invalid. Fortunate indeed are we that we have within our own borders so many resorts in which the climatic and other conditions favor recovery from tuberculous disease.

ANOTHER PESTIFEROUS RODENT—THE GOPHER.

A disease variously and unfortunately named "spotted fever," "black fever," and "blue disease" has prevailed in Bitter Root Valley, in the State of Montana, since 1873, although not every year perhaps, and apparently it has been prevalent in Idaho also, chiefly along the foothills of the Boise Mountains. In Montana the mortality has been high, but in Idaho it has been comparatively low. From the time that the Montana State Board of Health was created, in the spring of 1901, to the end of November, 1902, it has occupied itself with a systematic investigation of this disease. A noteworthy feature of the affection is the fact that it occurs only in the spring and early summer. From the time that its first appearance was noted about two hundred cases of the severe type have been reported, and the mortality has been from seventy to eighty per cent.

Many of the cases are ushered in by a short period of malaise, and this is followed by a well marked chill, which may recur with decreasing severity at irregular intervals. The outset is accompanied by severe aching in the bones and muscles, with pains in the back and joints. Bronchial cough is frequently present. The urine is scanty and high colored and sometimes contains albumin. The general aspect of the patient is that observed in typhoid fever. The petechial eruption generally shows itself between the second and the fifth days after the chill. It appears first about the wrists and ankles or on the back, and extends over the entire body, the abdomen being affected last. Occasionally there are purplish spots on the buccal mucous membrane. Ordinarily the skin is somewhat jaundiced, and so are the conjunctivæ, which are injected from the outset. In about the second week the skin gener-

ally looks glazed. Desquamation begins about in the third week, and the spots fade as the fever subsides, but may not disappear for weeks or months.

Dr. Louis B. Wilson and Dr. William M. Chowning, of Minneapolis, have taken a prominent part in the researches on which the report is founded. While they do not commit themselves to a definite ætiology, they remark that early in the investigation a hæmatozoon not previously described was found in the red blood cells of the patients, and they believe that its normal habitat is the red blood cell of the gray gopher, *Spermophilus columbianus*, and that the parasite is conveyed to man by the bite of a tick previously infected from a gopher. They say, however: "A vast amount of work yet remains to be done before the truth or falsity of this latter hypothesis can be shown." We understand that they are soon to publish a further report.

SCIENCE AND ART IN MEDICINE.

Frequently to-day those of us who have been practitioners of medicine for many years feel disheartened as we find how difficult, almost impossible, it is to keep abreast of our rapidly growing, advancing science. The ones who are still enthusiastic and industrious, it is true, by attentive and careful reading, by daily contact with the younger, earnest workers, and especially with those whose main field is laboratory research, can remain sympathetic and appreciative. But the very great majority have neither the knowledge, the skill, the training, nor generally the time to do the actual scientific work which makes them feel and know they are in this direction on a par with their pupils, their successors, the younger generation. For this reason, and yet reluctantly and with the deep sentiment that it should not be, they "take a back seat" in discussions and papers, and budding practitioners appear unduly to them, oftentimes, to fill their places.

Of course, they recognize, or desire to, the advantages of scientific research, and whenever any distinct and important discovery has been made, they wish to give full praise to the maker of it. On the other hand, they are not overenthusiastic about every new thing, and this fact proceeds from two causes essentially. First, because frequently what seems a real advance when it is proclaimed in the beginning, later has far diminished

or very little merit, and, again, because even valuable findings have their limitations, and these time and repeated experiment and trial and due consideration of divers individuals and conditions alone permit us rightly to place as to value or usefulness. It is for this reason that good, sober judgment based on extensive knowledge and experience is largely a product of time, and although young practitioners may have it occasionally in a more than ordinary degree, it is not in the nature of things what characterizes them.

I take it that in this begins, in a way, the true *art* of medicine. It is to adapt all previously acquired knowledge to the judicious guidance of the person affected with a particular ailment. In a sense there is, as it were, no such thing as a *disease* to be treated; there is a *patient* who is suffering from a disease. It is the patient, young, or old, rich or poor, phlegmatic, bilious, nervous, or sanguine, who is to be estimated, advised, prescribed for, or operated upon, who is an entity, and an entity in some particulars quite distinct from any other. Thus it is that we may and should understand that there are numerous exceptions to all rules, and this is particularly true of rules governing treatment and even dietary and care in disease. While some drugs or combinations of them act well with certain persons, and evidently promote a cure, in other persons they remain inert or are positively injurious. In like manner, foods which to many sufferers from similar diathetic or local troubles are well suited, with others are malassimilated, cause troublesome symptoms, and are evidently prejudicial. The temperature, amount of fresh air, and clothing essential to the improvement of one patient are not necessary to another one.

These truths become, as it were, an integral part of the older practitioner's convictions in regard to most subjects pertaining to his duties. Hence he can never be, at least scarcely ever, in entire sympathy of thought and action with his junior colleague, nor can the latter be so with him. Is there a practical way to correct this? I am, I regret to say, somewhat doubtful.

The young practitioner will get age, and with age more experience and sounder judgment and knowledge, and at that time his relations will be changed, because there is a younger generation

which follows him and thinks and acts just as he formerly did. Of course, to this younger generation will come what they consider new lights and new discoveries, and unless they have heard and repeated the word which I now utter, the fair balancing of things will not be. It seems to me that the medical editor of the day has a great and recurring duty to perform, viz.: to preach more respect and consideration for what has been done by a previous generation of men, and particularly by those who are getting on in years, although still in harness, rather than to sound the trumpet of fame too loudly for the young men who, while full of the new microscopy, chemistry, and bacteriology, fail to know and recognize sufficiently that medicine is an art which comes largely, very largely, from the past; that very much of what was formerly regarded as good and true is still good and still true; and that the older practitioner's advice, guidance, and knowledge are usually and intrinsically what is of greatest benefit to the patient, if he only knew, or were told. I hold what I have said to be almost equally true and important in surgery as in medicine.

BEVERLEY ROBINSON.

RUSTIC TAMPERING WITH MILK.

It is significant that the Chicago commissioner of health, Dr. Arthur R. Reynolds, says in the Health Department's *Bulletin* for the week ending August 15th, that, out of 760 samples of milk and cream analyzed in the department's laboratory during the week, 112 having been taken at the trains, before the city dealer had had an opportunity of sophisticating them, four were found below the standard for butter and forty below the standard for total solids. "These figures," says Dr. Reynolds, "are the sufficient refutation of an assertion made with increasing frequency since the enforcement of the new milk ordinance has begun to disclose the principal and primary offenders. If the State Pure Food Commission will take care of the farmers, the Bureau of Milk Inspection will continue its care of the city dealers." New Yorkers have had it well hammered into them that the average rustic who takes summer boarders thinks they know nothing about milk, and have therefore become accustomed to having set before them at summer resorts "milk" that they would not for a moment tolerate in the city; but such a showing as Dr. Reynolds presents they are hardly prepared for.

LATTER DAY RADIATION IN THE TREATMENT OF BLINDNESS.

Unless we can conceive that the optic nerve, though paralysed as regards its sensitiveness to ordinary light, may yet react to unaccustomed rays, we must reserve our estimate of recent newspaper reports to the effect that a New York child, blind since her third year as a result of cerebrospinal meningitis, has had her power of distinguishing between light and darkness restored by the conjoint display before her eyes of the Röntgen rays and the luminous emanations from radium. With our present understanding of the physiology of vision—or, for that matter, of any sensation, general or special—we can hardly admit that a totally paralysed sensory nerve can react to any sort of impression, no matter what its power or its novelty; but we are willing to learn.

THE MEMORY OF THE LATE DR. WALTER REED.

We would call the particular attention of our readers to the account, to be found elsewhere in this issue, of the meeting held recently in Bar Harbor, Maine, to take measures for insuring the perpetuation of Major Reed's memory and suitable provision for his widow and daughter. His service was simply inestimable, and we trust that the proposed fund of \$25,000 or more will speedily be raised.

POLYNEURITIS ATTRIBUTED TO A HYPNOTIC.

It is rather surprising to find five days' use of sulphonal charged with giving rise to polyneuritis, but such an occurrence is recounted by Erbslöh (*Deutsche Zeitschrift für Nervenheilkunde*, xxiii; *Berliner klinische Wochenschrift*, July 27th). The patient was a woman, forty years old, who had cancer of the cervix uteri. Paralysis of the respiratory muscles caused death.

THE "HARDENING" PROCESS.

The death blow has probably yet to be given to the pernicious theory of "hardening" children against attacks of disease by exposing them to cold. The late Professor Chandler R. Gilman, who protected his own children, was wont to say to those of his acquaintances who remarked on their weakness: "Yes, but they're with me; yours are in heaven." Hecker, of Munich (*Berliner klinische Wochenschrift*, July 13th), finds that the hardening process not only does not guard children against "taking cold," but disposes them to anæmia, nervousness, and catarrhal affections of the intestines.

News Items.

Society Meetings for the Coming Week:

TUESDAY, *September 1st*.—Buffalo Academy of Medicine (Section in Surgery); Elmira, N. Y., Academy of Medicine; Ogdensburg, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Hudson, N. J., County Medical Society (Jersey City); Androscoggin, Me., County Medical Association (Lewiston); Baltimore Academy of Medicine; Medical Society of the University of Maryland (Baltimore).

WEDNESDAY, *September 2nd*.—New York Academy of Medicine (Section in Public Health); Harlem Medical Association of the City of New York; New York Genito-urinary Society; Medical Microscopical Society of Brooklyn; Medical Society of the County of Richmond, N. Y. (New Brighton); Bridgeport, Conn., Medical Association.

THURSDAY, *September 3rd*.—New York Academy of Medicine; Brooklyn Surgical Society; Society of Physicians of the Village of Canandaigua, N. Y.; Obstetrical Society of Philadelphia; Medical Society of City Hospital Alumni, St. Louis, Mo.; Atlanta Society of Medicine.

FRIDAY, *September 4th*.—Practitioners' Society of New York (private); Clinical Society of the New York Post-Graduate Medical School and Hospital; Baltimore Clinical Society; Manhattan Clinical Society.

SATURDAY, *September 5th*.—Manhattan Medical and Surgical Society, New York (private); Miller's River, Mass., Medical Society.

NEW YORK, CITY AND STATE

New Brooklyn Hospital.—Application has been made to the State board of charities for permission to incorporate the Hospital for the Preservation of Infant Life of Brooklyn.

The Recovery of Dr. Roswell Park, of Buffalo, from his recent serious attack of erysipelas, will give pleasure to the profession at large. Dr. Park has undertaken an extensive trip through the great lakes.

Rochester's Infant Hospital.—Sixty-eight babies have been cared for during the summer at this institution, with four deaths. Each child must be cared for by a parent or guardian, as well as by the nurses, and has a separate room. There are three internes and twelve nurses constantly on duty.

Luna Park Incubators.—Health Commissioner Lederle visited the incubators at Luna Park, Coney Island, on the 23rd instant. The Commissioner stated that he had recommended that similar incubators should be placed in all the hospitals, and added that if this had been done a year ago, of the 2,008 children prematurely born since, 85 per cent. would have been saved.

Accident to a New York Physician.—Dr. J. E. Giles, of the Manhattan Eye and Ear Hospital, was recently thrown from his carriage in Goshen, Mass., receiving severe injuries to his left arm, hip, and three ribs. The doctor was accompanied by his wife and parents in law, Mr. and Mrs. Vanderbeeck. Mr. Vanderbeeck's head was slightly injured.

Rochester Almshouse Hospital.—Plans and specifications for this institution have been submitted to the commissioners of public buildings. It is to be built of brick, two stories in height, and is to furnish accommodation for 200 patients, besides attendants. The building is to be fireproof. Opposition has developed to the proposed site, to the south of the present almshouse building.

Gift to the N. Y. Eye and Ear Infirmary.—The building of this institution was given by the late William C. Schermerhorn. His three daughters have lately presented \$15,000 for the purpose of purchasing instruments, furniture, bedding, and other necessary equipment.

Water from the Mohawk River.—Complaints have been made to the State department of health that the Schenectady water company did not inform the people of that city when it was necessary to increase the water supply by taking water from the Mohawk River. Typhoid fever, it is stated, always follows this procedure. The department gave orders that in the future, citizens should be informed when the Mohawk is to be tapped, that they may take precautions as to boiling, filtering, etc.

Plans for Woman's Hospital.—Plans for the new building to be put up for the Woman's Hospital, to replace the old hospital at Lexington Avenue and Fiftieth Street, have been filed. The building will be six stories high, with basement and attic, and have façades of granite, limestone, and terra cotta. It will be 188 feet front and 40 feet deep, with two wings, each 40 feet wide and 60 feet deep. It will occupy the 110th Street front of a lot 300 feet front and 171 feet deep, between 109th and 110th Streets, 200 feet east of Amsterdam Avenue. The first floor will contain, besides the administration offices, a lecture hall and a chapel. The second floor will be a dormitory for the nurses and the third floor will contain the private wards. Each of the wings in the fourth floor will contain forty beds, and there will be ten endowed beds in the main building on this floor. The fifth floor will have a clinical ward with twenty beds, and in the basement there will be a museum. In the sixth floor and attic there will be dormitories and living quarters for the physicians and others employed by the institution. The cost of the building is estimated at \$610,000.

Pure Water for Ithaca.—The Ithaca Water Company assures the citizens of Ithaca that there is no fear of a repetition of a typhoid fever epidemic. They have begun to pump from their new filter station into the city mains. The plant is built on the mechanical or rapid system of purification. The water as soon as delivered to the receiving wells is charged with a solution of aluminum sulphate, which forms a flocculent precipitate which rapidly coagulates any organic impurities in the water, combined or suspended. The water is then passed into settling basins, where 70 per cent. of its impurities are precipitated. It then passes through six filters of 3,000,000 gallons daily capacity. At the time of the typhoid fever epidemic it was agreed that a pure water supply was absolutely necessary, and the Mayor of Ithaca appointed a Water Commission to see to it. The commission decided that the method was to sink artesian wells and draw the water from them. For the last few months several corps of well drillers have been at work in and about Ithaca, and have obtained water with indifferent success. Six months ago Cornell University lent the company \$15,000, and work has been continuous ever since.

PHILADELPHIA AND PENNSYLVANIA

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

DISEASES.	Week end'g Aug. 15.		Week end'g Aug. 22.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	16	7	20	2
Diphtheria	49	5	60	12
Scarlet fever	63	6	65	3
Typhoid fever	71	14	118	18
Consumption . . . . .	..	56	..	58
Cerebrospinal fever . . . . .	..	1	..	..

This table shows an increase of sixty-five in the total of cases of contagious diseases as compared with the preceding week.

Landscape Gardening.—The new Municipal Hospital, which is under construction in the thirty-third ward, is being closely watched by the city authorities. Last week Dr. Edward Martin, director of the department of Public Health; his assistant, George Sunderland, City Forester; John C. Lewis; Dr. Charles Penrose; and Architect Philip C. Johnson made an inspection of the grounds around the new hospital, with a view of obtaining the best plans for laying out the grounds in flower beds. No plans have yet been prepared for the landscape gardening at the new pest house, but the idea of the department of health is that the grounds shall be made as handsome as possible, and so arranged as to make the entrance to the hospital resemble a private residence.

R. B. Scott Vindicated.—Dr. R. B. Scott, Twelfth and Poplar streets, who was charged with failing to report a case of alleged smallpox to the Board of Health, was discharged at a hearing before Magistrate Cunningham on Tuesday last. Dr. Scott's attorney said after the hearing that he intended to bring action against all parties concerned in the prosecution, which he declared was unfair and uncalled for. At the hearing Dr. A. A. Cairns, acting chief of the board of health, testified he examined the body of James Hunter, colored, and diagnosed the eruption on the man's body as being due to smallpox. Dr. William L. Wardsworth, of the Coroner's office, testified that he thought after examining the body that the man died from smallpox. In rebuttal Dr. Scott testified that he had attended twenty-four cases at the patients' homes and had sent a dozen to the Municipal Hospital. He treated James Hunter, and diagnosed the case as a common skin trouble and thought that the man died from acute alcoholism and gastritis. Dr. Walter Maries, an expert in microscopical anatomy, bore out Dr. Scott's diagnosis. Dr. Scott was then discharged.

A Substitute for Radium?—Dr. W. F. Manges of Jefferson Medical College states that he is experimenting with a chemical that possesses radial activity so great that it may be used in place of radium. He said: "I am experimenting now with a chemical which, while possessing radial activity so great that it may be used in place of radium, will be so cheap that it will be within the reach of any physician for experimenting or for the treatment of diseases in which radium is suggested as a remedy." He also said: "I do not mean to say that it has the intense radial activity of radium, but its activity is so remarkable that I believe it

can be made to take the place of radium of the grade which has produced such remarkable results in the experiments carried on in Europe. But chief of all, it will cost many thousand times less than the impure radium which most of the experimenters use." Dr. Manges is in charge of the x ray work at the Jefferson Medical College, and has made a special study of its use in the cure of cancer.

A Baby Census.—A house to house canvass is being made by physicians to ascertain the number of babies under one year of age. On August 13th this canvass was begun. The physicians are attached to the Bureau of Health, and it is the intention to enumerate all classes of infants in all sections of the city. The instructions given to the physicians are that they shall make a complete medical history of all babies visited, and with this end in view card reports have been furnished to each one. The information for these records will include the nutrition afforded the baby, and also its digestion and condition generally. The number of rooms in the house where the infant lives will also be given, as well as the air space and sanitary conditions as to drainage and ventilation in the building. The doctors are also to ascertain whether the child is nursed or artificially fed. Whenever a child is found ill, the health department is to be immediately notified, and a physician will be sent to the house. All treatment and medicine will be free, and if necessary, a trained nurse will be provided without charge.

To Place the Responsibility for Impure Milk.—If all the plans mapped out by Dr. Martin go through, this city from a sanitary standpoint will be far ahead of any other in the country. The latest scheme is to have a directory of all who handle milk. The end in view is the restriction, and, if possible, the prohibition of the sale of impure milk. A card index system is being formed by the Bureau of Health, and hereafter it will require that, when cases of infantile diseases and typhoid fever affecting either children or adults are reported, there be included in the facts, transmitted for indexing and comparison, the name of the dealer supplying the milk used. "It is my opinion," said Dr. Martin, "that one quarter of the new cases of typhoid fever reported can be attributed to impure milk. We know that diseases of infants are largely attributable to impure cow's milk. In preparing a directory of milkmen, therefore, we are simply endeavoring to throw added safeguards about the city's milk supply. If we find, for instance, that of a given number of new cases of typhoid reported in a definite period 50 per cent. or some other large percentage have secured milk supplies from one dealer, then there is ground for suspicion. It will then be our object to visit the dealer in question and to find out whether he is conducting his business in a sanitary way. We shall then be in a position to suggest improvements and to compel their adoption. Similarly, if in a given neighborhood there is an unusually high percentage of cases of infant diseases and we ascertain that the children are being supplied from a certain dairy, we can proceed in-

telligently and effectively. I believe a directory such as we are preparing will be a most valuable aid to us and of great benefit to the people."

CHICAGO AND ILLINOIS

Statement of Mortality for the Week Ending August 22nd, compared with the preceding week and with the corresponding week of 1902. Death rates computed on estimated mid-year populations of 1,885,000 for 1903 and of 1,820,000 for 1902:

	Aug. 22, 1903.	Aug. 15, 1903.	Aug. 23, 1902.
Total deaths, and causes	48	48	524
Principal cause of death			
Acute intestinal diseases	104	121	140
Apoplexy	8	16	12
Bright's disease	28	27	20
Bronchitis	18	7	10
Consumption	66	57	30
Cancer	16	21	19
Cholera, typhoid	7	8	8
Diphtheria	1	4	10
Heart diseases	29	25	35
Measles	2	1	1
Nervous diseases	24	17	28
Pneumonia	25	25	22
Scarlet fever	1	2	3
Sulicide	1	6	10
Typhoid fever	1	8	33
Violence (other than sulicide)	32	40	20
Whooping cough	1	9	5

Smallpox Hospital Out of Commission.—The smallpox hospital at Libertyville, Ill., has been closed by the authorities, who have decided that the town is now quite free from the disease.

Chicago Pasteur Institute.—Ninety-two Wisconsin people were treated at this institution since January, 1902. Thirty-eight of the victims were bitten by dogs known to be rabid, and eight were bitten by other animals. Of the remaining cases, there are no reliable statistics.

New Medical School.—A number of Chicago physicians are to open a new medical school, said to be for the benefit of those who are self supporting and cannot give their entire time to study. It is to be situated in the Pharmacy College building at 465 State Street, and the nearby Samaritan Hospital is to be the clinical field. Over 287 students are said already to have enrolled.

GENERAL

Touro Infirmary, New Orleans, La., has received a gift of \$1,000 in memory of Mr. and Mrs. Abraham Schwartz, from their children.

Consumptives' Hospital in Italy.—Pietro Car-toni has given \$200,000 to found a sanatorium in the city of Rome, Italy, for the care of tuberculous patients. His two sons perished of the disease.

Gift to Columbian University.—Mrs. N. S. Lincoln, widow of the late physician, has presented the valuable medical library of the latter, numbering some 1,200 volumes, to the medical department of Columbian University.

Baltimore County Medical Association.—The regular monthly meeting of this association was held at Electric Park on the 20th instant. Resolutions were adopted to supplant the present law against nuisances by a more effective piece of legislation. Papers were read by J. E. Gichner and W. E. Watson. L. Gibbons Smart presided

Weed Destruction.—A fourth city to fall into line regarding the destruction of noxious weeds growing within the city limits, is St. Paul, Minn., where owners of affected lots have been instructed to begin a campaign of extermination.

By the Will of Dr. L. Elfreth Watkins, all of his books, maps, drawings, and manuscripts that relate to transportation, or engraving have been left to the Smithsonian Institute, of Washington, for deposit in the United States National Museum.

Canadian Medical Association.—The thirty-sixth annual meeting of this organization was held at London, Ont., August 25th to 28th. The Provincial Government helped to entertain the delegates, among whom were a large number of American physicians.

Smallpox Diminishing.—There was a drop in the number of smallpox cases for the week ending August 15th, as compared with the previous week. The energetic manner in which the Board of Health is acting in regard to this plague is beginning to bear results. The whole number of cases reported for the week was sixteen, a falling off of twenty-two. The deaths numbered seven, which was an increase of two.

The Fifth International Dermatological Medical Congress will meet in Berlin, Germany, September, 1904, from the 13th to the 17th of the month. The following subjects have been selected by the officers of the congress for discussion: The Syphilitic Affections of the Circulatory Apparatus, The Diseases of the Skin in Anomalies of Metabolism, Epitheliomas and their Treatment. James Nevins Hyde, secretary for America.

A Board of Health to Exhibit at St. Louis.—The health board of Memphis, Tenn., have resolved to have a hygiene exhibit at the exposition at St. Louis. A map of what Memphidians consider the finest system for sewers and water in America, their process of garbage collection and cremation, the splendid milk ordinance, and the pure food law and meat inspection, it is considered, will be of great interest to the world at large.

New Jersey City Hospital.—The Jersey City Board of Finance has appropriated \$200,000 to build a new city hospital on the site of the present building at Baldwin Avenue and Montgomery Street, with an additional plot on the south side. The new building will be 40 by 121 feet, and three stories high. Additional buildings will be erected for insane, alcoholic, and consumptive patients. There will also be a stable, morgue, and power house.

Statistics Concerning the Plague.—From the Public Health Reports, published on August 15th, we gather the following particulars regarding the plague. Trypanosomes were found in the blood of five rats examined in the San Francisco laboratory during the week ending August 8th, but of the total number examined, one hundred and thirty-eight, there was none showing traces of

pest. In Hongkong, there were fifty-four cases of plague, three Europeans, two Indians, twelve Portuguese, one Japanese, one Parsee, and thirty-five Chinese. From July 11th to 18th, there were twenty-seven cases of plague in Egypt, with nine deaths; in the Bombay Presidency, during the week ending July 4th, 1,773 cases, with 1,179 deaths; in Cape Colony, Africa, five cases were discovered; in Calcutta, between June 14th and 20th, thirty-one deaths occurred. Yokohama reports a threatened outbreak throttled by stringent regulations; a recent resident died of the disease in Shidzuoka Ken on the 11th instant. From Bagio, Mexico, three cases are reported, and steps have been taken against the spread of the plague; at Noguales, Arizona, three new cases have developed; in Manila, P. I., twenty cases were discovered between June 20th and July 11th, with only one recovery. Brazil reports eight deaths; Chile, thirteen cases, with five deaths; Berlin, one case, in the nurse of a case previously reported; over seventy thousand cases are reported from the whole of India; Singapore has one case.

The Late Dr. Walter Reed.—On the 15th of August a meeting was held in Bar Harbor of friends of the late Major Reed, M. D., U. S. A., to whom in a large degree is due the discovery of the mode by which yellow fever has been spread and the consequent suppression of that dire disease. Representative men were present from distant parts of the country, and letters were received from various members of committees already appointed to promote the collection of a memorial fund in grateful commemoration of Dr. Reed's services. Important suggestions were presented from President Eliot, Dr. W. W. Keen, Professor J. W. Mallet, and others. Dr. Daniel C. Gilman, chairman of a committee appointed by the American Association for the Advancement of Science, presided, and Dr. Stuart Paton acted as Secretary. Among those who took part in the conference were Dr. W. H. Welch, of Baltimore; Dr. Jane-way, of New York; Dr. Abbott, of Philadelphia; Dr. Herter, of New York; Dr. Barker, of Chicago; Dr. Sajous, of Philadelphia; Dr. Putnam, of Buffalo, and Dr. Fremont Smith, of Bar Harbor; and besides these medical gentlemen, Bishop Lawrence, of Massachusetts, and Messrs. Morris K. Jesup, President of the New York Chamber of Commerce; John S. Kennedy, President of the Presbyterian Hospital of New York, and William J. Schieffelin, of New York.

The following conclusions were reached: That an effort should be made to raise a memorial fund of \$25,000, or more, the income to be given to the widow and daughter of Dr. Reed, and after their decease the principal to be appropriated either to the promotion of researches in Dr. Reed's special field, or to the erection of a memorial in his honor at Washington.

Arrangements were made for the publication of circulars explaining this movement and asking cooperation not only from the medical profession, but from all liberally disposed individuals who appreciate the value of Dr. Reed's services to mankind.

New Private Hospital in Ohio.—The steel company of Lorain, O., has decided to open a hospital for its employees. Hardly a day passes without an accident of some kind, and over two-thirds of the inmates at present in the town hospital are employed by the steel company.

Innovation in Kentucky University.—The medical department of Kentucky University has decided to introduce what is known as the quarter system by which a student may attend the school the whole year or at any time of the year. Two terms of three months each make up a year's course, but a student may begin with any quarter, or in fact, attend all four if he wish. The authorities believe this system will be taken up by other medical schools.

Straits of Medical Department of University of California.—The college of medicine, affiliated to the university, finds that the late Toland bequest is not sufficient for its needs. A dispute has arisen between those who assert that it was understood that the medical faculty was to be supported by the university treasury like any other faculty, and those who state that when the new faculty was affiliated, it was definitely arranged it was to be self supporting. The university has decided to support the medical department for one year, and thereafter to let it take care of itself, or perish.

Thirty-fourth Annual Session of the Medical Society of Virginia will be held in the Y. M. C. A. Hall, Roanoke, Va., September 15-17, 1903. Dr. J. Newton Lewis, Chairman Local Committee of Arrangements; Dr. Chas. G. Cannaday, Chairman Committee on Exhibits; Mrs. J. Newton Lewis, Chairman Ladies' Entertainment Committee. Fellows, fraternal delegates, invited guests, etc., should register their names and Post Office addresses and the names of ladies accompanying them in the book for the purpose on the secretary's desk on entering the hall of meeting, as well as hotels or boarding houses at which they are registered. Papers will be called for in the order named: Blood Pressure, by Henry W. Cook, of Richmond, Va.; The Serum Precipitation Test for the Identification of Blood Stains, by J. W. Mallet, University Station, of Charlottesville, Va.; Some Experiments and Conclusions in Hypnotic Therapeutics, by W. H. Wallace, of Disputanta, Va.; Therapeutic Uses of the X-Ray, with Report of Cases, by Ennion G. Williams, of Richmond, Va.; Therapeutic Value of Intravenous Injections of Collargol in Septic Affections, by Hon. Fellow, Geo. Tucker Harrison, of New York; Diet and Drugs in the Treatment of Nephritis, by Wm. S. Gordon, of Richmond, Va.; An Unappreciated Source of Typhoid Infection, by Paul B. Baringer, of University Station, Charlottesville, Va.; Some Manifestations of Malarial Poisoning not Mentioned in our Text-Books, by R. Bruce James, of Danville, Va.; Hydrophobia—Report of an Interesting Case, by S. T. A. Kent, of Ingram, Va.; Neuritis, by E. M. Magruder, of University Station, Charlottesville, Va.; Psychical Side of Medicine, by Bittle C. Keister, of Roanoke, Va.; Some Thoughts on the Functions of the Nervous System, and the Import-

tance of Physiology in the Schools, by Geo. W. Drake, of Hollins, Va.; Registration of Vital Statistics, by M. D. Hoge, Jr., of Richmond, Va.; The Method of Clinical Instruction at the University of Virginia Hospital, by William G. Christian, of Charlottesville, Va.; Medical Organization, by Invited Guest, J. N. McCormack, of Bowling Green, Ky.; Report of Committee on Revision of Constitution of Medical Society of Virginia, by Chas. R. Grandy, of Norfolk, Va.; Methods to Hasten Epidermization, with Special Reference to Skin Grafting, by Stuart McGuire, of Richmond, Va.; Use of Pig-Skin Grafts in Treating Extensive Superficial Gangrene, by J. Hamilton Browning, University Station, of Charlottesville, Va.; Prevention of the Spread of Ringworm, by F. H. Beadles, of Richmond, Va.; Value of Auscultation in Diagnosing Fœtal Positions, by W. A. Plecker, of Hampton, Va.; Induction of Labor by Means of a Modified Champetier de Ribes Balloon, by Herbert Old, of Norfolk, Va.; Extra-Uterine Pregnancy, Report of Cases, by Edward McGuire, of Richmond, Va.; Extra-Uterine Pregnancy from Surgical Standpoint, with Report of a Successful Operation, by J. T. Graham, of Wytheville, Va.; Treatment of Eclampsia, Invited Guest, J. M. H. Rowland, of Baltimore, Md.; Congenital Absence of the Appendix, by John W. Dillard, of Lynchburg, Va.; Medical View of the Prevention of Appendicitis, by Alex. G. Brown, Jr., of Richmond, Va.; Remarks on Appendicitis, Hon. Fellow, Dr. Jacob Michaux, of Richmond, Va.; Colic of Appendix *versus* Right Renal Colic, by J. Allison Hodges, of Richmond, Va.; Nine Cases of Resection of the Intestines, by George Tully Vaughan, U. S. M. Hospital Service, of Washington, D. C.; Four Unusual Cases of Abscess of the Liver, Hon. Fellow, George Ben Johnston, of Richmond, Va.; Carcinoma of the Stomach, by Hugh M. Taylor, of Richmond, Va.; Perineal Prostatectomy, with Report of Cases, by J. Shelton Horsley, of Richmond, Va.; Prolapse of the Bladder, by J. Jett McCormick, of Norfolk, Va.; Ovarian Cystomata, by Chas. R. Robins, of Richmond, Va.; Hysterectomy, by Southgate Leigh, of Norfolk, Va.; Typhoid Gangrene of Lower Extremities—43 Cases—Spontaneous and Surgical Amputations. Personal Experience, Invited Guest, Benj. Merrill Ricketts, of Cincinnati, Ohio; Report of a Typical Case of Exophthalmic Goitre, by W. H. Lyne, of Richmond, Va.; Some Suggestions to the General Practitioner as to the Care of Certain Eye Cases, by James L. Kent, of Lynchburg, Va.; Remarks on Importance of Otorrhœa, by Clifton Miller, of Richmond, Va.; Retained Intubation Tubes, Report of a Case, by A. A. Cannaday, of Roanoke, Va.; Hypertrophy of the Middle Turbinate, by Clarence Porter Jones, of Newport News, Va.; The Lingual Tonsil. Its Inflammations—its Effects; its Treatment, by D. A. Kuyk, of Richmond, Va.; The Diseased Tonsil; its Treatment, by A. A. Cannaday, of Roanoke, Va. Papers, the titles of which have not been received, from: Robt. F. Williams, of Richmond, Va.; Chas. H. Frazier, Invited Guest, of Philadelphia, Pa. Banquet to the fellows and guests Thursday night.

BRITISH MEDICAL JOURNAL.

August 8, 1903.

1. The Vaccination Acts and the Prevention of Smallpox—Discussion—Section State Medicine, British Medical Association.
2. The Midwives Act of 1902, By J. WARD COUSINS.
3. The Spread of Enteric Fever and Other Forms of Illness by Sewage Polluted Shellfish, By ARTHUR NEWSHOLME.
4. River and Seashore Pollution as it Affects Shellfish, By J. T. C. NASH.
5. Summary of Proceedings of Sections at the Meeting of the British Medical Association.

3. **Enteric Fever and Shellfish.**—Newsholme, who, as health officer of Brighton for several years, has investigated the causes of cases of typhoid fever appearing in that community and elsewhere, states that in his opinion, there is no question but that many cases of typhoid fever may be traced directly to oysters which have been contaminated with sewage. He considers definite groups of cases where, at banquets, a considerable portion of those partaking of oysters developed enteric fever and others various kinds of intestinal disturbance, while those who did not eat the shellfish remained free from disease; and also sporadic cases, where the source of infection could be traced with a reasonable degree of accuracy. At Brighton these cases have ranged from 9 in 1901 to 52 in 1899.

4. **Sewage and Shellfish.**—Nash is also strongly of the opinion that shellfish lying in water polluted by sewage are a fruitful source for the development of enteric fever and diarrhoeal disorders.

THE LANCET

August 8, 1903.

1. The Causes, Prevalence and Control of Pulmonary Tuberculosis (Milroy Lecture), By H. TIMBRELL BULSTRODE.
2. The Development of Insanity in Regard to Civilization, By ROBERT JONES.
3. Pernicious Anæmia Following Parturition, By WILLIAM ELDER and EDWIN MATTHEW.
4. A Case of Septicæmia, By T. J. STRONG HEANEY.
5. Cicatricial Constriction of the Abdominal Wall and of the Left Thigh Attributed to Compression by the Umbilical Cord, By C. O. HAWTHORNE.
6. Observations on Mastication, By HARRY CAMPBELL.
7. An Analysis of the Vaccination Statistics of the Metropolitan Asylum's Board for 1901 and 1902, By J. E. SANDILANDS.
8. A Note on Colotomy and Colectomy, By T. T. PAUL.
9. Can the Respirable Products of Human Waste Hinder Development and Lower Vitality? By JOHN HARTLEY.
10. Ichthyol in the Treatment of Pulmonary Disease, By JAMES BURNETT.
1. **Pulmonary Tuberculosis.**—Bulstrode in his last lecture on this subject takes up preventive

measures, reviewing the work which has been done and is proposed in Germany, France, Sweden, Norway, and England.

He especially commends the work done in Germany in establishing a large number of private and public sanatoriums and particularly the Invalidity Insurance Act, which compels the employers and working people in all trades to contribute equal amounts towards a fund which provides treatment in sanatoriums for persons incapacitated from work by tuberculosis, and also a contribution toward the support of the family while the wage earner is in the sanatorium. Attention is called to the establishment in France of antituberculous dispensaries, where these patients may be treated and especially instructed in preventing infection. In Norway, where the death rate from pulmonary tuberculosis has shown no sign of diminution, recent vigorous and comprehensive legislation has taken place in regard to notification, disinfection and isolation, the effect of which will be interesting to note. The author also is in favor of compulsory notification of cases, the providing of facilities for bacteriological examination, the education and examination of school children, the control of expectoration and the cleansing and disinfection of infected dwellings.

2. **Insanity and Civilization.**—Jones thinks that not only has insanity increased rapidly during the last one hundred years, but that its type has changed. Formerly the most prevalent form was mania, but at the present time the melancholic type is largely observed. This increase and change of type he attributes almost entirely to the rapid advance of so-called civilization, the tremendous strain upon the physical, mental, and moral forces in the struggle for existence; the overcrowding of the cities with its unsanitary methods of living, poverty in its extremes, and the resort to artificial stimulants to keep up the flagging powers.

3. **Pernicious Anæmia.**—Elder and Matthew state as a result of their experience in Leith Hospital that anæmia following parturition is not uncommon and may be fatal as in the two cases reported, though these cases are rare and the authors believe that there is some other cause than parturition for their development. In both of these cases there was no history of hæmorrhages during pregnancy or following labor which is the usual cause of ordinary anæmia after parturition, which generally yields readily to treatment. But in both, there was evident symptoms of toxæmia as shown by rise of temperature, gastric, and intestinal disturbance, and the authors believe it possible that in these cases of pernicious anæmia either toxic products may be thrown into the blood after parturition or if the condition has existed before or during the pregnancy, it may be aggravated by the labor.

4. **Septicæmia.**—Heaney reports this case because of the unusual symptoms and the effect of the injections of antistreptococcic serum. The initial lesion was an injury to the great toe which developed a gathering beneath the nail and a

swelling in the groin. When seen the temperature was 104° F., pulse 100, and in addition to the ordinary symptoms, such as sordes, dry and furred tongue, swelling and redness of the mucous membranes, there was an herpetic eruption on various parts of the face and on the limbs an eruption which had the typical appearance of erythema nodosum. Subsequently a scarlatiniform rash appeared on the dorsum of the feet and on those parts of the legs not occupied by pustules and nodules. The fluid under the nail was turbid serum, with a single drop of pus. For four days the patient grew worse under the usual treatment and signs of endocarditis appeared. Then 10 c. c. of antistreptococcic serum were administered at 9 p. m. and by morning the temperature fell two and a half degrees. The injections were continued twice daily for three days, and then once daily for two days, when the temperature became normal. The skin lesions cleared up and the heart murmur disappeared in about two weeks.

5. Constriction by Umbilical Cord.—Hawthorne presents in this article two illustrations of a child's body showing a deep groove around the waist and another, spiral in form around the left thigh which, according to the mother and the physician present at the birth, which took place at seven months, were produced by a tightly constricting umbilical cord. The author considers this case as contributing evidence that intra-uterine amputations are always produced by external constricting bands.

7. Vaccination.—Sandilands, after a careful study of 9,659 cases of smallpox occurring in England in 1901 and 1902, has reached the conclusion that four large scars from vaccination are associated with greater protection than one small scar, and that the practice of vaccination by less than four insertions should be condemned.

8. Colotomy.—Paul states that during the past ten years the opinion of the value of colotomy in cases of non operable malignant disease of the colon has changed. Formerly the discomforts produced were such that it was reserved as a last resort to relieve most distressing symptoms. At the present time, however, with the improved technics, the mortality of the operation has been greatly reduced and the artificial anus can be so constructed that the patient can keep himself clean, and have entire control of the bowel.

Under these conditions the author advises operating early in all cases where the radical operation for removal of the growth cannot be undertaken, and also in many cases as a preliminary operation before excision.

He favors in most cases the glass tube method with immediate opening of the bowel, thus giving relief at once and considers the operation a safe one. For comfort the wound should be small and as high up in the colon as is possible, and a good spur should be formed. Where the mesentery is long and the sigmoid flexure voluminous and the patient robust, the method of Allingham should be followed. The author has found a mushroom-shaped plug with the stalk slightly

bulbous and long enough to pass through the abdominal wall the most satisfactory.

Lumbar and right iliac colotomy is not advised, and the latter should be employed only in cases of obstruction and in hope that subsequently enterectomy or short-circuiting will be possible.

Attention is called by the author to the insidious development of malignant disease of the colon, the mild character of the malignancy, and the good results which might be obtained if an early diagnosis could be made. He states that in the early stage there are no apparent symptoms and the disease may exist for several months without any evidence of its presence. Intestinal indigestion apparently produces the first symptoms with colicky pains and flatulence, irregularity of the bowels, etc. In some cases, blood and mucus in the stools have been observed, and in others, signs of more or less obstruction have brought the case to the notice of the surgeon, while in others still, the presence of a tumor has been discovered by the patients. Colectomy is advised in all cases where the growth has not involved the surrounding tissues in such a way as to make the operation too dangerous. The author does not advocate the routine practice of uniting the cut ends of the bowel after the diseased portion has been excised, but prefers bringing both ends out of the wound and subsequently uniting them. This method he considers safer and just as satisfactory in the end, the only objection being the artificial anus for a few weeks and the prolonging of the course of the case for about a month.

9. Respiratory Waste.—Hartley is of the opinion that much of the poor physical development and lowered vitality among the poor in large cities which has been attributed to poor food is due rather to the breathing of air loaded with poisonous toxines thrown off in respiration, or from sewage, and that these toxines enter the circulation directly through the lungs without any opportunity for modification by cell or germ action as in the case of the alimentary canal, and go directly to the tissues. He believes that the effect of the toxines is largely expended upon the circulation producing contraction of the arterioles and consequently diminished nutrition to the tissues and slower removal of normal waste, which has already been reinforced by foreign waste from the lungs. As a result, weakened and flabby muscles, feeble hearts, arterial degeneration, sallow skins, and inadequate kidneys are observed.

Attention is also called to the excellent soil these tissues present for the development of bacteria, and to the great improvement which always takes place when these patients are placed where they breathe pure, unvitiated air, though the other conditions of life may be unchanged.

He deprecates the fact that while great efforts have been made everywhere to prevent the adulteration of food and the contamination of the sources of water supply, comparatively little attention has been paid to providing pure air poisoned by the emanations from sewers which are ventilated into narrow streets and alleys lined with crowded tenements.

10. **Ichthyol in Pulmonary Disease.**—Burnet reports the effect of ichthyol in thirteen cases of pulmonary tuberculosis, in all of which the bacilli were found. Of the thirteen cases, eleven showed marked and distinct improvement, though the hygienic environment was not the best. Two well advanced cases failed to show any improvement.

The first effect of the drug appeared to be upon the cough and expectoration, which were less in the majority of the cases at the end of the second month. The night sweating was not influenced much until the end of the third month, and it disappeared from all the cases by the end of the fourth month. At this time also the expectoration had grown very scanty, and was easily expelled, the cough greatly benefited, and by the fifth month, there was some improvement in respiratory sounds. The gain in weight was from three to seven pounds in the six months.

The drug was administered in capsules in doses from four to twenty grains four times a day, and was generally well tolerated by the stomach producing no nausea or vomiting.

The author believes that ichthyol has no action as antiseptic or destroyer of the bacilli, but that it increases the general nutrition in a way not as yet known, and that its chief action is local as a vasoconstrictor in relieving and removing congestion and inflammation.

BERLINER KLINISCHE WOCHENSCHRIFT.

July 20, 1903.

1. Experiments on Cattle with Tubercle Bacilli from Various Sources, By H. KOSSEL.
2. Disputed Questions in Tuberculosis, By J. ORTH.
3. Epidemiological Significance of the Plague Case in Berlin, By F. PLEHN.
4. Pseudo-tubercle Bacilli in a Case of Severe Bronchiectasis, By R. MILCHNER.
5. Pathogenesis of Pertussis, By G. ARNHEIM.
6. Biliary Colic Without Gallstones, By H. KRUKENBERG.

1. **Experiments on Cattle with Tubercle Bacilli.**—Kossel finds that tubercle bacilli derived from swine or cattle when injected into cattle produce at first a local tuberculous infection followed almost always by a general tuberculosis of a miliary character. If the tubercle bacilli from severe cases of human tuberculosis, however, are injected into cattle, a local inflammation of a tuberculous character results, but there is no fever and no general infection. This would seem to substantiate Koch's dictum that there is a difference in the pathogenesis of human and bovine tuberculosis. In two cases of children who had died of tuberculosis, the bacilli derived from the mesenteric glands of one and from the peritonæum of the other, were injected into calves both of which showed generalized tuberculosis at death. It is probable that these instances represented original bovine infection in the children.

2. **Disputed Questions in Tuberculosis.**—Orth reviews the opinions of Koch and of Schütz. He insists upon a differentiation between the patho-

genesis of disease in graminivoræ and in omnivorous animals, and says that this forms one of the distinguishing elements between man and cattle as far as tuberculosis is concerned. He has proved to his own satisfaction the transmissibility of human tuberculosis to the bovidæ and is convinced, from the results of post mortem and experimental work, that tuberculosis can be transmitted from cattle to man and *vice versa*.

4. **Pseudo-Tubercle Bacilli in Bronchiectasis.**—Milchner records a case of a man fifty-two years old, who suffered from repeated hæmoptysis. He presented dullness over the lower lobe, bronchial breathing, and fine râles. In the sputum, acidophile bacilli were found, in stain and appearance exactly like tubercle bacilli. The patient was otherwise well and strong and this militated against the diagnosis of tuberculosis. Inoculations on animals proved that the condition was not tuberculous, but pseudo-tubercle bacilli were found. The patient died, and at the autopsy an extensive bronchiectasis was found but no new tuberculous focus.

6. **Biliary Colic Without Cholelithiasis.**—Krukenberg reports two cases, in which the patients were subjected to operation on account of severe biliary colic, but no gallstones were found. In both instances, the connection between the gallbladder and the liver was so loose, that the author attributes the colic to this circumstance. The attacks were probably due to a nick in the gallbladder.

July 27, 1903.

1. Value of Agglutination in the Diagnosis of Typhoid Fever, By R. STERN.
2. Experimental Albumosuria, By M. HALPERN.
3. Simple Method for Distinguishing Between Organic and Psychic Sensory and Motor Disturbances in the Fingers, By E. MÜLLER.
4. Experimental Studies on the Pathogenesis of Acute Psychoses, By H. BERGER.
5. Embryomata and Other Neoplasms, By J. BEARD.

1. **Agglutination in Typhoid Fever** (*To be continued*).—Stern says that when the serum of a patient is tested for agglutination with the culture of a determined bacterium, the question to be decided is whether the result is a direct or an indirect agglutination. It is direct when it is due to the action in the serum of the same organism; indirect when it is evoked by the action of a related organism. Rapid and decided agglutination usually speaks for a direct reaction. Stern believes that serodiagnosis cannot yet prove beyond doubt the cause of infection; but it is probable that the agglutinating microbes are causative, and especially so, if the agglutination is a strong one.

3. **Test for Sensory and Motor Disturbances.**—Müller recommends for testing the organic and psychic sensory and motor disturbances in the fingers, to have the patient place the palms of the hands together with arms flexed before the chest, to intertwine the fingers and then invert the hands. Even perfectly healthy persons are thus confused when the hands or fingers are touched. The author gives the probable reasons for explain-

ing the differences in the results obtained by this test, in organic and functional diseases.

5. On Tumors.—Beard says that all tumors except carcinoma, are embryonal in origin. He defines a tumor as a more or less reduced, more or less differentiated, sterile, metazoic organism. Its beginning lies in an aberrant primary primitive cell, and since it is under unfavorable conditions to grow in all its parts, it develops such structures for which its nucleus is best adapted, while the other parts degenerate or remain latent. Cancers bear the stamp of the preembryonal cycle of life. Beard regards the malignant degeneration of the charion as a carcinoma.

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

July 28, 1903.

1. Albuminuria in Aortic Insufficiency, By VON LEUBE.
2. Landry's Paralysis, By ROLLY.
3. Spontaneous Cure of Invagination of the Ileum after Expulsion of an Intussusception, By H. SCHRIDDE.
4. Monocular Antecedent of Binocular Vision, By O. ROSENBAACH.
5. New Bath at Bad Nauheim, By T. GRÆDEL.
6. New Operation for Fractured Patella, By A. SCHANZ.
7. Adrenalin for Intestinal Hæmorrhage in Typhoid Fever, By GRESER.
8. Theocin as a Diuretic, By K. THIENGER.
9. Therapeutic Effects of Mesotan, By A. FRANKENBURGER.
10. Toxic Effects of Aspirin, By FRANKE.
11. Origin of Intestinal Tuberculosis, By E. NEBELTHAU.

1. Albuminuria in Aortic Insufficiency.—Von Leube reports a case of albuminuria occurring in a patient with aortic insufficiency, which was present only when the patient was in the erect position. Albumin was never found in the morning on arising, but appeared at once after the patient had walked about. Leube believes that the greatly increased and long continued blood pressure accompanying the insufficiency of the aortic valves and the frequent and severe changes in the blood pressure seen in this form of heart disease, can evoke changes in the renal tissue which render the excretion of albumin likely. The changes in the kidneys are mainly in the blood vessels, and consist in a thickening of their walls and an increase of connective tissue in their vicinity.

3. Spontaneous Cure of Invagination of Ileum.—Schriddle narrates the unusual case of a woman sixty years of age, who was suddenly seized with severe abdominal colic. The accompanying symptoms led to a diagnosis of intestinal obstruction. Seventeen days later, after a severe and foul diarrhoea, a piece of ileum thirty-two cm. in length was passed by rectum. The symptoms disappeared at once, and in a week the patient was taking solid nourishment. A few months later the patient died of some pulmonary trouble and the autopsy showed a small, circular, perfectly healed scar in the wall of the ileum. There was no evidence of intestinal stenosis.

6. New Operation for Fractured Patella.—Schanz suggests that in old fractures of the patella, the sartorius muscle shall be moved from its attachments on the inner side of the thigh and be newly attached to the two separated fragments of the patella, taking the place of the quadriceps. He reports a successful case. The joint need not be opened if there is a fibrous capsule over it, and however great the diastasis between the fragments, the operation will prove successful. Moreover, the transplantation of the sartorius will add renewed strength to the quadriceps, which is always atrophied in the old cases.

WIENER KLINISCHE WOCHENSCHRIFT.

July 28, 1903.

1. Influence of Castration Upon the Blood of Female Animals, By R. BREUER and R. VON SEILLER.
2. Constant Presence in the Chorion of the Human Placenta of Previously Unknown Cells, By J. H. SCHMIDT.
3. Peculiar Serodiagnostic Phenomenon—"Anæsthesia Agglutination"—in Friedländer's Convalescent Serum, By R. SCHMIDT.
4. Enuresis Nocturna and Its Treatment with Epidural Injections, By G. KAPSAMMER.

1. Castration and Blood Findings.—Breuer and von Seiller have been experimenting to discover the influence of removal of the ovaries upon the blood. In very young animals an influence was noted, but not in older ones, but in the former the blood again reached its normal state in from four to six weeks. The blood picture was not that presented by human chlorosis. Check experiments demonstrated that the blood changes were not due to the operation or to the anæsthesia, and the authors believe that they have established the genital theory of chlorosis.

3. Serodiagnostic Phenomenon.—Schmidt reports a case of comparative rarity. The patient suffered from pneumonia with a pure infection by Friedländer's bacillus, and a positively certain specific reaction was obtained by the use of homologous serum with the homologous culture. The case was remarkable clinically by the absence of chills and of general constitutional disturbance while the local symptoms were marked. There was no herpes, icterus was present at the start, there was delayed resolution and there were peculiarities in the sputum.

4. Treatment of Nocturnal Enuresis.—Kapsammer says it is often very difficult to find the cause of an enuresis, and that the difficulties of treatment lie in the absence of direct indications. In hysterical cases, suggestion is valuable. Electricity is of doubtful usefulness. The author has been following Cathelin's suggestion of injecting a small quantity of a one half per cent. solution of cocaine epidurally, and out of thirty-seven cases, he has cured twenty-five. In eight cases, the results were almost immediate. The author suggests that possibly by the trauma of the injection upon the course of the sacral nerves, the tone of the internal sphincter is restored or strengthened. The method is entirely harmless.

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

July 23, 1903.

1. Experiments on the Bacteriological Diagnosis of Cholera and Specificity of Koch's Cholera Vibrio,
By W. KOLB, E. GOTSCHLICH, H. HETSCH, O. LENTZ, and R. OTTO.
2. Diseases of the Vascular System Presumably Dependent Upon Nervous Origin, By L. VON CRIEGERN.
3. Clinical Hæmatology, By E. BLOCH.
4. A Case of Pus Kidney, By W. ALTER.
5. Diabetes and Skin Diseases, By E. SAALEFELD.
6. Vaginal Cæsarean Section During Pregnancy for Eclampsia, By H. SAFT.

1. **Bacteriological Diagnosis of Cholera.**—Kolb and his colleagues conclude from their work that by the use of peptone water cultures (eight hours), followed by agar cultures for eight hours, agglutination in hanging drop can establish the certain diagnosis of cholera in sixteen hours. The principal condition is the use of a serum of high valence, permanent and reliable. The result of this experimental work proves also the absolute specificity of Koch's vibrio as the cause of cholera.

2. **Nervous Vascular Diseases.**—Von Criegern concludes from his studies that subcutaneous hæmorrhages, such as petechiæ, can appear segmentally like a herpes zoster. Their appearance in a disease like Raynaud's, and other irritative evidence of the vascular system, speaks for a common cause, probably a "cramp" of the arteries.

3. **Clinical Hæmatology.**—Bloch reports several cases of unusual and interesting blood findings. In two patients with ankylostoma, eosinophilia was found, but no anæmia, and in a case of purulent echinococcus infection, the same condition existed. In discussing blood diseases presenting the picture of acute endocarditis, Bloch records cases showing the importance of blood examinations, in some of which the unsuspected diagnosis of leucæmia was made. In a case of a malignant growth, the author was able to show its origin in the bone marrow by the presence of myelocytes.

5. **Diabetes and Skin Diseases.**—Saalfeld says that skin diseases other than those which appear solely in diabetes are influenced by the presence of this disease. The dermatoses which are present only with diabetes are xanthoma diabeticum, *diabète broncé*, diabetic gangrene, and papillary diabetic dermatitis. The author gives the family tree of a family in which diabetes and cancer frequently appeared.

PRESSE MEDICALE.

July 29, 1903.

1. Acholuric Icterus,
By A. GILBERT and M. HERSCHER.
2. Report of Results Obtained at the Lyonese Sanatorium, of Hauteville,
By F. DUMAREST.

1. **Acholuric Icterus.**—Gilbert and Herscher give two forms of this disease, with oliguria and

with normal diuresis, and classify icterus furthermore by the quantity of urine passed, small, normal, or superabundant. Acholuric icterus may be changed to choluric, and vice versa. For example, the icterus of pneumonia with oliguria, may change to icterus with normal diuresis, and then to an icterus with polyuria. Digitalis produces an identical effect in cardiopathy. The same thing may occur in ordinary cholæmia and in interstitial nephritis. This is not remarkable as icterus is unique, it is biliphæic, resulting from the resorption of normal biliary pigments. The authors, however, think a classification necessary, and offer one, based upon the choluria.

2. **The Hauteville Sanatorium.**—Dumarest, chief physician of this institution for the care of the tuberculous, classifies the results in 508 cases as follows: 1. Those presenting at their departure, neither subjective symptoms, bacilli in the sputum, nor auscultatory signs, 104, or 20.47 per cent. 2. Those without subjective symptoms, but with either bacilli in the sputum or traces of lesions, 115, or 22.63 per cent. 3. Those greatly improved generally and locally, 141, or 27.75 per cent. 4. Those improved generally, but with stationary objective lesions, 95, or 18.70 per cent. 5. Those slightly improved, 29, or 5.70 per cent. 6. Those unimproved or worse, 24, or 4.72 per cent. Were all excluded save the first two classes, statistics would be ideal; the results in the other classes give a false impression to the public of the great good accomplished at such sanatoriums.

August 1, 1903.

1. Leucoplasia and Cancer. Importance of Biopsy. A Reply to Professor Gaucher, By J. DARIER.
2. The Appendix and a Lumbricus, By CANTAS.
3. Intestinal Occlusion and Biliary Lithiasis, By L. WEILLER.

1. **Malignancy of Leucoplasia.**—Darier protests strongly against Gaucher's dictum that leucoplasia may become cancerous, and states that it is malignant from its incipiency. He also objects to Gaucher's views of biopsy, and states that it is the first duty of the diagnostician to obtain a specimen of the growth for histological examination. Pain is trifling, hæmorrhage slight, healing a matter of two days, and diagnosis with proper skill certain. The latter cannot be said of a clinical examination unaided. Darier has made 675 biopsies, without bad result, and in many cases, diagnosis was made sufficiently early to save the patient by surgical exeresis.

2. **A Lumbricus in the Appendix.**—Cantas speaks of the rarity of this phenomenon. His case was in the body of a young girl, who died of tuberculosis, upon which he was giving lessons in operative surgery. A lumbricus was found in the appendix, fitting it to a nicety. The appendix was not in the least inflamed, and there had been no symptoms of the presence of a foreign body during life. The tail of the worm was in the appendix, and the head projected into the cæcum some 9 centimetres. In the small intestine were two other lumbrici, also dead.

3. **Biliary Lithiasis.**—Weiller gives two cases, treated by gastric lavage and purgative enemata only. The stones were passed when it was about decided to intervene surgically. In the first case, artificial serum was also used as a restorative. The stone in this case weighed 127 grains, and in the other 456 grains! The latter was six centimetres in length by three in diameter.

REVISTA DE CIENCIAS MEDICAS DE BARCELONA.

1. Laws of Puerperal Immunity. By F. CORMINAS.
2. The Fixation Function of the Liver.

By A. PI Y. SUÑER.

1. **Puerperal Immunity.**—Corminas lays down the following two laws: (1) A puerperal woman affected with acute mammitis never dies of puerperal infection. (2) A puerperal patient affected with acute suppurative mammitis is never mortally infected with her own pus. The second law is but a consequence of the first, says the author, yet it is of great practical and theoretical importance. With every chance of the conveyance, by the woman's hands, of pus from a suppurating mammary abscess to any part of the body and to the genital region in particular, it is, according to the author, a matter of clinical observation, that under such conditions a woman never dies in the puerperium. Reinfection of the patient by the transference of mammary pus to the genital canal is very rare; and when it does occur, is never fatal. Further, febrile metritis and vaginitis accompanied by mammitis never prove fatal; and this holds good whether the mammitis is suppurative or not; whether it precedes or follows infection of the genital canal. In explanation of these facts, the author advances the hypothesis that when a mammitis precedes genital infection, the virulence of the bacteria causing it, is attenuated by the products of the glandular inflammation; so that though general infection may exist, as attested by the general symptoms, notably the fever, a fatal issue is not seen. In other words, the products elaborated in the mammary focus lend to the organism a relative immunity. When a mammitis occurs in a puerperal patient whose genital canal is already infected, the products elaborated in the mammary focus pass to the blood and in this case also bring about such a modification of the organism as to preclude the possibility of a fatal outcome to the primary infection. The immunity conferred under these different circumstances may be compared to that given by certain serums when employed as preventives (mammitis existing prior to genital infection); or in the course of a disease (mammitis following genital infection). Thus there may be, in the author's opinion, a prophylactic and a curative mammitis.

2. **Fixation Function of the Liver.**—Pi Y. Suñer describes an interesting series of experiments carried out by him for the purpose of determining the relation between what he calls the fixation function of the liver and the elimination of disintegrated blood pigment by the urine. Hæmatoporphyrin being, by laboratory methods, the most readily obtainable of the disintegration products of hæmoglobin, a solution of this substance was used for injection into the dogs experi-

mented upon. It was found that injection in a healthy dog of 20 c. c. of such a solution was not followed by the appearance in the urine of the spectroscopic image characteristic of the pigment; but following artificial suppression of the liver's function, injection of this amount of the solution gave rise to abundant elimination of hæmatoporphyrin. Surgical measures for the suppression of the hepatic function proving unsatisfactory, recourse was had to chemical means; and for this purpose, 7 to 10 centigrammes of yellow phosphorus was given daily with the animal's food for a period of fifteen days; this substance being used because of its special degenerative influence upon the liver cells. Healthy animals were first injected with the hæmatoporphyrin solution and, failing its elimination by the urine, they were then subjected to phosphorus treatment as described. Elimination of hæmatoporphyrin by the urine was the almost invariable result of injections of that substance in solution, after fifteen days' treatment with phosphorus. So close was the relation found to be between hepatic insufficiency induced by phosphorus and the elimination of hæmatoporphyrin that it could be definitely determined that the lesion of the hepatic cells was not sufficiently grave when that phenomenon was absent after fifteen days' treatment; and when the liver continued to "fix" the pigment at the end of that time, more prolonged feeding with phosphorus sufficed to induce the appearance of the pigment in the urine. The author believes that the outcome of these experiments demonstrates that when the liver fulfills its normal function, renal elimination of hæmatoporphyrin and other derivatives of hæmoglobin is very rare; that organ arresting those substances, whatever their origin, and converting them into biliary coloring matter; whereas in loss of liver function, there is an escape of the blood pigment.

POLICLINICO.

Sezione Pratica, June 27, 1903

1. Cinchonine Sulphate in Malarial Fevers, By PAGANO and GIORGI.
2. A Method of Using Definite Solutions for Romanowski's Stain.

1. **Cinchonine in Malaria.**—Pagano and Giorgi report a series of experiments which they instituted with the object of testing the efficacy of cinchonine in malarial fevers. In 1873 Dougall found that cinchonine was very efficient in malaria and that it differed from quinine only in the size of the dose to be given for the purpose of reducing the temperature and preventing the recurrence of the accesses. Similar results were obtained by Bourru in 1880. The present authors report three cases of simple tertian, three cases of double tertian, and one case of quartan. In all these cases one gramme of the remedy was perfectly well borne and proved sufficient to avert the return, if not of the following attack, of the next paroxysm. Even in the case of quartan, which is quite resistant to quinine, the effect of cinchonine was very satisfactory. The cases reported occurred in spring, and were therefore more amenable to treatment than other forms of

malaria. The authors therefore are conservative in their estimate of the value of cinchonine as compared to quinine, yet they recommend the use of the last named remedy in the forms of malaria occurring in spring, inasmuch as in their experience, cinchonine has proved very satisfactory in these cases.

2. **Romanowski's Stain.**—Zampilloni recommends a method of staining blood-smears with Romanowski's solution which involves the use of a constant proportion of the dyes. The ordinary method of employing this stain is as follows: A concentrated solution methylene blue and a one per cent. or a one-tenth per cent. solution of eosin are mixed in various proportions, and the correct amount of each is gauged approximately by a series of trials, until the proper staining is obtained. These proportions are inconstant. According to Romanowski himself the proportions of methylene blue to eosin are on the average as one to two. Other authors give different proportions. The present author adopted a method which involves the use of a constant proportion of the ingredients. This is done by dissolving an absolutely constant quantity of methylene blue in water. The exact amount of methylene blue which is soluble in the quantity of water employed is weighed, and dissolved in a portion of this amount of water, heated to about 25° C., and the remainder of the distilled water is added. The eosin is weighed by means of an accurate balance, and is placed in a graduated vessel containing a small amount of distilled water. After dissolving the eosin, the remainder of the distilled water is added to make up the measure intended, taking care not to produce any air bubbles. The solutions are not filtered, but are kept in well-stoppered bottles, protected from light, and should be renewed from time to time as they lose their staining qualities. When the stain is needed, the two solutions are mixed in the proper proportions by means of small graduated pipettes mixed carefully with a glass rod and used upon the blood-smear which is previously dried in the air and fixed with absolute alcohol for thirty minutes, taking care to avoid evaporation and exposure to light during the staining. The proportions used by the author were as follows. Two c. c. of a 0.5 per cent. solution of methylene blue and 0.78 c. c. of a one per cent. solution of eosin. The time necessary for staining was from 30 to 45 minutes. The pipette for measuring the eosin solution was graduated in one hundredths of a cubic centimetre.

ROUSSKY VRATCH

Saturday, June 7, 1903.

1. The Significance of the Nerves of Taste in Digestion.
By P. J. BORISSOFF.
2. On Parasitic Pernicious Anæmia and the So-Called
Anæmic Heart-Murmurs, By V. F. ORLOFSKY.
3. A Rare Case of Contraction After a Burn of the Stomach, Caused by Sulphuric Acid, the Organ Having
Assumed the Size of a Watch,
By A. I. BOIKOFF.

1. **Nerves of Taste in Digestion.**—Borissoff studied the rôle of the nerves of taste in the light

of Pavloff's theory of digestion, which assumes that every variety of food when taken into the stomach induces the secretion of a special set of digestive ferments which act upon the constituents of this food specifically. The present author's conclusion, based upon experiments on dogs, is that the nerves of taste regulate the varieties of specific ferments secreted further along the tract, these nerves giving reflexly a signal to the rest of the tract as to what food is being swallowed. The mucous membrane of the mouth and pharynx is endowed with the same specific irritability as that of the stomach. The researches in question were undertaken to define the influence of the bitters upon the gastric secretion, and further data will be given in a subsequent paper.

2. **Anæmic Murmurs.**—Orlofsky says that there is nothing pathognomonic about the anæmic murmurs which distinguishes them from the organic heart bruits. The most trustworthy characteristics of these murmurs are their slight tendency to transmission, their appearance during the systole as a rule over the area of the pulmonary artery, their variability and their increase in intensity in the standing posture and decrease in the recumbent position. As a rule, the general examination of the patient determines whether we have to deal with an anæmic or an organic murmur. In some cases, however, especially in those in which a functional murmur develops upon the soil of a mitral insufficiency, a correct diagnosis is connected with a great many difficulties.

3. **Contracted Stomach After Acid Burn.**—Boikoff reports the case of a man aged twenty years who had swallowed a quantity of sulphuric acid with a suicidal intent. The patient recovered from the acute effects of the poisoning, but a very marked contraction of the stomach followed the ulceration produced by the acid. The patient was unable to bear anything on his stomach, and rectal feeding was tried for a while. Finally, a laparotomy was performed. The stomach was found to have contracted to the size of an ordinary pocket watch. There were no adhesions between it and the surrounding organs, and it was perfectly movable. A fistula was at first made directly from the stomach into the abdominal wall, but as the cavity of the stomach was very small and as the entrance into the gut was almost closed, a gastroenterostomy was performed, and the patient was temporarily fed through this fistula. In spite of the operation the patient died 10 days afterward, and the autopsy showed that the œsophagus was very markedly narrowed throughout its entire extent and that the intestinal opening of the stomach produced artificially was exceedingly small. The case is interesting, owing to its rarity, but also because the conditions during the operation were such as to prevent the use of the small intestine as is customary in the anastomosis, and that it was necessary to employ the large intestine that lay immediately beneath the stomach (transverse colon) for this purpose.

MEDICAL NEWS.

August 15, 1903.

1. A Review of Some of the Recent Literature of the
Ætiology, Pathology, and Prophylaxis of Hydro-
phobia. By FIELDING LEWIS TAYLOR.
2. Hydrophobia: Symptoms and Diagnosis,
By WILLIAM BROADBENT PRITCHARD.
3. Rabies, By H. D. GILL.
4. Best Methods to Prevent Hydrophobia,
By FOLLEN CABOT.
5. Adenoids in Relation to Audition and Cerebration,
By JAMES FRANCIS McCAW.
6. Chronic Leg Ulcers, By F. WARD LANGSTROTH, JR.
7. Some Phases of Cranial Surgery,
By GILBERT GEOFFREY COTTAM.

1. **Recent Literature of Hydrophobia.**—From 10 per cent. to 20 per cent. of all persons bitten by rabid animals contract hydrophobia. Bites upon the hands and face are the most likely to be followed by the disease. The period of incubation, in man, varies from a minimum of twenty days to a maximum of probably six months. Some authors assert that the disease may develop as late as five years after the original infection. Gowers considers it certain that the disease has developed as late as eighteen months after the bite. Prophylactic inoculations, after the method of Pasteur, have apparently given good results. The Paris Institute reports, from 1886 to 1895, inclusive, 17,337 cases treated with a mortality of 83, or 0.48 per cent. Possibly some patients have perished in consequence of the inoculations, certainly many lives have been saved. Centanni and Tizzoni have prepared a serum that has given brilliant results when tried on animals. So far reports of its action on men have not been published.

2. **Hydrophobia: Symptoms and Diagnosis.**—Pritchard discusses the diagnosis of hydrophobia quite fully. The differential diagnosis lies most frequently between it and hysteria and tetanus. Tetanus is to be distinguished, from hydrophobia, by the greater prominence of trismus; by the fact that the cause is a wound other than a bite; by the absence of mental symptoms; by the absence of remissions in the convulsions; by the absence of thirst, expressions of terror, dribbling of saliva, and by the shorter period of incubation.

3. **Rabies.**—Gill describes the two forms of rabies to which dogs are subject: (a) Furious rabies. (b) Dumb rabies. The first occurs when the brain is invaded first by the poison, the second when the spinal cord is invaded first. In New York dumb rabies prevails. (a) Furious rabies is characterized by three stages: (1) melancholic period; (2) irritated period; (3) paralytic period. (b) Dumb rabies is characterized by the absence of the second period. This latter form of rabies is the most rapidly fatal, and the least dangerous kind to the community at large as animals affected by it are often very affectionate. Gill pays his compliments to the president of the New York Society for the Prevention of Cruelty to Animals, and comments, in no uncertain language, upon the way in which the business of the society is run.

4. **Prevention of Hydrophobia.**—Cabot gives the following as the best method of local treatment for wounds infected by rabid animals. If the patient can be etherized, scrub the wound with a stiff brush and tincture of green soap then with mercury bichloride 1 to 1,000. After this, fuming nitric acid should be applied by means of a pointed glass rod. If an anæsthetic cannot be used, scrub and clean as before, apply cocaine, then pure carbolic acid, then the nitric acid as before. The poison of rabies is very slowly absorbed, and experiments upon guinea pigs show that the method advised is very effective even after the lapse of twenty-four hours. At the end of two days nitric acid is still of great value.

7. **Cranial Surgery.**—Cottam asserts that localizing symptoms are so often misleading that exploratory operations must be seriously considered in obscure cases of brain injury. Such operations are to-day not nearly so formidable as they used to be and are therefore often justifiable. Asepsis must always be perfect, antisepsis is absolutely unjustifiable. Open fractures should always be considered as infected fractures and free drainage should not be interfered with by sewing up the scalp wound. Excessive zeal and too prolonged operations are to be deplored. Operations in two stages, as recommended by Horsley and Macewen, reduce the amount of shock.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

August 8, 1903.

1. The Essential Principles of Infant Feeding and the
Modern Methods of Applying Them,
By THOMAS MORGAN ROTCH.
2. Albuminuria in Diabetes Mellitus: Its Importance as a
Factor in the Causation of Diabetes Coma,
By ARTHUR R. ELLIOTT.
3. Fracture of the Upper Third of the Femur Successfully
Treated with Plaster of Paris without Extension,
By L. SEXTON.
4. Subtropical Trachoma: With Special Reference to a
New Remedy in its Treatment,
By RUFFIN A. WRIGHT.
5. Control of Suppuration in the Anterior Segment of the
Eye by the Insertion of Iodoform into the Anterior
Chamber,
By E. C. ELLETT.
6. Condition of the Endometrium in Cases of Uterine
Myomas,
By THOMAS S. CULLEN.
7. The Ill-health of Richard Wagner (*Concluded*),
By GEORGE M. GOULD.

1. **Infant Feeding.**—Rotch's paper is to be continued.

2. **Albuminuria in Diabetes Mellitus.**—Elliott draws the following conclusions: (1) Albuminuria occurs in over one third of all cases of diabetes mellitus. (2) This albuminuria is of two varieties, toxic and degenerative. (a) Toxic albuminuria is generally of acute onset, it develops late in the severe cases of diabetes, and is caused by irritation of the tubular epithelium by the acid toxins in the blood and urine. It invariably precedes and also accompanies the coma, and must be regarded as of the gravest prognostic significance. Toxic albuminuria must be regarded as

the determining cause of diabetic coma since the sugar and toxins are retained in the blood in consequence of the impermeability of the kidneys. (b) Degenerative albuminuria occurs with great frequency during the progress of mild cases of diabetes. It is due to a gradually developing nephritis causing increased function and malnutrition of the kidney substance. Such an albuminuria, while it does not indicate imminent danger, is of serious ultimate prognostic significance, since it shows the development of chronic nephritis during the course of an already serious disease. (3) A few cases of albuminuria in diabetes may be produced by venous stasis due to cardiac asthenia, and under such circumstances will be associated with other evidences of heart failure. (4) Albuminuria in diabetes is never devoid of importance. It may be of the gravest significance, and is always of sufficient importance to demand the most earnest attention.

3. Fracture of the Femur.—Sexton reports three cases of fracture of the femur treated with plaster of paris bandages and without extension. All three cases recovered perfectly, and in none of them was there any shortening. The author recommends that the plaster dressing be applied from the foot to the stomach, thus immobilizing the entire limb. The following advantages are claimed for this method of treatment: cheapness; ease of application; simplicity, only one dressing is required, and perfect union without shortening.

4. Trachoma.—Wright discusses trachoma, in a very general way, and recommends copper citrate for its treatment. He has only had seven months' experience with the drug, and does not therefore wish to be understood as putting forward too positive views. He believes he has established the following points: (1) Copper citrate does not cure trachoma more quickly than other non-operative methods. (2) It produces absorption and disappearance of granulations and hypertrophied papillæ quite as rapidly as other applications. (3) It produces less irritation in the lids; less pain and discomfort to the patient. (4) Important, and a corollary to its almost painlessness, patients will use it regularly in home treatment. The remedy is best applied in the form of a 5 per cent. to 10 per cent. ointment, of which white vaseline is the base.

5. Iodoform in Suppuration of the Eye.—Ellett reports the results of experiments he has performed on rabbits in an attempt to control suppuration in the anterior segment of the eye by the insertion of iodoform bougies into the anterior chamber. These bougies were made of gelatin and contained 50 per cent. of iodoform. The technique of the introduction of these rods into the eye present no difficulties. A peripheral incision in the cornea is made and the rod caught at one end is pushed completely into the eye, leaving no protrusion. The experiments gave the following results: (1) Iodoform used in three cases of streptococcus infection; one failure, two successes. (2) Iodoform used in two cases of staphylococcus infection; two successes. (3) One case of streptococcus infection was not treated. The author

concludes: "While the value of this procedure as a therapeutic measure does not seem brilliant, judging from the results of these experiments, we must not, in forming an opinion, lose sight of the almost hopeless nature of these cases under any other form of treatment. It appears to me to have a very distinct field of usefulness, and apparently has no possibilities of harm."

6. The Endometrium in Cases of Uterine Myomata.—Cullen says: "From an examination of a great many specimens we can lay down the general rule that where the Falloppian tubes are normal and where no sloughing submucous myoma is present, the uterine mucosa will be perfectly normal or show simple mechanical changes. The import to the surgeon is that where such favorable conditions exist he can do a myomectomy, opening, if necessary, a large part of the uterine cavity with little or no danger of infection. On the other hand, if the tubes be adherent, or a sloughing submucous myoma be present, complete removal of the uterus is indicated, the sloughing submucous nodule, of course, being removed some time prior to doing the hysterectomy."

AMERICAN MEDICINE.

August 15, 1903.

1. Rubella, By FREDERICK H. DILLINGHAM.
2. Enteroptosis: Its Aetiology, Symptomatology, Treatment, and Prognosis (*To be continued*), By THOMAS R. BROWN.
3. A New Cholera Vaccine and Its Method of Preparation, By RICHARD P. STRONG.
4. What is Epilepsy? By J. W. WHERRY.
5. Treatment of Tetanus by Means of Subcutaneous Injections of Carbolic Acid (Bacelli's Method), with a Review of Seventy-five Cases from the Literature, By DOUGLAS SYMMERS.
6. Congenital Cystic Kidney, By WALTER E. TOBIE.

1. Rubella.—Dillingham believes in scarlet fever, measles and rubella, but does not believe in the existence of "the fourth disease." The author quotes with approval this saying by Griffith: "The disease (rubella) may be divided into two types, resembling mild measles, and then resembling mild scarlet fever, and then gradations from these types to either extreme. (1) Eruption in which the spots are for most part nearly or fully the size of split peas, more or less grouped, and having greatest resemblance to measles. (2) Rash, confluent in patches, or universally; not elevated, uniform redness simulates scarlet fever. Careful investigation often reveals a few papules and general diffuse redness. It is best seen on the wrists and fingers." The author compares in detail the three diseases under discussion, and gives the chief points on which the differential diagnosis must rest. He concludes by saying that to one with large experience in contagious diseases the differential diagnosis of rubella should not usually give much difficulty. But even one with the greatest experience, although he carefully consider every factor, will occasionally fail to make the correct diagnosis in cases where measles is the confusing element.

3. Cholera Vaccine.—Strong has for some time been devoting himself to the study of a cholera vaccine. He has had to put his work aside. The results he has obtained seem to him so promising that he has published them so that others may carry the work to a successful termination. His paper will be of value, therefore, to those who are pursuing laboratory investigations.

4. Epilepsy.—Epilepsy, according to Wherry, is a condition of autointoxication, producing a vasomotor spasm and resulting in autoasphyxia, from which the convulsions follow as a physiologic sequence, just as convulsions follow every condition of sudden and complete asphyxia from whatever cause the latter may arise. The asphyxia of epilepsy is extraordinarily sudden and complete, the vasomotor spasm being so total, that the heart actually stops beating for a time. The author does not believe that real epilepsy, that is idiopathic epilepsy, bears the most distant relationship to Jacksonian, traumatic, or other so-called forms of epilepsy. The only question that, according to the author, yet remains to be solved is the cause of the vasomotor spasm. Wherry's whole paper is devoted to establishing by argument by analogy the definition of epilepsy as set forth at the beginning of this abstract.

5. The Treatment of Tetanus.—Symmers is very much in favor of the Bacelli method of treating tetanus. He asserts that the injected carbolic acid enters into direct combination with the tetanus toxine and neutralizes it. Carbolic acid is very rapidly eliminated by the system, and the injections must therefore be frequently repeated. It is extraordinary how much carbolic acid patients suffering from tetanus will stand without showing symptoms of systemic poisoning. The author concludes his paper with five suggestions for the treatment of tetanus. As they are rather long, we summarize them: (1) Suspicious wounds should not be cauterized nor enlarged. They should be well cleaned and treated with either oxygen, hydrogen dioxide, or potassium permanganate. They should be packed with moist gauze. (2) Specific medication is of two kinds. (a) Serum treatment. (b) Baccelli treatment. Both should always be used, as they do not interfere with each other's action. The best way to use antitetanic serum is to inject it into the subarachnoid space, making the necessary puncture between the second and third lumbar vertebræ. The carbolic acid injections are best given along the tracks of the great nerve trunks. Carbolic acid should also be given by the mouth and by the rectum. In every case it should be pushed to the physiological limit.

BOSTON MEDICAL AND SURGICAL JOURNAL

August 13, 1903

1. The Present Status of the Surgery of the Prostate Gland, By PAUL THORNDIKE.
2. Preliminary Report of Five Cases of Renal Decapsulation, By BAPST BLAKE.
3. Rupture of the Quadriceps Extensor Femoris Muscle, By HALBERT G. STETSON.

1. Surgery of the Prostate.—Thorndike very clearly and very briefly reviews the development

of the surgery of the prostate gland. At the present time three methods of treatment are open to the surgeon. (a) The systematic use of the catheter.—Some patients may be carried through to the ends of their lives in fairly comfortable condition by this means. However, just so soon as difficulties arise during catheter life, operative intervention must be resorted to. (b) Prostatectomy is always the operation of choice when not contraindicated. It is seldom that this operation can be restarted to, with any degree of safety, in patients that are over sixty to sixty-five years of age. As to which operation to perform, when prostatectomy has once been decided on, this may be said: at the present time the suprapubic route is the easiest for the surgeon and the safest for the patient, but it has certain disadvantages. The perineal operation, however, so soon as the technique has become more perfect, will probably be adopted as the operation of choice by most surgeons. (c) The Bottini operation should be employed whenever prostatectomy is contraindicated and radical treatment is demanded. For this operation the author believes that Young's instrument is the best one to use. The author summarizes his advice thus: (1) No prostatic should be allowed to suffer from lack of proper treatment. (2) There is still a place for the catheter. Many patients can be made comfortable and kept so by its use. (3) All patients that cannot be kept comfortable by palliative means are fit subjects for operation. Operation when indicated should not be delayed. (4) The operation of choice is always prostatectomy, but this operation can only be offered to those patients that are fair surgical risks. (5) To all other patients the Bottini operation can be fairly offered as one attended with little risk to life, a short convalescence, and a good prospect of such a degree of improvement as will at least do away with any further necessity for the systematic use of the catheter.

3. Rupture of the Quadriceps.—Stetson calls attention to the inadequate consideration of this injury in text books on surgery. One case is reported. The diagnosis should offer no difficulty if the possibility of the injury is kept in mind. There are two ways of treating the condition: the mechanical and the surgical. The general practitioner will probably obtain the best results by resorting to the mechanical method. (a) The mechanical method consists in drawing up the patella as far as possible and holding it in place by strips of adhesive plaster. The leg is then bandaged from the foot to the knee. The thigh is next tightly bandaged from above downward towards the knee. This is done in order to push down the retracted muscle to as close apposition to the patella as possible. A posterior splint completes the dressing. At the end of six weeks massage should be practised; at the end of eight weeks passive motion. Recovery will usually require from three to twelve months. (b) Surgical treatment will shorten the time required for recovery by several months. The danger to the patient is, however, greater. If the rupture is low down the knee joint may be opened during operation. With regard to operation little need be said. The essen-

tial requirement is to unite the divided muscle by suitable sutures. In experienced hands and in favorable cases operative intervention should give the largest percentage of perfect recoveries.

MEDICAL RECORD.

August 15, 1903.

1. Consideration of Mammary Cysts in the Differentiation of Breast Tumors, By ROBERT ABBE.
2. Prostatic Hypertrophy and Its Radical Cure, By WILLIAM POST HERRICK.
3. The Causation of Cancer and Its Treatment Without Operation, By ROBERT BELL.
4. Pathology and Treatment of Pneumonia, By JOHN NORTH.
5. The Principle of Life and Cognate Things, By JOS. CLEMMENTS.
6. An Unusual Case of Empyæma of the Antrum of Highmore, By SIDNEY YANKAUER.

1. **Mammary Cysts.**—Abbe asserts that mammary cysts are not infrequently mistaken for malignant neoplasms. This error in diagnosis can be easily avoided if physicians will resort to the use of the aspirating needle in all doubtful cases. In a general way it may be said that cysts are to be found in any part of the mammary gland, with a slight preponderance in the upper and outer segment of the gland. Scirrhus tumors, on the other hand, are almost universally distributed between the nipple and the axilla. It was formerly good practice to sacrifice a whole breast at operation, for cystic disease. English and French literature during the past three years is emphatically on the side of severe surgical work in these cases. The author believes radical treatment absolutely without justification. “. . . It stands proved that no case of mammary cyst capable of complete and careful aspiration should ever be subject to any further treatment. It will be cured by that method permanently.” Occasionally it may be necessary to repeat the aspiration. Practically all cases will be cured by aspiration.

2. **Prostatic Hypertrophy.**—Herrick reviews the anatomy and physiology of the prostate gland. He also considers the ætiology, pathology, and diagnosis of prostatic hypertrophy. Treatment in all its various phases is discussed, but the indications for the various methods of treatment called for by particular cases is omitted. The author asserts that the average duration of catheter life is from two to six years. Resort must, therefore, be frequently had to more effective measures. Of these there are two kinds, radical and palliative. The author considers perineal prostatectomy as the best method for obtaining a cure. The palliative operations worthy of consideration are two: Bottini's and Chetwood's. Of the two the former is to be preferred.

3. **Cancer.**—Bell does not believe that cancer is a microbic disease. The elements of cancer are present, according to the author, in every one. They are normal cells which, under the influence of perverted metabolism, undergo malignant proliferation. In the early stages cancer can be cured, and Bell asserts he has frequently cured it, by the following simple method. The patient is

put in the best possible condition by regulating the diet and attending to the general hygiene. Nitrogenous diet is cut down to a minimum and milk is substituted for meat. Thyroid extract, in five grain doses three times a day, is given in order to neutralize certain poisons that are in the circulation, and sodium salicylate, in ten to fifteen grain doses, is given three times a day in order to eliminate the saccharomycetes that are almost always present in cancerous subjects. By these means many cures will be obtained. The author gives the following summary of the predisposing causes of cancer: (1) Persistent and prolonged retention of feces containing an undue proportion of decomposing albuminous material, from which enterotoxines are derived, and by absorption conveyed to the blood. (2) The blood thus contaminated produces a depraved condition of the nervous system, thereby handicapping the functional activity of the various organs, interfering with cell metabolism, and eventually culminating in anæmia in young persons or in cachexia in the elder. (3) If the functions of the thyroid gland are at fault, these toxines, which otherwise would be neutralized, remain in a position capable of producing serious mischief. (4) If saccharomycetes are present in the blood, this toxic material is liable to undergo chemical changes, resulting in the formation of uric acid, when uricacidæmia will result. (5) The presence of these toxines in the blood, alone or combined with uric acid, exerts a pernicious influence on cellular structures, and confers upon them a predisposition to take on a malignant metamorphosis. (6) Prolonged or repeated irritation of a part is liable to arouse into malignant activity cells which would otherwise have remained dormant. (7) The vitiated condition of the blood by prostrating the physiological activity of the various organs and cellular structures and paralyzing the *vis medicatrix nature* affords every facility for the new growth to establish its identity, and increase its area at the expense of its environment.

4. **Pneumonia.**—North believes that the high death rate in pneumonia is due to a great extent to the antiphlogistic treatment so often employed. That there is such a thing as inflammation of the lungs the author admits. He denies that what is known as pneumonia is an inflammation of the lungs. It is an intoxication with the poison of the specific microorganism which grows in the air spaces of the lung in a culture medium that has been exuded by functional blood vessels. The nutritive blood vessels do not take part in the process, but continue keeping the lung tissue nourished. The author recommends the following line of treatment: (a) If the case is seen before the chill. A full dose of calomel followed by salts. Then quinine in a large dose. This treatment, according to the author, will abort many cases. (b) If the patient is seen soon after the chill, the author resorts to this treatment. Opium one grain, calomel a few small doses, and then a saline. Tincture of aconite, in drop doses, every hour is then prescribed. From the stage of engorgement and exudation up to the advent of the crisis the patient should be given, every two hours day and

night, quinine, grains two, ammonium chloride, grains three to five, and the following capsule: tincture of aconite, two drops, and svapnia, one tenth grain. The following drugs will all be found of use when indicated: alcohol, strychnine, nitroglycerin, digitalis, veratrum viride, the salicylates, creosote, etc.

6. Empyæma of the Antrum.—Yankauer's case is of interest on account of the way in which a spontaneous cure almost took place by the pus bulging the inner wall of the antrum into the nasal cavity.

MISCELLANEOUS.

Pathological Human Blood Pressure.—Norris (*American Journal of the Medical Sciences*, May, 1903) has performed a series of experiments upon blood pressure with the Riva-Rocci apparatus. Upon a healthy man he found the pressure to vary between 118 and 134, on different days. He discusses the conditions that give rise to alterations in the blood pressure, and then gives the results of his studies in various diseases. In 28 cases of typhoid fever the pressure varied from 93 to 135. In croupous pneumonia it varied between 100 and 165. In the latter case there was double mitral disease and miscarriage shortly before death. In 21 cases of chronic interstitial nephritis the pressure varied from 160 to 285. The latter patient had atheroma and hemiplegia. In chronic parenchymatous nephritis it varied between 100 and 140, indicating an enormous difference between this condition and chronic contracted kidneys. In arteriosclerosis it appears to be high, although there is evidently a misprint. In saturnism there is usually increased arterial tension, the figures in 9 cases ranging from 118 to 194. In heart disease the pressure is very variable. In 23 cases the range was from 88 (in a case of mitral stenosis) to 180 (in a case of myocarditis with nephritis). Norris concludes that daily and hourly variations are more common in heart disease than in normal persons; that in mitral insufficiency the pressure is usually normal; in mitral stenosis the pressure is a little higher than in mitral insufficiency, and in double mitral lesion it is still higher. In aortic insufficiency the diastolic pressure is low and the systolic pressure is high. In myocarditis it is high, and in cardiac dilatation it is low. No constant relation exists between the pulse rate and the blood pressure. He gives some tables indicating the great range in pressure at different periods. He also tabulates some miscellaneous cases which indicate that in catarrhal jaundice tension is low; in malaria it is not altered characteristically. In a case with Cheyne-Stokes respiration it was found that during the respirations the pressure was higher than when they were absent. In a case of aneurysm of the aorta a considerable difference was noted on the two sides, the right being the higher. The same was true of a case of right-sided hemiplegia. After aspiration of the fluid in a case of pleural effusion the pressure diminished. After aspiration of an ascitic fluid the same thing occurred. After hot-pack in nephritis the pressure was also diminished.

Volvulus.—Vaughan (*American Journal of the Medical Sciences*, May, 1903) has collected fifty-

four cases of volvulus of the small intestine, and finds that the disease is slightly more frequent in males than in females, and apparently elongation of the mesentery predisposes to it. He reports the case of a man, thirty-five years of age, who had a hernia which was reduced by taxis. He went into a state of collapse and had some of the symptoms of intestinal obstruction. At the autopsy a twist of the mesentery from right to left through an arc of 180° was found. There was no perforation but the abdomen contained some bloody fluid. The symptoms are those of acute obstruction and occasionally rectal or vaginal examination shows a boggy mass. The diagnosis becomes very difficult when volvulus complicates hernia. He mentions a case in which, during the operation for hernia, a coil of gangrenous intestine was found in the cavity, and it was necessary to resect twenty-eight inches. The patient made a good recovery. The mortality of volvulus is high, about 60 per cent. The treatment is immediate laparotomy. He concludes with a description of forty cases.

Pronation of the Foot.—Huhner (*American Journal of the Medical Sciences*, May, 1903) approves of the method of Lovett and Cotten for determining the amount of rotation of the astragalus in pronation of the foot. After treatment he believes the shoe should have a straight inner side; there should be plenty of room for spreading the toes, and the inner side of the foot should be supported. He has examined 132 white persons and found that, in males, 64 per cent. of them had unilateral or bilateral pronation; in females, 79.2 per cent. In negroes 85 per cent. suffered from pronation. This, he explains by the nature of their work. Occasionally the patients suffer severe pain.

Aneurysm of Transverse Aorta in a Girl Aged Nine Years.—Le Boutillier (*American Journal of the Medical Sciences*, May, 1903) reports the following extraordinary case. A girl nine years old had had pertussis in infancy. At six years, she had a second attack, which was very severe. At four years she had had vague pains, which were supposed to be rheumatic, and shortly afterward some cardiac disorder was recognized. At seven years she had typhoid fever, and at nine, measles. She suffered from cough, which was occasionally brassy, and slight pain in the sternum, but there was no cyanosis, oedema, dyspnoea, or palpitation of the heart. There was tracheal tug, but pulsation of the abdominal aorta was not palpable. There was dulness from the base of the sternum to either side, and a loud harsh murmur was heard loudest in the first right intercostal space close to the sternum. In addition two murmurs were heard at the apex. The article is illustrated by two excellent x ray photographs. Le Boutillier collects 17 case of aneurysm of the thoracic aorta occurring before twenty years of age. He also collects some cases of aneurysm of the abdominal aorta, and of other arteries, the total number being sixty. He finds that sex has little influence, that the condition of the heart varies, and the termination is usually sudden death.

Letters to the Editor.

THE SEASIDE FOR CONSUMPTIVES.

NEW YORK, August 4, 1903.

To the Editor,

Sir: Upon your editorial in the issue for July 18th concerning the care of consumptives, I would beg, rather with the object of starting discussion than to offer argument, to submit these questions: Why not utilize on a larger scale, the, at least in all catarrhal affections, decidedly beneficent influence of salt water air and salt water also; and could we not find in our own territory on the islands and land stretches of Jamaica and adjacent bays very suitable places for as many sanatoria as may be needed? For my own patients I decidedly prefer just slightly protected salt water to mountain districts with land fog and rains even on days when on lower levels the sky remains entirely clear.

C. AM ENDE.

SUBCONJUNCTIVAL MEDICATION.

673 VANDERBILT AVENUE,

BROOKLYN, August 3, 1903.

To the Editor,

Sir: Seeing in your issue for July 18th that Dr. Howard Morton, in his article on Subconjunctival Medication, makes special reference to the use of a salt-sugar solution in acute affections of the anterior portion of the eye, I wish to state that I first advised its use in pneumonia in 1897, in a letter to Dr. Shoemaker, published in the *Medical Bulletin* for February of the same year. Dr. Morton speaks of using the solution in pneumococcus ulceration of the cornea.

CHARLES F. A. FRANCIS.

"VALVOTOMY" FOR CONSTIPATION.

126 EAST TWENTY-NINTH STREET,

NEW YORK, August 8, 1903.

To the Editor,

Sir: I have written the following letter to Dr. Thomas Charles Martin, of Cleveland: "Dear Doctor: I read your letter in to-day's *New York Medical Journal* and *Philadelphia Medical Journal*, consolidated. May I ask a great favor? Will you kindly help me to call attention to the barbarism manifested by the use of the term valvotomy? You are certainly aware of the incorrectness of this word, but, like many others, make a concession to medical slang. Βαλβίς, -ίδος; therefore *valvidotomy*. I know your writings, and know that a remark or the adoption of the correct word by you will go a great way."

A. ROSE.

Objections to a Milk Inspection Bureau.—The proposed ordinance of the health board of Milwaukee, Wis., that a bureau of milk inspection be established, is not regarded with unanimous approval by the citizens of that town. It is thought that after the bureau is thoroughly organized competition will be stifled, and that a milk trust with enormous powers will be the principal result of the ordinance.

Book Notices.

The Errors of Accommodation and Refraction of the Eye and their Treatment. A Handbook for Students. By ERNEST CLARKE, Fellow of the Royal College of Surgeons of England; Doctor of Medicine and Bachelor of Surgery of the University of London, etc. New York: William Wood & Company, MDCCCIII. Pp. vii-225. (Price, \$1.75.)

The Refraction of the Eye and the Anomalies of the Ocular Muscles. By KENNETH CAMPBELL, M. D., Edin. F. R. C. S., Eng.; Surgeon to the Western Ophthalmic Hospital; Surgeon-oculist to His Highness, the Maharajah and Gaikwar of Baroda. New York: William Wood & Company, MDCCCIII. Pp. 1-214. (Price, \$1.75.)

The Refraction and Motility of the Eye. For Students and Practitioners. By WILLIAM NORWOOD SUTER, M. D., Assistant Surgeon, Episcopal Eye, Ear, and Throat Hospital, Washington, D. C. Illustrated with 101 Engravings in the Text and 4 Plates in Colors and Monochrome. Philadelphia and New York: Lea Brothers & Co., 1903. Pp. iii-390. (Price, \$2.00.)

These three books treat of the same subject, and are of the size which may perhaps be called popular, that is, small and seeming to promise the acquisition of much learning with little labor. Our understanding of the laws of light may not be immutable, but it has certainly not been changed during the past generation. All progress in this branch of medicine has consisted in recognition of the therapeutic value of very low degrees of refractive and muscular errors and in the invention of instruments to assist in the diagnosis of those errors. Therefore it would be natural to expect that these books would resemble each other very closely, except as regards style and manner of expression, particularly after a glance at their tables of contents. But this does not seem to be the case. The principal difference between them, aside from the different ways of saying the same thing, lies in the varying judgment of the authors as to what can best be omitted from a textbook. Hence Clarke devotes one page, Campbell four pages, and Suter eight pages to reflection of light, while Campbell gives two pages and a half, Suter four pages, and Clarke seventeen pages to convergence. Campbell does not mention the Javal-Schiötz ophthalmometer, and Suter describes the Chambers-Inskeep modification of this instrument without recommending it, but with support of the unfortunate attempt to change the commonly accepted name ophthalmometer to keratometer, while Clarke describes Kagenaar's modification and concludes his description thus: "There is only one objection to the ophthalmometer, and that is its expense. If used as a servant, and not allowed to become master, it is one of the most valuable adjuncts to the ophthalmologist's consulting room, for after some months' practice, and when all the tricks of the instrument are learnt, in about one minute the observer ascertains (1) whether astigmatism is present, (2) the amount, and (3) the direction of the axis of the

principal meridian, and, moreover, this is done with such delicacy that $\frac{1}{8}$ of a dioptré of astigmatism is revealed."

Each writer strives to carry out the remark of Professor Tait, which Mr. Campbell has adopted as the motto of his book, "True science is itself simple and should be explained in as simple and definite language as possible," but true science also demands that matters of importance should not be omitted in order to keep a book down to a required size. A thorough work to take the place of Culver's translation of Landolt, which can no longer be obtained, is much more needed than an abbreviated treatise.

Golden Rules of Refraction. By ERNEST E. MADDOX, M. D., F. R. C. S., Edin., Ophthalmic Surgeon Royal Victoria Hospital, Bournemouth, Eng., etc. Golden Rule Series. No. XII. Bristol: John Wright & Company. London: Simpkin, Marshall, Hamilton, Kent & Company, 1903. Pp. 3 to 86.

This very minute book contains many excellent and practical suggestions, some of which are seldom found in more pretentious works, and a few of which may be quoted. "Never estimate refraction, except in distant vision; accommodation is only to be investigated in near vision." "Always select the weakest concave, or the strongest convex, lens that gives best vision." "Do not waste time by putting lenses in the trial frames, until they are proved worthy of a place there, but simply hold them in front." Such concise statements of known truths fix themselves in the memory, but the usefulness of aphorisms depends much on the reader's previous knowledge. A work like this cannot take the place of a large treatise in the hands of the student, but after the treatise has been mastered, it can be used with advantage.

The Manual Treatment of the Diseases of Women. By GUSTAF NORSTRÖM, M. D., of the Faculty of Stockholm. New York and London: G. E. Stechert, 1903. Pp. 5 to 230.

There is no longer any doubt that by means of Thure Brandt's system of pelvic massage many cases of pelvic disease, more especially and emphatically parametritis, perimetritis, and metritis, are permanently relieved and very frequently entirely cured. This much by way of preface.

Dr. Norström's book gives in much detail and with many practical hints the method of Brandt, as well as his own modifications. It is above all an honest work, and narrates the unsuccessful as well as the successful attempts to cure pelvic disease by this means. It is gratifying to read how apparently intractable cases have gradually yielded to persistent and well applied massage. More than this, the book gives some details of anatomy and of clinical data which are exceedingly helpful to the novice. The lack of illustrations, otherwise a handicap, is thus in a measure atoned for.

The writer of this review has used massage persistently and conscientiously for ten years in his cases of chronic inflammation of the pelvic organs

which could thus be better treated or more properly treated than by operative means. But it is most essential to select one's cases. Fibromata, dysmenorrhæa, prolapse of the uterus and vaginal walls, and diseases of the uterine appendages—except prolapsed ovaries and ovaries and tubes bound down by old adhesions—are *not* suitable cases for massage. And it is, moreover, dangerous to teach its use in general, for an unskilled diagnostician is just as likely to practise the procedure on an acute pyosalpinx as on an old parametritis. This little excursion is made only to draw attention to the fact that massage is not an unfailing cure for all pelvic ills. It has its well defined and legitimate place in pelvic therapeutics, and no book of which we have knowledge, except Brandt's, tells more about it in an enthusiastic manner than Dr. Norström's. We can commend it heartily to those who are interested in the subject, and they should be more numerous than they now are.

The Expectant Mother. A Treatise on the Care of the Expectant Mother during Pregnancy and Childbirth and the Care of the Child from Birth until Puberty. By W. LEWIS HOWE, M. D. Philadelphia: F. A. Davis Company. Pp. v-63. (Price, \$0.50.)

This little book was evidently written for nurses and for women expecting to be confined. It is too superficial for the former purpose, and gives the expectant woman too little to complete her knowledge. The directions are safe and modern, but one is tempted to ask at each succeeding page *Cui bono?* We fail utterly to see the point of the book.

Experiments on Animals. By STEPHEN PAGET. With an Introduction by LORD LISTER. New and Revised Edition. New York: G. P. Putnam's Sons, 1903. Pp. xvi-387.

Mr. Paget's work deserves the purchase and the careful reading of every medical man who is interested in the progress of his science. While in this country we are still better situated than our English confrères in the matter of animal experimentation, this is due rather to the growing spirit in favor of scientific research than to anything the combined profession has done, with the notable exception of the honored few who have added lustre to their names in the fight of recent years.

The book covers the field of experimentation historically, beginning with the experiments in physiology and covering as well the experiments in pathology, materia medica, and therapeutics. We doubt if the greater part of the profession is sufficiently acquainted with the great advances in therapeutics which animal experimentation has brought us. As far as the infectious diseases are concerned, without the use of vivisection progress in treatment would have been entirely barred, and as for the more recent discoveries concerning the rôle of insects in the ætiology of disease, an absence or prohibition of experiments would mean the continuance of the former death rate and morbidity.

The author makes clear these and other kindred points, such as the influence of the positive results of experimentation upon mortality, upon sanitary and hygienic laws, and thus indirectly upon commercial prosperity. The book is charmingly written, and deserves all praise and encomiums. It should be as popular as Dr. Holmes's *Medical Essays*. It would be pleasant to know that Senator Gallinger had read it.

The Care of the Baby. A Manual for Mothers and Nurses, containing Practical Directions for the Management of Infancy and Childhood in Health and Disease. By J. P. CROZER GRIFFITH, M. D., Clinical Professor of Diseases of Children, University of Pennsylvania, etc. Third Edition, thoroughly Revised. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Pp. 7 to 436. (Price, \$1.50.)

At the time of publication of the first edition of this work, we took occasion to commend it highly. In its present enlarged and revised form we see no occasion for a change of opinion. Perhaps a little too much of treatment is given to the mother for her sick baby, but Dr. Griffith is especially careful to remark that the book is not intended to supplant the doctor, and that the directions are only for the mother to whom a physician is not accessible. With this exception, we can only praise the book, and we believe that it is destined to continue its evident popularity.

Transactions of the American Gynecological Society. Volume 27. For the year 1902. Philadelphia: William J. Dornan, 1902.

The greater number of the papers read at the twenty-seventh annual meeting of the American Gynecological Society has already appeared in the current medical journals. It is the reading of the discussions in a volume of this character which forms the principal interest, and in this instance the high standard of America's representative organization is fully maintained. The volume will be of interest, not only to members, but to all gynecologists.

Arteria Uterina Ovarica. The Uteroovarian Artery, or the Genital Vascular Circle. Anatomy and Physiology, with their Application in Diagnosis and Surgical Intervention. BYRON ROBINSON, B. S., M. D., Chicago, Ill. Author of *Practical Intestinal Surgery*, *Landmarks in Gynecology*, *Life-sized Chart of the Sympathetic*, *Abdominal Brain*, *Colpoperineorrhaphy* and *the Structures Involved*, *The Ureter*, *Gynecologic Charts of Genital Circulation*. Chicago: E. H. Colegrove, 1903. Pp. iii-182. (Price, \$1.00.)

This original work has appeared in part in the current weekly journals. It represents an enormous amount of research, and has a decidedly practical bearing in that it proves why it is that operations upon the central zone of the uterus are practically bloodless. As a contribution to anatomy and to the practical side of gynecology, it is a useful addition to medical literature. The illustrations would show the author's contentions to better advantage were they printed in colors.

New Inventions.

NEW TRACHOMA FORCEPS.*

By MARTIN COHEN, M. D.,

CHIEF SURGEON TO THE EYE DEPARTMENT, HARLEM HOSPITAL DISPENSARY.

In the operative treatment of trachoma, the instruments now in vogue have occasionally caused local pathological conditions that were never contemplated by the surgeon; among such sequelæ adhesions, scars, and inflammatory conditions have been the most frequent.

It has occurred to me that in many instances these lesions have been due to certain defects in the instruments employed for the conjunctival granulations.

The instrument presented here is intended to avoid the lesions above alluded to. It takes the shape of an artery forceps having a French-lock fulcrum between the blades and handles, the latter being reinforced by a removable spring. The handles are so curved as to allow for the inspection of the entire field of operation. The crushing surfaces are furnished with two horizontal grooves, and are small enough to gain easy ac-



Dr. Cohen's Trachoma Forceps.

cess into the canthi; a thumb rest on the posterior blade steadies the instrument while in use.

The method of its application is as follows: having everted the lids, the compression surfaces of the blades grasp the granulations, the operator being thus able to apply and control the requisite force.

This instrument has been in use by others as well as myself, and with gratifying results in several institutions in New York. In a number of cases of trachoma other instruments were employed on the one eye, while the instrument here presented was employed on the other. It was found upon examination twenty-four hours later, that there was less inflammatory reaction, fewer adhesions, and less marked hypertrophy of the conjunctiva, where this instrument was employed. The advantages claimed for this instrument are the following:

First—The liability of injuring the conjunctiva by removing the granulations is lessened.

Second—The operation is not followed by the unpleasant effects that attend the employment of other instruments, such as adhesions, inflammatory changes, hypertrophies and scars.

205 EAST ONE HUNDRED AND FIFTEENTH STREET.

* Presented before the Harlem Medical Association on April 1, 1903.

Miscellany.

Labor and Cæsarean Section Among Primitive Peoples.—Dr. R. Jardine (*Glasgow Medical Journal*, June) in a very interesting article, says that we are very apt to condemn off-hand, ancient customs which at first sight may seem absurd, whereas if we looked carefully into them we should probably find that at bottom there was in them a certain amount of common sense and utility. He instances the old custom of wrapping the stump of the cord in a charred linen rag—as aseptic a dressing as can be produced from an elaborate sterilizer. What is known as Credé's method of expulsion of the placenta has been practised for ages among some tribes of Indians. Among all savages woman is always treated with consideration when she is in an "interesting condition." Among the Andaman Islanders even a fat man is an object of reverent interest and attention! The influence of the moon, and the idea of menstrual uncleanness have long been part of the belief of primitive people. Abortions are almost unknown—outside of the sphere of the white man's influence. Examples of the extremely short and facile confinements among savages are numerous. Here is an account of a Cæsarean section by savages, quoted from the ninth volume of the *Edinburgh Obstetrical Transactions*: "The woman lay upon an inclined bed, the head of which was placed against the side of the hut. She was liberally supplied with banana wine, and was in a state of semi-intoxication. She was perfectly naked. A band of mbugu, or bark cloth, fastened her thorax to the bed, another band of cloth fastened down her thighs, and a man held her ankles. Another man, standing on her right side, steadied her abdomen. The operator stood, as I entered the hut, on her left side, holding his knife aloft and muttering an incantation. This being done, he washed his hands and the patient's abdomen, first with banana wine and then with water. Then, having uttered a shrill cry, which was taken up by a small crowd outside the hut, he proceeded to make a rapid cut in the middle line, commencing a little above the pubes, and ending just below the umbilicus. The whole abdominal wall and part of the uterine wall were severed by this incision, and the liquor amnii escaped; a few bleeding points in the abdominal wall were touched with a red hot iron by an assistant. The operator next rapidly finished the incision in the uterine wall; his assistant held the abdominal walls apart with both hands, and, as soon as the uterine wall was divided, he hooked it up also with two fingers. The child was next rapidly removed and given to another assistant after the cord had been cut, and then the operator, dropping his knife, seized the contracting uterus with both his hands and gave it a squeeze or two. He next put his hand into the uterine cavity through the incision, and with two or three fingers dilated the cervix from within outwards. He then cleared the uterus of clots and placenta, which had by this time become detached, removing it through the abdominal wound. His assistant endeavored, but not very

successfully, to prevent the escape of the intestines through the wound. The red hot iron was next used to check further hæmorrhage from the abdominal wound. All this time the chief 'surgeon' was keeping up firm pressure on the uterus, which he continued to do until it was firmly contracted. No sutures were put into the uterine wall. The assistant who had held the abdominal walls now slipped his hand to each extremity of the wound, and a porous grass mat was placed over the wound and secured there. Draining the fluid from the abdominal cavity, the edges of the wound, i. e., the peritonæum were brought into close opposition, seven thin iron spikes, well polished, like acupuncture needles, being used for the purpose and fastened by string made from bark. A paste prepared by chewing two different roots and spitting the pulp into a bowl, was then thickly plastered over the wound, a banana leaf warmed over the fire being placed on top of that, and, finally, a firm bandage of mbugu cloth, completed the operation. Her temperature never rose above 99.6° F., except on the second night, when it was 101° F., pulse 108. Eleven days after the operation the wound was entirely healed, and the woman seemed quite comfortable."

The Becquerel Rays and Their Significance.—London (*Berliner klinische Wochenschrift*, June 8th) brings a report of his recent investigations with the radium rays. He used thirty milligrammes of pure radium bromide enclosed in a gutta percha and metal box with a mica cover.

(1) Attention is first called to a simple experiment which depends upon the presence of a radioactive substance with the help of such a substance as is in every household. Small pieces of thin paper are required, some flannel and a piece of sealing wax. If the sealing wax is rubbed on the flannel the pieces of paper will be attracted; if previously, however, one passes the rubbed wax over the radium box the pieces of paper will not be attracted.

(2) Radium has the power of killing a nursing animal some distance away. Danysz has reported that young rats were killed when tubes containing a radium salt were placed under the skin in the region of the brain and spinal cord. The author experimented with 27 full grown mice, 6 for control and 21 for the experiment. They were well fed and kept in glass jars covered over with zinc. The radium box lay on the cover almost continuously for one to three days. The control mice were healthy and gained weight during the five days of the experiment. The experiment animals all died from the fourth to the fifth day, and they were evidently very sick on the third day. The radium box was removed as soon as bad symptoms appeared. The first symptoms were reddening of the ears and winking of the eyes; then followed drowsiness, refusal of food, relaxation of motion, feeble response to mechanical irritation. On the fourth day there was coma with paralysis of the hinder extremities. The reflexes were increased and the breathing was slow and shallow; in other words, there was a depression of function in the cerebral nerves due to the Becquerel rays. The spinal cord occasionally showed

increased excitability. The hind extremities were first paralyzed because the centres of their nerves in the brain lie uppermost and were first subjected to the Becquerel rays. The vessels of the ears were hyperæmic, on account of paralysis of the sympathetic. After four to nine hours there was paralysis of all the functions of the brain and cord and death.

(3) The investigation as to the effect of the radium rays upon the blind led to the following results: Blind persons who are slightly sensitive to light have a sensation of light as soon as the radium approaches the eyes. This applies also to blind persons whose eyes are sensitive to lightning. If the eyes are not sensitive to lightning the radium rays will produce no effect upon them.

Blind people who can perceive light and can distinguish light from shade, but cannot distinguish objects, can recognize in a dark room the shadows of objects upon a screen lighted by radium. Two blind boys, eleven and thirteen years of age, respectively, who lost their sight in the first year of life, recognized for the first time the appearance of objects to which they had been accustomed by the sense of touch, such as a key or a cross. They did not recognize a pair of eye glasses, an object which they had never learned to appreciate with their hands. The sense of relative size was not appreciated, and when two screens were illuminated the smaller one was thought to be the larger, the size being estimated by the intensity of the light. The writer thinks the blind may be taught to write and to draw by means of radium illumination in a dark room.

(4) The sensation of light may be perceived in an eye that is covered if one holds the radium bromide at a distance of 10 to 15 centimetres from the hand; but all people do not appreciate it to the same extent. This phenomenon depends upon irritation of the retina, a kind of retina fluorescence. With certain diseases of the retina one gets certain definite characteristic sensations of light. The crystalline lens diminishes the sensations of light, especially in cases of cataract.

(5) Microscopical investigations may be made in a dark room with the aid of radium. The field of view of the microscope can be illuminated by means of a good screen. If one examines radium powder strewn upon the surface under the microscope bright granules will be seen upon a dark background.

Official News.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of cases and deaths reported for the two weeks ending August 22, 1903:

	Week end'g Aug. 22.		Week end'g Aug. 15.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	117	3	125	8
Diphtheria and Croup....	296	24	295	26
Scarlet fever.....	104	4	86	2
Smallpox	0	0	0	0
.....	12	0	12	0
Tuberculosis	271	141	282	145
Typhoid fever.....	109	19	96	12
.....	0	6	0	0

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending August 22, 1903:

- ABEKEN, F. G., Assistant Surgeon. Ordered to the Naval Hospital, New York.
- BEYER, H. Y., Surgeon. Detached from the *Prairie* and ordered to duty as member of a Board on Barracks.
- BROWN, H. L., Assistant Surgeon. Detached from the Navy Yard, Washington, D. C., and ordered to the Naval Hospital, Philadelphia.
- BUCHER, W. H., Surgeon. Appointed Surgeon from June 20, 1903.
- DERR, E. Z., Medical Inspector. Detached from the *Chicago* and ordered home to wait orders.
- GRUNWELL, A. G., Surgeon. Appointed Surgeon from June 20, 1903.
- HUNTINGTON, E. O., Surgeon. When discharged from the Naval Hospital, New York, granted sick leave for three months.
- MCLEAN, A. D., Assistant Surgeon. Ordered to the *Wabash*, Boston, Mass.
- MORGAN, D. H., Passed Assistant Surgeon. Ordered before a retiring board, September 4th, at the Navy Yard, Mare Island, Cal.
- PEASE, T. N., Assistant Surgeon. Ordered to the Naval Hospital, Newport, R. I.
- RANDALL, J. A., Assistant Surgeon. Ordered to the Naval Hospital, Norfolk, Va.
- RIGGS, R. E., Assistant Surgeon. Detached from the Naval Hospital, Philadelphia, and ordered to the Navy Yard, Washington, D. C.
- STONE, M. V., Assistant Surgeon. Ordered to the Naval Hospital, New York, for treatment for a period of six months.
- THOMPSON, J. C., Passed Assistant Surgeon. Commissioned as such August 10, 1903.
- WIEBER, F. W. F., Surgeon. Ordered to the *Prairie*, August 21st.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army, for the week ending August 22, 1903:

- BRECHEMIN, LOUIS, Major and Surgeon, ordered for duty to Ord Barracks, Monterey, Cal.
- STRAUB, PAUL F., Captain and Assistant Surgeon, relieved from duty at Ord Barracks, Monterey, Cal., and ordered to Fort Leavenworth, Kan.

Marriages and Deaths.

Married.

HASKELL—O'CONNOR.—In Washington, D. C., on Wednesday, August 19th, Dr. James G. Haskell to Miss Mary Agnes O'Connor.

MARKWORTH—HUSEMEYER.—In St. Louis, Mo., on Saturday, August 8th, Dr. Herbert A. Markworth to Miss Helen Husemeyer.

MILLER—MORRIS.—In Philadelphia, Pa., on Wednesday, August 12th, Dr. Albert Griffith Miller to Miss Mabel A. Morris.

Died.

BARKER.—In Morristown, N. J., on Friday, August 21st, Dr. Phanelt Coe Barker, in the sixty-ninth year of his age.

CLARK.—In Saratoga, on Friday, August 21st, Dr. Finley Yerelean Clark, in the seventy-fifth year of his age.

FORD.—In New York City, on Saturday, August 22nd, Dr. James Curry Ford, in the sixty-ninth year of his age.

POWELL.—In Chicago, Ill., on Sunday, August 16th, Dr. F. M. Powell, in the fifty-sixth year of his age.

THOMPSON.—In Asbury Park, N. J., on Saturday, August 22nd, Dr. Allen R. Thompson, in the thirty-sixth year of his age.

SIMONS.—In Santa Cruz, Cal., on Friday, August 21st, Dr. Ollivier H. Simons, formerly of Leadville, Colo., and U. S. Consul at Hongkong, in the fifty-ninth year of his age.

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Original Communications.

THE ADAMS-STOKES SYNDROME: WITH REPORT OF A CASE.*

By PETER BASSOE, M. D.,

CHICAGO,

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[From the Presbyterian Hospital, Chicago.]

In 1827, Adams (1), of Dublin, reported the case of an officer, sixty-eight years old, whose pulse rate was about 30, and who, during the last seven years of his life, had twenty attacks of brief unconsciousness, attended by stertorous breathing and increased bradycardia. He died in an attack. The autopsy showed a large amount of fat about the heart, atrophy of the heart muscle and dilatation of the right auricle. Adams also mentions the case of a physician, sixty-eight years old, with similar attacks. The autopsy showed a fatty heart and extreme arteriosclerosis. Stokes (2), in 1854, reported a case with onset at sixty-five years of age, in a man who in three years had about 50 attacks of unconsciousness and a pulse rate of 28. He considered fatty heart the cause. Andral (3), in 1834, and Halberton (4), in 1841, reported other cases. The case of Halberton was of importance as directing attention to the medulla oblongata as the possible seat of the trouble. An injury to the neck preceded the onset and the autopsy disclosed displacement of the odontoid process of the axis, ankylosis of the atlantooccipital joint, with narrowing of the foramen magnum and upper part of the spinal canal. The medulla oblongata was small and firm. The heart was large, the wall of the left ventricle thin, with thickening of the endocardium. The pneumogastric nerves were large and the right middle cervical sympathetic ganglion unusually developed.

The reports of Adams and Stokes were lost sight of and not correlated with similar cases described from time to time, particularly in France, until Huchard (5) called attention to them and

proposed the name "Stokes-Adams disease" for the combination of bradycardia and attacks of unconsciousness with disordered respiration and with or without convulsions, instead of the term "Pouls lent permanent avec attaques syncopales et epileptiformes," used by Charcot and his pupils. Huchard considered the affection a manifestation of arteriosclerosis, particularly of the coronary vessels and those of the medulla oblongata. Recent thorough investigations on the subject, particularly in Germany, have shown that the syndrome may exist without arteriosclerosis. While it is true that most patients have been of advanced age, there are exceptions. Thus, Schuster (6) reports a case in a child four years old, and Hoffman (7) one in a woman aged twenty-three. Huchard was inclined to exclude cases plainly due to nervous lesions not of arteriosclerotic origin, such as the case of Halberton, mentioned above, and the analogous cases of Lepine (8) and Boffard (9). Such exclusion is no longer warranted or desirable, as it has been shown that the combination of bradycardia with attacks of unconsciousness does not constitute a clinical entity, but may supervene in a number of diseases. However, in another direction a limitation may be made. As stated by His (10), in some of the cases included by Huchard a genuine bradycardia did not exist, as weak beats were heard at the apex of the heart between those transmitted to the periphery. Such cases should be excluded, as it must be insisted on that bradycardia is the essential and fundamental element in the Adams-Stokes syndrome; and bradycardia only exists when there is a marked diminution in the number of ventricular contractions. An interesting fact in this connection is the observation of His and others of a larger number of auricular than ventricular contractions, as indicated by faint sounds over the base of the heart between the apex beats, or by the presence in the neck of venous pulsations more frequent than the heart beats. This phenomenon of atrioventricular allorhythmia, called "Herzblock" by His, and studied in animals by Gaskell (11) and Engelmann (12), deserves the attention of clinicians

* Read before the Chicago Pathological Society, May, 1900.

and should be looked for in every case of bradycardia.

The following case reported by Neuburger and Edinger (13) shows how the syndrome may be produced by a nervous lesion:

A man, forty-six years old, had repeated attacks of unconsciousness coming on during or after defecation. The pulse rate was as low as 18 beats a minute. The autopsy was made by Weigert. The abdominal and thoracic viscera, including the heart, were normal. The cerebrum was symmetrical, while there was an almost complete absence of the right half of the cerebellum. The pons was narrower on the right side and the right restiform body only half the size of the left, while the left olive was very small. The network of fibres in the right vagus nucleus was almost absent. In the region of the decussation of the pyramids was a varix which compressed the upper roots of the accessorius.

The attacks in this patient were evidently due to pressure on the accessorius roots when the varix became engorged during defecation, and the case adds support to the view that the cardio-inhibitory fibres in the vagus are derived from the accessorius.

No attempt will be made here to enumerate even the large number of cases of heart disease of various kinds reported, which have presented the Adams-Stokes syndrome. Extensive reviews are found in the articles by Prentiss (14) and Edes (15) in this country, and in those by Hoffmann (7), Jaquet (16), and Luce (16), which have appeared in Germany. However, the fact needs to be emphasized that the condition has been noted as a complication, not always fatal, of myocarditis following infectious diseases, as acute articular rheumatism (Schuster (6), Grob (18)), pneumonia (Flint (19)), and typhoid fever (Figuert (20)). Hoffmann's case was that of a woman, twenty-three years old, who, at the age of eight years, went through scarlet fever, diphtheria, and typhoid fever, and had chlorosis at eighteen. She recovered from the attacks.

An extremely valuable case is that recently reported by Luce (17):

Man, aged fifty years, pulse rate 28. Attacks of unconsciousness lasting one to two minutes, during which the bradycardia was still more marked. A few times clonic convulsions of the facial muscles were noted. The autopsy showed a round-celled sarcoma involving the upper third of the ventricular septum of the heart, with a true bilateral infravalvular heart stenosis, partly caused by an aneurysm of the sinus Valsalvæ of the right anterior aortic valve segment. No tumor tissue was found outside the heart, but there were metastases in the heart muscle. A moderate

sclerosis of the aorta was present; the vessels at the base of the brain were smooth. No gross changes were found in the nervous system, and the most painstaking microscopical examination of the entire medulla oblongata and upper cervical cord by means of serial sections showed nothing abnormal. The nuclei and intramedullary fibres of the pneumogastric nerves were studied particularly carefully and found intact. On the other hand, there was a well-marked degeneration, both old and recent, of both pneumogastric nerves outside the medulla. The nuclei and fibres of the accessorius within the cord were also normal, while degeneration suddenly commenced at the exit of the fibres from the medulla.

Luce is of the opinion that the principal part of the vagus fibres pass through the septum, and that the degeneration of the vagi was ascending and due to the presence of the tumor in the septum. Jacobson (21) has demonstrated a similar degeneration of the nerves of the brachial plexus from compression by a mammary carcinoma. Luce further concludes that in its trophic relations the heart is independent of the vagi and that the presence of bradycardia together with bilateral vagus degeneration renders probable the muscular origin of the bradycardia. Very interesting is his suggestion that the presence of sarcoma cells in the heart muscle might have interfered with its function, especially in connection with the case of myasthenia gravis reported by Laquer and Weigert (22). A man, thirty years old, in addition to the usual features of that disease, had fainting attacks with a drop in the pulse rate from 72 to 40. At the autopsy a malignant cellular tumor (lymphosarcoma) of the thymus was found. The muscles showed no gross change, but in pieces from the deltoid, diaphragm, and heart, examined microscopically, small collections of tumor cells like those in the thymus were found between the muscle fibres.

From a case reported by Krause (23), where chronic interstitial nephritis was practically the only autopsy finding, it appears that the syndrome may be a manifestation of uræmia. This had previously been suggested but not proved by Debove (24).

Through the kindness of Dr. Frank Billings I am able to add a case. I wish to express my thanks to Dr. Billings for permitting me to publish the case and for placing both the hospital record and the record made at his office at my disposal.

The patient was first seen by Dr. Billings on February 18, 1902, when the following notes were made:

Mr. B., teamster, single, aged forty-six years. Nothing of interest in the family history.

Personal History.—He has generally enjoyed good health. Fifteen years ago he had an attack of jaundice, unattended by pain, lasting eight weeks. Has had gonorrhœa, but denies syphilis.

Present Trouble.—Six months ago the patient fell down stairs and injured his left chest. Following this he suffered from sharp, sticking pain in the cardiac region when lifting. A physician ascribed this to an injury of a rib, but found no fracture. After two months of local treatment, during which time the patient continued at his work, this pain all disappeared. He was then in his usual good health until two months ago (December, 1901). One day, while walking to his work, he fell down unconscious. The unconsciousness was only momentary; he got up and went to work. Since then he has had six similar attacks, some of which came on while he was sitting. They always appeared without warning. The unconsciousness was always momentary. There were no struggling, no muscular twitchings, no frothing at the mouth or biting of the tongue. The attacks occurred independently of the meals, were never associated with nausea or vomiting and never preceded or accompanied by pain. During these two months he has suffered from dyspnoea, which has recently increased in severity. At first it was only noticed on exertion, later, it often troubled him during the night. He has had frequent attacks of vertigo. There were no headaches, no digestive disturbance, no difficulty in swallowing, no change in the character of the voice. Eyesight good.

Examination.—February 18, 1902. Weight 150 pounds, 25 pounds less than the normal weight. Skin dusky and cyanotic tinge on the lips. Hands and feet cold. The right pupil is larger than the left, irregular in outline, does not react to light, and only slightly in accommodation. The trigeminus pupillary reflex is not present. The left pupil is normal. Ophthalmoscopic examination shows normal findings. Thorax symmetrical, expansion on the left side slightly better than on the right. The apex impulse is in the sixth intercostal space near the anterior axillary line. The upper border of cardiac dulness is at the third rib; right border, a finger's breadth to the right of the sternum; left border, one inch to the left of the left nipple line. There is also a nearly circular area of dulness over the upper part of the sternum, reaching from the upper border of the third rib nearly to the episternal notch. No thrills palpable. The first tone over the entire præcordium is split and in the region of the apex a very slight systolic blowing can be detected. The other tones are pure, the second pulmonic and aortic moderately accentuated. The lung borders are normal, respiratory excursion good. Percussion gives good resonance over both lungs. There is normal vesicular breathing over the left lung. Harsh inspiratory and expiratory sounds are heard all over the right lung, most marked in the second interspace, to the right of the sternum. No râles. Liver dulness extends two fingers' breadth below the costal arch; normal resistance, slightly tender, edge rounded. Spleen not palpable. Knee reflexes normal. Laryngeal examination shows normal position and mobility of the vocal cords.

Tracheal tugging absent. The radial artery is hard and cordlike. Tension normal. Frequency 40. No arrhythmia. The radial pulses are equal in volume and synchronous. Deep in the fossa jugularis a distinct pulsation can be felt. Extremities free from œdema.

The patient was admitted to the Presbyterian Hospital on the following day, February 19, 1902; pulse 48. February 20th, pulse 44-60; February 21st, 44-48; February 22nd, 40-44; February 23rd, 36-48; February 24th, 36-40. It continued at about this rate until the patient was discharged on March 18th. Maximum 60, minimum 24; the average of 56 observations was 39.5. Once (on February 22nd) the pulse was noted to be intermittent. Urine acid, quantity in twenty-four hours 950 c.c., sp. gr. 1.021, turbid, reddish brown, urea (Doremus) 2.3 per cent. No albumin or sugar. No casts. Moderate number of red blood cells, many leucocytes, uric acid crystals and amorphous urates were found in the sediment. He was given sodium iodide, grains v, t. i. d., and magnesium sulphate two drachms once a day. The temperature was generally a little below normal, occasionally as low as 96° F. He was discharged improved on March 18th, and readmitted on August 21, 1902, with the history that he had felt quite well until August 14th, when he had an attack of unconsciousness. Three days later he had a second attack. An indefinite aura had preceded these attacks, either dizziness or "a feeling as if something was going to happen," as the patient expressed it. But the warning was too short to give the patient time to lie down. The fall was forward. The duration was very brief, the patient would get up unassisted immediately after striking the floor and resume conversation where he had left off. The attacks were not followed by headache. In June—two months before the last admission—he had noticed some œdema of the feet. This would disappear on lying down. The physical signs were about the same as before. It was noted that, with the patient in the recumbent position, the left jugular vein became greatly distended. There seemed to be a resonant area between the heart dulness and the dull area over the upper part of the sternum. There was a systolic murmur over the entire præcordium and also a roughening of the first part of the diastole. Slight œdema of the ankles. The average of 22 counts of the pulse up to the end of August was 40.6, maximum 60, minimum 30. In September the patient was away from the hospital eleven days. The average pulse rate of 37 observations was 35.4, maximum 48, minimum 26. In October the average of 43 observations was 29.6, maximum 54, minimum 22. The time it reached 54 was the only time it exceeded 36. August 23rd uranalysis showed: quantity in twenty-four hours, 500 c.c.; dark amber color, cloudy, sp. gr. 1.020, alkaline, trace of albumin, no sugar, no casts. A morning specimen examined August 22nd was acid and contained no albumin or casts. Several other examinations were made and no casts found at any time. The patient was first given sodium iodide, grains v, t. i. d., later calcium chloride, grains xxx, t. i. d. A few injections of 10 c.c. of a twenty per cent.

gelatin solution were given, as the substernal dullness suggested the presence of an aortic aneurysm. An enema of normal salt solution was given every morning.

October 21st, the afternoon temperature was 97, pulse 28, respirations 20. At 4 p. m. a gelatin injection was given. At 7:15 p. m. the patient had a severe chill, lasting twenty minutes. At 8 p. m. the temperature was 101.2° F., pulse 35, respirations 26. At 11 p. m. the temperature was 100° F., the pulse 35 and respirations 26. He was quiet, comfortable, and slept most of the evening. At 1:30 a. m. he fell from the bed, was pulseless when reached by the nurse and took only one shallow inspiration. There was moderate cyanosis of the skin and mucous membranes. All attempts at restoration were futile.

AUTOPSY.

The autopsy was held sixteen hours after death.

The anatomic diagnosis is: Sclerosis and dilatation of aorta. Fibrous myocarditis. Fibrous mural endocarditis. Thinning of interventricular septum. Cardiac hypertrophy and dilatation. Atrophic emphysema of left lung. Pulmonary congestion and œdema. Hæmorrhagic infarct of lower lobe of right lung. Right hydrothorax. Hydropericardium. Passive congestion of the liver, with cirrhosis. Passive congestion of intestines, spleen, and kidneys. Adhesive fibrous pleuritis (left). Enlargement of solitary follicles of large intestine.

The description of the heart and pericardium is as follows: The pericardium measures 13 cm. from side to side. It is adherent to the left pleura. The cavity contains several ounces of slightly blood-stained serum. The heart is very flabby, and together with the thoracic aorta weighs 790 grams. The right auricle is very large. The right ventricle is distended with blood, and measures 12 cm. in length internally. The circumference of the pulmonary opening is 12 cm. The left ventricle is 10 cm. long (internally). The circumference of the aortic opening is 9 cm. The average thickness of the left ventricular wall is 15 mm., of the right 7 mm. The pulmonary and tricuspid valves are smooth, the cusps of the latter thicker than usual. The tricuspid opening admits the tips of seven fingers, the mitral five. The mitral and aortic valves are large and thickened, but smooth. There is considerable fibrous thickening of the lining of the left ventricle 4 cm. below the base of the aortic valves. The upper part of the ventricular septum is very thin, white, and fibrous, and translucent when held up to the light. This thinning is much more marked than seen in the normal "undefended space." There are white fibrous areas in the myocardium near the base of the left ventricle. The foramen ovale is closed. The coronary arteries are smooth.

Aorta: 5 cm. beyond the valves it measures 9 cm. in circumference. Throughout the thoracic portion are many slightly raised yellowish areas. The circumference of the descending aorta is 5.5 cm.

The brain shows no external change; weighs 1,370 grammes.

HISTOLOGICAL EXAMINATION.

Heart. Wall of left ventricle: The pericardium is thickened with scattered accumulations of small uninuclear round cells, mainly around the vessels. In the myocardium there are circumvascular infiltrations as well as accumulations of round cells between the muscle fibres. Many of the round cells are of the multifornuclear variety. In places the muscle fibres are separated by fibrous tissue and contain vacuoles. Segmentation and fragmentation of the fibres are also present.

The *Ventricular Septum* is made up largely of fibrous tissue, with thickened vessels and considerable circumvascular collections of round cells.

The *aorta* shows calcification, fatty degeneration and vascularization of the intima, and circumvascular infiltrations in the adventitia.

Brain.—Sections from various parts of the cortex show no definite changes. Two thin pieces from the upper and lower portions of the medulla oblongata were treated by the Marchi procedure. No degeneration is present. The remainder of the medulla was cut in serial sections and alternating sections stained by the Weigert-Pal (counterstained with sodium carminate), hematoxylin-eosin, and Van Gieson methods. All tracts of fibres were found normal. The nuclei of the cranial nerves, including the tenth pair, show a normal number of cells, and no changes in the cells ascertainable by these methods were seen. The vessels were not changed. Sections from the upper cervical cord show no changes by the Marchi and Weigert-Pal methods.

Professor Barker was kind enough to examine carefully the sections from the nervous system and confirmed these negative findings.

Microscopic sections were made from the other organs and showed nothing of particular interest. Cultures made from the heart's blood were sterile.

I regret, in view of the findings in Luce's case, having failed to secure material from the vagus nerves. The examinations made, however, exclude a lesion in the medulla to explain the presence of the Adams-Stokes syndrome. The existence of a well-defined fibrosis of the ventricular septum adds additional interest to the observation of Luce.

The importance of lesions of the septum is further shown by the finding in cases of high grade bradycardia of an aneurysm of the septum by Peacock (25), and of cicatrization of the septum in two cases by Goddard Rogers (26). It is not stated that attacks of unconsciousness existed in these cases. But that is of no great moment. It must be emphasized again that the fundamental symptom of the Adams-Stokes syndrome is the bradycardia. As stated by Luce, the nervous symptoms vary, and are the expression of the individual reaction of the central nervous system, particularly of the medulla oblongata, to the circulatory disturbance brought about by the slowing of the cardiac contractions.

The object of the preceding brief *résumé* and case report is to emphasize the following points:

1. The Adams-Stokes symptom-complex is not a clinical entity. It may supervene in various diseases involving the heart, vagus nerves, or medulla oblongata.

2. It is particularly likely to set in when the upper part of the ventricular *sæptum* is diseased.

3. Arteriosclerosis is not essential for its production.

4. Its occurrence in a well-studied case of localized lesion of the intramedullary portion of the accessorius nerve supports the hypothesis that the inhibitory fibres of the heart are derived from this nerve.

5. A lesion of the ventricular *sæptum* is capable of producing bilateral degeneration of the extramedullary cardiac fibres of the vagus nerves.

6. The existence of bradycardia in a case with bilateral vagus degeneration proves the muscular origin of bradycardia in such a case as the inhibitory influence of the vagi then must be absent.

7. The bradycardia is the fundamental feature of the Adams-Stokes syndrome. The nervous symptoms vary largely according to the susceptibility of the nervous centres to the circulatory disturbance induced by the bradycardia.

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"Negro Hospital" Wanted.—A negro teacher in the Penn school in Kansas City, Mo., recently appeared before the board of public works in that city to urge the building of a hospital exclusively for the care of colored people. He wished also that the entire staff of physicians and nurses should be negroes. The board was unable to take any steps in the matter, except to counsel waiting until bonds were issued for the erection of public institutions.

THE PROGNOSIS AND ORTHOPÆDIC TREATMENT OF ACUTE ANTERIOR POLIOMYELITIS.*

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The course of acute anterior poliomyelitis is naturally divided into an acute stage of onset, the time for the diagnosis and immediate treatment; and a chronic stage of recovery, during which the prognosis and orthopædic treatment are called into question. The practitioner hastily called to the bedside finds any hopeful view of the case as to life, general health, and final functional outcome, overclouded by the gloom of the surroundings, the helplessness of the newly paralyzed child, and the hopelessness of the parents and friends who have too often seen sad results from lack of treatment in other cases. Then, too, few medical men have faith based upon a personal knowledge as to the final outcome of given cases, to be able to draw upon it with any degree of confidence. To very few is given the chance to follow such cases from beginning to end. Almost never in private practice, and rarely in hospital service, do we find the same patient coming to us hopefully day after day, through several years until the final outcome. The parents imbued with the spirit of hopelessness carry the patient from one door to another, forgetting as a matter of course all the optimistic views and favorable prognoses, and remembering only that some one, somewhere, had told them that the child was forever paralyzed, and that nothing ever could or should be done. Even our best authorities, looking upon the disease as a purely destructive one, give pessimistic prognoses. "The outlook is never particularly good," says the gloomy Eichhorst, judging from purely a clinical and pathological standpoint. On the other hand, Lange, fresh from the results of eighty or more successful tendon transplantations with their wonderful functional outcome, agrees with Jacobi that our prognoses have hitherto been altogether too gloomy.

The prognosis in any given case of acute anterior poliomyelitis can be looked at from two different standpoints; in part independent of each other. There is to be made a prognosis as to the ultimate recovery of physiological activity in any individual nerve, muscle, or joint; and a prognosis as to the return of function or usefulness in the affected member.

The ultimate recovery of the physiological activity depends upon the damage done by the morbid process and the power of the organism to recover

from it; in other words, upon the pathology of the disease and the physiology of recovery. The modern understanding of the disease dates from Charcot, who advanced proof that it was due to the inflammation and degeneration of the large multipolar ganglion cells in the anterior horn of the spinal cord. It makes little difference whether we believe, with him, that the process is a purely parenchymatous one, affecting the large cells primarily, or whether we hold, with Eichhorst, that the inflammation starts in the walls of the blood and lymph vessels and affects the cells secondarily. It is, however, of vital interest for any one hoping for a favorable outlook, to know that the disease is an acute infection and therefore self-limiting, that it attacks mainly the large multipolar ganglion cells and their protoplasmic process, and generally allows other structures to escape without serious damage (Seeligmüller, Birch-Hirschfeld). Then, too, infectious multiple neuritis, never a hopeless condition, complicates most of the severe cases and gives rise to many of the immediate paralyses (Redlich, Leyden, Oppenheim). Whether anterior poliomyelitis is but a part of a central or disseminated myelitis, as Goldscheider believes, is not so important for our purpose, as to know, with Collins, that each nerve fibre and each muscle has definite ganglionic cells in the anterior horn of gray matter for their nutrition and innervation; the cells for the extensors being nearer to the median line, and those for the flexors being nearer the periphery, and that inflammation of those near the median line gives paralysis of the extensor muscles only and *vice versa*.

The physiology of recovery lies in the transference of the power to originate nervous activity from one set of cells to another, an occurrence which does take place beyond dispute when a flexor muscle is finally enabled to coordinate with the extensors of the other limb, after the tendon has been transplanted; and in nerve regeneration, a process which is also undeniable. The smaller unipolar ganglion cells of the anterior horn are in great measure unaffected by the morbid process. The rôle that these smaller cells play in the normal organism is pointed out by Foster, who says "that—until fresh evidence is brought—we are inclined to the belief that the powers of the gray matter do not depend upon the large conspicuous cells alone, or even chiefly—". It is fair, then, to assume that under favorable conditions the smaller cells can and do take upon themselves the powers of the larger ones, awaiting only the necessity and the favorable opportunity to exercise these powers alone. The power of nerve cells and fibres to regenerate, has also been long understood. It was proved by Rothman, who tied the aorta of dogs below the mesenteric arteries and

* Read at the annual meeting of the Ohio State Pædiatric Society held at Toledo, Ohio, May 27, 1902.

found that after six hours the cells of the anterior horn began to degenerate, after twelve hours they were colorless and had lost their protoplasmic processes, after four or five days they had begun to recover, and in sixteen days the majority of the cells had recovered their normal appearance.

Where paralysis is due in part to neuritis it is easily recovered from, but where the ganglion cell had been destroyed the nerve entirely degenerates. It was long held that such degeneration was for ever irreparable, but it remained for Ballance and Stewart to cast a deep shadow of doubt upon this idea, by proving that nerves can and do regenerate from the periphery upwards, a fact well worth remembering in speaking of the value of treatment. Leszynsky is also confident of the power of regeneration in nerve stems—"peripheral nerve fibres possess an inherent power of regeneration which seems almost unlimited, the time required being from a few weeks to seven years." Nor is the degeneration of muscle fibres supplied by degenerated nerves final in its existence. The ingrafting of a sound muscle into the body of a degenerated one has caused such a muscle to regain its activity.

The prognosis as to spontaneous recovery of activity depends, therefore, upon our ability to recognize the kind and extent of the lesion, and to find out the power of the organism to recover from it. Unfortunately, neither of these problems is here a simple one, and our power of looking into the unknown are indeed limited. One thing is certain, the amount of recovery is always less than the damage done, but two cases of absolute recovery being on record (Fry, Seeligmüller). The extent of the pathological lesion is best estimated by simple observation. It is directly in proportion to the amount of paralysis of the voluntary muscles present, and through Collins's brilliant work may be approximately mapped out as to its location. There is no way of telling how much multiple neuritis there is in any given case, except by the amount of pain experienced by the patient, and elicited by pressure over the nerve trunks.

For many years the medical world has sought some means of prognosticating with certainty how far recovery will take place and how much of it will be permanent. Electricity has long been the most useful measure, but its value has been greatly overrated in our books upon the subject, especially as to its capacity to indicate what muscles will be permanently paralyzed. In no disease is the reaction of the muscles to the faradaic current lost so early as in anterior poliomyelitis (Church and Peterson); the galvanic irritability is retained, but the amount of current necessary, as measured in milliampères, is greater than normal for any individual muscle, and the quality of the contraction also differs from

the normal. Where such change has once taken place, the return of the power of the faradaic current to produce contractions means recovery of voluntary control; the earlier the faradaic irritability returns the more rapid and complete will be the recovery of voluntary motion. *This is the only positive electrical test upon which all authorities agree*; but the converse is not necessarily true, and it presents a most serious and difficult problem. "How long may the faradaic irritability of the muscles be absent, until the degeneration is so complete that recovery of voluntary control motion is impossible?" Gowers says that "after ten days the loss of faradaic irritability means a partial permanent affliction of the muscles, and after three months very little improvement will occur." Leyden says from six to eight months is the limit; Seeligmüller and Eichhorst agree on from nine to ten months; Raymond, four months; Ashby and Wright, six months, while Sinkler reports a case in which the faradaic irritability was gone for fifteen months and yet, after sixty days of active treatment, voluntary motion returned. Judson and Hoppe both report cases of recovery after two years, while Osler, Whitman, and Hoffa wisely place no limit. My own experience has led me to the same conclusion, and one of my cases may be of interest in this connection.

CASE I.—Albert S., age twenty-three months. Family history negative. Personal history: Delivery normal; during first months of life was fed upon artificial milks; had severe colics and diarrhœas. Had sweats on back of head; severe and frequent attacks of bronchitis. At age of four months after one of these attacks had some severe nerve disorder which left him paralyzed over night as to both hands and limbs. There were no spasms, no rigidity, and no convulsions. Some power has returned, especially to hands. Has never walked: does not control bowels or bladder; cannot move limbs much, and back is much bowed forward.

Status præsens, December 16, 1900: Nourishment fair, development very irregular, fontanelles closed, dentition poor, head markedly rachitic, glands enlarged, ribs beaded and bent, epiphyses enlarged. Marked rachitic and paralytic kyphosis of spine, rachitic deformity of humeri, femora and tibiae. Lungs showed bronchitis, heart displaced to right. Spleen enlarged. No paralysis in hands and arms, but the deltoid and biceps are much weakened. The child cannot stand or sit erect on account of paralysis of the muscles of the back and legs where voluntary adduction, flexion, and inward rotation of the thigh, and the power to extend the leg have been lost. Other motion but slightly weakened. Legs and feet cyanosed and cold.

There was, therefore, a paralysis of the psoas, the quadriceps extensor, the adductors, and the internal rotators of the thigh, a grouping typical of anterior poliomyelitis. Knee jerks absent, plantar reflex present. The paralyzed muscles do not re-

spond to the faradaic current, and a strong galvanic current causes them to contract slowly and sluggishly. Treatment: baths, massage, interrupted galvanic and faradaic electricity, passive motion, gymnastics, braces, corset, walking chair and careful teaching.

September, 1901.—Muscles all respond to strong faradaic current.

December, 1901.—Patient can sit erect and walk in braces.

January, 1902.—Patient can now walk alone and actively innervate all his muscles.

The other electrical test which has been highly praised from the text book as a "sure test" for the permanency of the paralysis is the reaction of degeneration. This is observed in almost every case of anterior poliomyelitis in which it has been looked for, but its demonstration is always combined with the greatest of difficulties. It has been generally held that where the reaction of degeneration is present and does not disappear soon, the muscle is hopelessly paralyzed. Unlike the faradaic test it is a nerve reaction pure and simple. In a discussion before the New York Neurological Society, in 1894, it was practically condemned as an easy and reliable method for routine examination. Dr. Allen Starr held the opinion "that statements of late as to the value of electrical tests in diagnosis and prognosis had been either wholly dogmatic or wholly sceptical. A careful review of the literature would reveal that most authors on the subject had gone right back to Erb's original article, published in 1872, and had recopied his statements and diagrams. Those working along this subject had noticed from time to time that their results did not always agree with Erb's, but either tried to explain them away or did not make them public." Dr. Dana held "that it was here quite easy to deceive one's self, and that the operation (the demonstration of the reaction of degeneration) required an extremely judicial frame of mind." "It is absolutely necessary for all to use the same methods," he says, "so that we may be able to compare the results. The searching electrode must be a point 1 sq. cm. in size, the other electrode must be firmly tied down in an indifferent position. The amount of current necessary is, however, often too great to be used with the pointed electrode without severe pain." Leszynsky says, "the demonstration of the reaction of degeneration is not an essential feature . . . it simply denotes an interference with nutrition in the course of the motor tracts . . . ; the presence of the reaction of degeneration is not incompatible with the preservation of voluntary mobility in the same area." In children the proper application of all electrical tests, and especially the reac-

tion of degeneration, is exceedingly difficult. To place a relatively large electrode directly upon the small area necessary for the stimulation of a certain nerve, is a matter of the greatest nicety. I am free to confess that I have never satisfied myself that I have properly obtained the reaction of degeneration. I have never spoken to any one who had; and when I review the statements of men who are in command of well equipped clinics with all the modern appliances at their command, Rockwell, Packard, Stengel, Porter, Terribery, Schultz, and others, I find that in reporting cases of anterior poliomyelitis, even where the diagnosis was in question, they have been silent as to the absence or presence of this reaction. I can only conclude that they are silent because they, too, had not obtained it successfully, because it is too inconvenient, too inexact and indeterminate. Recovery from the reaction of degeneration, as from the loss of faradaic irritability, means recovery of power; but the presence of degeneration at any time, even two years after the onset, is not incompatible with recovery. Hoppe, of Cincinnati, reports a case where the reaction of degeneration was present two years after the beginning of the paralysis, but the patient ultimately recovered almost complete voluntary control of all the paralyzed muscles.

Another test for determining what muscles will recover has been advanced by Régnier, under the name of Negative Contractures or Resistance Test. He calls the effort to raise the arm (for instance) positive; the effort to hold it in this position is called a negative one. It is a well observed fact that a patient may not be able to raise his arm, yet may have the power to hold it there when once raised up. Another form of negative contractures would be the contraction of one group of muscles while trying voluntarily to contract another. The problem sought is to demand a minimum of muscular effort while inducing the corresponding motor cells to exert a maximum of energy, thus overcoming the resistance of degenerated nerve elements.

A beautiful example of reflex negative effort was given me a patient, R. F., aged five years, who had a total paralysis of the right leg and thigh, and a paralysis of the dorsal flexors of the left foot. He could only excite the peroneus tertius of the left foot when he flexed the knee at the same time, and could only make the slight movement of the right small toe when he tried a similar movement of the left. The process of making these tests is simple. The limb is raised to a determined height and held there; at the same time firm pressure is applied to the segment of the limb to be tested as near the periphery as possible, the pressure bearing mostly on the tendons. The muscles of the extremity are now all

made to contract, which brings out a reflex negative contracture of the afflicted ones, the intensity being proportional to the excitability of the motor cell. Régnier found it present in more than 50 per cent. of all cases, even when the reaction of degeneration was present.

We thus have a number of methods which permit us to say with great certainty that certain muscles *will* recover, but as yet we possess no power of definitely ascertaining what ones are hopelessly lost.

The prognosis as to the recovery of usefulness and function of a *member* is the most favorable when the proper treatment can be instituted. There is not a single case, old or new, which cannot be benefited in some manner, and few which cannot be brought into useful activity by well planned treatment. Functional return can never be perfect, but this is rarely demanded. A case by Vulpus is interesting; for sixteen years the patient walked upon the hands and knees, but, after a number of plastic operations upon the muscles and tendons, regained the power of walking up stairs unassisted. The natural result of holding such a favorable view as to functional return is to advocate a treatment of *all cases* no matter how severe, how neglected, how deformed, and of how long standing. Every case is to be treated hopefully through months and years if need be; none should be discouraged, and never under any conditions has a physician the right to say "nothing can be done."

(To be concluded.)

Mississippi Valley Medical Association.—The twenty-ninth annual meeting of this association will be held in Memphis in October. Dr. Henry E. Tuley, of Louisville, Ky., states there will be an attendance of at least 500. The non-professional programme, as arranged thus far, is as follows: The visiting ladies will be entertained at the Nineteenth Century Club during the first afternoon. A large committee under the chairmanship of Mrs. B. F. Turner will provide for this reception and entertainment. The entertainment at the Hotel Gayoso will be given during the evening of the same day. This will be an informal entertainment accorded the visitors and their wives. The second day's entertainment will be something out of the ordinary and in keeping with old time Southern hospitality, while still another entertainment is contemplated. The meetings of the association and the exhibits will be held in three separate halls. The general sessions and the surgical section will hold their meetings in the large banquet hall of the Gayoso, which hotel will be headquarters. The medical section will hold its sessions in the banquet hall of the Peabody Hotel, and the exhibits will be made in the large dining-room of the Peabody. The railroads and hotels have signified their intention to give low rates, and those who wish to attend will be provided room and accommodations.

LISTERISM; ITS PAST, PRESENT AND FUTURE.

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It has been the common experience of individuals most closely associated with the history of the world, in science, that the unintended and unforeseen results of their actions and investigations have often proved of vastly more importance than the objects aimed at; for instance, Benjamin Franklin with his kite and key opened the door for Morse, Edison, Marconi, and Röntgen. Professor Simpson, of Edinburgh, inspired by pity for suffering humanity, laid the foundation for Wells, and to-day chloroform stands as an everlasting monument to the memory of these men, and a boon to human kind. In a like manner the unexpected and unforeseen results of the theory of Lord Lister are unspeakably greater than the attempt to disinfect a flesh wound, important as that was.

During the last score of years surgery has been completely revolutionized, statistics have been entirely reversed, and where thousands formerly died thousands now live, their lives being indirectly due to the labors of this one man and his teaching.

It is necessary to realize the difference between life and death to appreciate the changes that have taken place during this time. Much that was in former years regarded as unjustifiable has become both justifiable and feasible; to-day patients live after operations which, no longer ago than 1878, were considered impossible; or, if performed, exposed the surgeon to the charge of manslaughter (1). Nothing becomes a physician or surgeon more, who would arrive at a just conclusion regarding events in the progress of his science, than breadth of vision. Not theories and dogmas are implicated, but science; not sections and peoples, but nations and civilization. It is on the hinge of these questions that the scientific history of centuries will turn.

Nearly two centuries and a half ago, following closely upon the discovery of the microscope, the first attempt to demonstrate the germ theory was made by Kircher. He had been able to see living microorganisms in all forms of decomposing substances, and believed that similar organisms existed in diseases, which he considered might be due to their agency. His theory received very little attention, however, until 1675, when Leeuwenhoek, the father of microscopy, by means of better instruments, was able to describe the germs which he saw very accurately, and, in 1683,

published graphic descriptions and wood cuts illustrating microorganisms, which were doubtless intended to represent leptothrix filaments, vibrios, and spirilla. Indeed, we can almost recognize these microorganisms as bacteria from Leeuwenhoek's accurate descriptions, apart from his figures. Leeuwenhoek was not an advocate of the germ theory of disease, but, in 1701, Nicholas Andry revised the teaching of Kircher and was made conspicuous by his publications regarding microorganisms, which he described as worms.

In 1718, Lancisi believed that the deleterious effect of the air in malarial districts depended upon animalcules, as they were called; and others attributed the plague in Toulon, in 1721, to a similar cause. Soon all diseases were attributed to vermicules, and this led to the theory being ridiculed and discredited. A subsequent attempt to establish the idea of contagium vivum was made by Plenciz, in 1762, but it failed, and the whole theory soon came to be regarded as an obscure hypothesis.

The natural history of the microorganism, however, never lost its interest to scientists, and late in the eighteenth century Baron Gleichen, Lesser, Hill, Müller, and others made wonderful advances in the work of classifying germs. During the first half of the nineteenth century Needham, Schulze, Schroeder, and others demonstrated the relation of germs to putrefaction. Tyndall also demonstrated the presence of spores in certain forms of bacteria. Bassi, in 1837, discovered the cause of the disease of silkworms, and a year later Boehm found a certain organism in cholera, which was then raging in Europe. Upon these results Henle revived the theory of contagium vivum in 1840, but it remained for the master mind of Pasteur, in 1861, to collect the scattered facts of the early discoveries and establish the rôle played by the microorganisms in the processes of fermentation and putrefaction and in diseases, such as anthrax, pyæmia, septicæmia, and chicken cholera. However, the theory of the germicidal origin of infectious diseases was not readily accepted by Paul Bert and others until Robert Koch, in 1877, elevated the theory of contagium vivum to a demonstrable and established fact (2).

The march of science, however, was not to be arrested at this point. The genius of Joseph Lister, in the face of an opposition so furious that it often threatened his very life, applied the germ theory to surgery, which brought about a condition long yearned for by surgeons throughout the world.

Roswell Park, in his epitome on the history of medicine, has concisely stated Lord Lister's

theory in the following quotation: "Lister began with the supposition that the air contains the germs which are most active and pernicious in producing disease."

It had been the custom up to Lister's time to observe usually the ordinary forms of cleanliness; but, not appreciating the multitude of germs which lurk in and about the skin, it had not been customary to scour and prepare it as we have learned to do since Lister's day.

The ligatures, instruments, and the dressings which were used during the operation, as well as the sponges, usually went through the ordinary forms of cleansing; and yet Lister's investigations showed the utter inadequacy of such preparations. His most important object lesson, however, was that everything that came in contact with fresh or bleeding tissues might carry infectious materials, unless it had been itself freed from their presence. Accordingly, the system taught the accurate preparation of everything, from the skin of the patient, which was to be carefully cleansed and shaved, to the hands of the operators, which were to be scrupulously scrubbed, as well as those of every assistant who might handle or touch any of the instruments or dressing materials. It included, also, the careful preparation of sponges, suture and ligature materials, all of which were protected from air contact and kept in antiseptic solutions until the moment of their use. The dressing materials were impregnated with substances, like carbolic acid, which had proved to be germicidal; an impermeable material, like oiled silk, was used to cover the surgical dressings, in order that fluids that might leak through should not come in contact with the air which might permit of their putrefaction, while, at the same time, air from without could have no access to the deeper parts thus protected.

The original method of Lister was very elaborate, and also included the dissemination throughout the air of the operating room of a vapor of carbolic acid, which was, of course, disagreeable, sometimes being almost fatal to operators and bystanders alike, its use being based upon the notion that the air was the substance most to be dreaded. The instruments were placed in strong antiseptic solutions, usually carbolic acid, which were pungent and irritating to the hands of all who came in contact with them. So thoroughly and ubiquitously were antiseptic materials employed, that it was soon learned that they were themselves rather injurious to the best interests of the patients upon whom they were used. Their use, of course, was contingent upon the notion, then everywhere prevalent, that pow-

erful solutions must be used in order to counteract the activity of the much-dreaded germs.

Hardly had this theory reached completion before investigators began to modify and improve upon it. A better knowledge of bacteriology and a wider experience in combating infection through open wounds soon brought to the front such men as Bantock and Lawson Tait in violent opposition to Lister's theory.

Professor Hamilton, of the Royal College of Surgeons, Dublin, very ably voiced the sentiment of the early opponents of Listerism in the following. He says: "It may not be unprofitable to determine what is the present actual condition of this system, and, setting aside bogus theories and unsubstantial hypotheses, to ascertain its exact relation to our every-day work. For, after all, it must come to this important question: What help does antisepticism afford to the daily practice of surgery? No honest or impartial observer can fail to recognize with a deep sense of gratitude the magnificent results and brilliant successes which have attended the Listerian system—results which have reorganized surgical methods and given a startling impulse to the operative treatment of injury and disease.

"The system may be wrong in practice and founded on an erroneous theory, but that wonderful results have followed since its introduction is a historical fact beyond contradiction. And yet, even with this triumphant record, we find some of its most devoted adherents now relaxing the stringency of its application and abandoning parts of the system which were long regarded as essential, and that, too, without any diminution of successful results.

"Again, we find antiseptic precautions so little regarded, yea, almost set at naught, as to prompt the ovariologist to flush the peritonæum with water containing 'germs and their spores and thirty different kinds of beasts,' and yet point to a record of successes little, if at all, inferior to the more complex methods.

"In this burning controversy, to what conclusions can the simple inquirer after truth arrive—he who is anxious to decide what is best for those who intrust to his judgment and skill the safety of their limbs and lives?"

The sentiment embodied in the foregoing quotation soon became prevalent among thinking men, and everywhere surgeons and bacteriologists alike began to investigate the merits of Sir Joseph Lister's theory of antisepticism.

It was found that strong solutions of the most poisonous drugs required from a few hours to several days to destroy the germs which the surgeon

so much dreaded. It was also found that tissues healed better that had not been subjected to the strong irritating antiseptic solutions which destroyed the vital resistance of the animal body and thus impeded rather than enhanced the process of healing. The fact was also established that the cause of sepsis was not germs alone, but a putrescible fluid, the result of putrefaction and its subsequent absorption.

Thus, it was conclusively determined that the system prescribed by Sir Joseph Lister, as based upon the danger from germs to living tissues and upon the germicidal power of carbolic acid, was wholly erroneous, and that practice in accordance with this theory was impossible (3).

To what, then, were due the brilliant results of this method in the hands of such men as Thornton, of London, Emmett, of New York, and others?

In the light of our present knowledge the answer to this question seems simple enough; but to the earnest, painstaking investigators of fifteen years ago the difference between antiseptics and asepsis was a difficult problem, and the conflicts between the old theories and the new precipitated discussions "where thoughts breathed and words burned."

The simplicity of the problem at length became apparent to every one, and, since 1890, the advocates of the old antiseptic method have been forever silenced, and cleanliness or asepsis stands preeminent—the corner-stone of the foundation of surgical science.

Notwithstanding the imperfections of the theory of Lord Lister, the scientific basis upon which it was founded has never been shaken. The fact that modern surgeons have discarded the paraphernalia originally designed does not in any manner overthrow the germ theory, but tends rather to establish it more and more firmly (4).

But how do statistics stand at the present time when brought in comparison with those before Lister's day?

Professor McBurney tells us that a mortality of 60 per cent. to 70 per cent. for major operations, with over 90 per cent. of all cases resulting in suppuration, was the common experience of the ablest surgeons of thirty and forty years ago. Listerism, however, brought about a wonderful change. In 1886, Knowsley Thornton, of the Samaritan Free Hospital, of London, one of the strongest and most persistent Listerians, presented a table of over three hundred laparotomies with a percentage of mortality from 6 per cent. to 9 per cent. in hospital practice and 13.5 per cent. in private practice.

Nor was Thornton alone, for the chief advocates of Listerism were able to show a death-rate of from 6 per cent. to 12 per cent. in all major operations. But Bantock, one of the early disciples of antisepticism, with a defective technique, reduced the mortality to from 6 per cent. to 7 per cent., and Lawson Tait brought it below 6 per cent.

But what of the present day, with a more thorough technique and better equipment?

Professor Howard Kelly, of Baltimore, presents a record of mortality of 4.5 per cent., covering a period of several years, and a record of suppurating cases as low as 6 per cent. (6); and P. H. Ingalls, of Hartford, has placed to his credit over fifty successive laparotomies during the last two years and a half without a single death and only 5½ per cent. of suppurating cases.

Thus it is clearly demonstrated in the face of these facts that to asepticism, the outgrowth of Listerism, is due this wonderful reduction in the death-rate, and by it surgery has been raised from a plane approaching barbarism and placed at the head of all modern sciences.

The history of the germ theory, like the history of man, is a chain of evolution. The first feeble attempts at an exact knowledge of microorganisms were like the first feeble steps of civilization: A spark in the black depths of ignorance. How truly, says philosophy: "The first tottering, groping steps of the child are a prophecy to the strong stride of manhood." Even so the advance of the germ theory. At first the steps were slow and faltering along a dark path; but, as discovery after discovery lighted the way, the stride became firm and strong. But has the end been reached? No! Science is as yet in the twilight of a great dawn. The day is approaching when men will look upon the masterly efforts of to-day even as do we upon the childish efforts of the "virile Greeks who clustered about the robed figure of Hippocrates at the shrine of Æsculapius in the Isle of Cos."

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The Perry County (La.) Medical Society met on August 21st, and reorganized in order to comply with the new constitution of the American Medical Association. Physicians from Green County are considering union with the Perry County organization.

THE OPERATIVE TREATMENT OF TUBERCULOUS GLANDS OF THE NECK.

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The operative treatment of tuberculous glands of the neck suggests to me to-day an entirely different procedure than it did a few years ago. Then I was satisfied with curetting in certain cases, and in others with removal of all the palpable glands. Now my operations for tuberculous glands of the neck consist of thorough cleaning out of the diseased areas. The glands, fat, infected fascia and, in fact, everything except important vessels and nerves are removed. If only a portion of one triangle is invaded by the disease, the entire space is thoroughly dissected; if the region anterior to the sternocleidomastoid is involved, a dissection is made from the styloid process to the sternum; if the posterior triangle is diseased, a dissection is made from the mastoid to the subclavian vein. My experience has been that usually a dissection of the entire region of the neck, unilateral, has been necessary to secure a permanent result. I have had three cases in which I deemed it advisable to dissect the submaxillary triangle only. This I did, and the result was satisfactory in each case. I have had three or four other cases in which I thought dissection of the submaxillary triangle with removal of one or two enlarged glands in the region of the internal jugular was sufficient. Recurrences invariably followed these incomplete operations.

On account of my belief in the necessity for extensive and complete operative procedures in the treatment of tuberculous glands of the neck; of the brief, and sometimes inadequate, descriptions of such operations in our ordinary text books; and on account of the difficulties that I have experienced in performing such operations, I shall give a few of the details that I have learned to observe in this line of work.

Incision.—In cases where a dissection of the submaxillary triangle suffices, a transverse submaxillary incision is used. In all other cases an incision directly over the sternocleidomastoid muscle, extending from the mastoid to the sternoclavicular articulation, is made. This incision gives sufficient room to dissect the entire region of the neck. It is followed by less deformity than are the curved and transverse incisions advised by Senn, Hartley, and Dowd. The advantage of making the incision midway between the anterior and posterior borders of the sternocleidomastoid muscle is that the body of the muscle supports the line of suturing.

Method of Operative Procedure.—The next step is to free the anterior border of the sternocleidomastoid. Usually this can be done quickly and safely, because there are no structures of importance close to the anterior border of the muscle. The disadvantages of attempting to free the muscle by beginning at its posterior border are, that the fascia is dense and strong at this point; pathological changes, such as adhesions, are found more frequently here than at the anterior border; the spinal accessory and superficial colli nerves are more apt to be injured. The sternocleidomastoid muscle is freed throughout its entire length. I do not think a complete division of it necessary in any case. The spinal accessory nerve can usually be easily located underneath the muscle. When this is done, its exact position, as it emerges from the posterior border of the muscle can be determined by making traction on the nerve trunk.

The next step is to expose and free the internal jugular vein. This, if difficult, is done by beginning to the inner side. Dense adhesions are not usually found on the inner side of the vessels, and the carotid artery can usually be readily located. The position of the artery is a guide to the vein. Though careful dissection is advised in freeing the vein, injuries to it are not considered serious. I no longer apply a temporary ligature to the internal jugular; neither do I control its circulation by a gauze pack placed at the lower angle of the neck as I formerly did. If the vein is wounded it is tamponed, clamped, and ligated. I have resected the internal jugular in seven cases without unfavorable results. I believe that the entrance of air into the venous circulation is generally considered too seriously by writers. The work of Senn and Hare shows that the entrance of a moderate amount of air into the circulation of certain animals is not serious. I have seen two cases in human beings in which there was every reason to believe that some air had entered the cut internal jugular, but no serious results followed.

The facial, temporomaxillary, external, anterior, and posterior jugular veins are disregarded. They are avoided if convenient; otherwise they are clamped and ligated.

Carotid Arteries.—The carotid arteries usually cause very little trouble. They are large, easily located and are rarely involved in adhesions. Injury to the common carotid requires distal and proximal ligation. I have never accidentally wounded the common carotid; but should I do so I should consider the accident a most serious one. My experience with the common carotid has been most unsatisfactory. I have ligated the common carotid six times. In four of these cases, second-

ary repeated hæmorrhages resulted in the death of the patients within five to twenty-one days. In two of the cases secondary ligations were done proximal to the bleedings. The relief was only temporary. In only one case, one of infected bullet wound, could the hæmorrhage be attributed to infection. Two were operations for carcinoma. One was an excision of an aneurysm of the common carotid. The two successful ligations were done previously to removal of the superior maxilla.

Spinal Accessory Nerve.—The spinal accessory nerve is best located under the sternocleidomastoid muscle by dissection, beginning from the anterior border of the muscle. Traction on the nerve trunk aids in determining its course. Compression of its fibres with an artery forceps produces contraction of the trapezius, and serves to distinguish it from other nerves. The occipitoclavicular portion of the trapezius is said, by some anatomists, to receive its nerve supply from the cervical plexus. In some patients a separate branch of the spinal accessory supplies this portion of the trapezius. Whenever this branch is present it should be preserved if possible. The spinal accessory nerve is usually out of the way in deep dissections of the neck. It is never found anterior to the stylohyoid and digastric muscles; it is always external to the internal carotid artery. In the upper part of the neck it may be anterior or posterior to the internal jugular vein. It is always found internal to the styloid process; and by dissecting from the styloid process downward there is very little danger of wounding the nerve.

Hypoglossal Nerve.—The hypoglossal nerve is never found anterior to the stylohyoid or posterior belly of the digastric muscles; and, as it is always internal to the mylohyoid, it can be disregarded in dissections of the submaxillary triangle. Deeper in the neck its relations are quite definite. It is always anterior to the internal jugular vein and always posterior to the internal carotid artery. It becomes superficial as it crosses the external carotid below the occipital artery, but is usually quickly and easily observed and avoided in this position.

Pneumogastric Nerve.—The pneumogastric nerve is avoided by remembering that it follows the large vessels. It is never found external to the internal jugular vein, and is always posterior to the subclavian vein. Its important branches are directed internally and should be carefully looked for when dissecting between the trachea and œsophagus.

Phrenic Nerve.—Division of the phrenic nerve is not necessarily fatal (Schroeder). It is easily

avoided. It is placed anterior to the scalenus anticus muscle; but lies posterior to the transversalis colli artery, suprascapular artery, and subclavian vein. The prevertebral fascia is anterior to all of these structures and, if the dissection is done from above downward and this layer of fascia carefully followed to its insertion into the clavicle behind the subclavius, the phrenic nerve, transversalis colli artery, suprascapular artery, and subclavian vein cannot be injured. If this layer of fascia is divided the dissection becomes more difficult, but I believe division of this fascia unnecessary. Since I have recognized its importance I have experienced no difficulty in following its anterior surface. I have never found adhesions or lymphatic glands posterior to this layer of fascia. If glands are found beneath it they are under the subclavian vein, and they can be more safely and easily removed from the axilla than from the neck.

Subclavian Vein.—The subclavian vein rarely offers much difficulty in dissections for tuberculous glands in the subclavian triangle. The glands usually lie above the vein and are separated from it by a distinct layer of fascia. If the dissection is made from above downward, and the fascia covering the scaleni muscles is not divided, the subclavian vein will not be injured.

Pleura.—This can be easily avoided. As the pleura lies posteriorly to the subclavian vessels and brachial plexus, it can be disregarded so long as the layer of the prevertebral fascia, which is attached to the clavicle, is not divided.

Thoracic Duct.—Injuries to the thoracic duct are uncommon, unless the duct is in an abnormal position. It should be remembered that the duct is always external to the internal jugular vein and posterior to the fascia covering the subclavian vein and scaleni muscles. If wounded the thoracic duct may be sutured, tamponed, or ligated. Its complete occlusion is not necessarily fatal (Keen and others).

Right Lymphatic Duct.—The right lymphatic duct is usually disregarded in operations for tuberculous glands of the neck. It is my custom to clamp and ligate the base of the mass of tissue removed from the subclavian triangle. The dissection is done from above downward and from without inward. When the angle between the subclavian and internal jugular veins is reached, the base of the mass is clamped and a catgut ligature applied. I was prompted to do this by observing three deaths following operations for tuberculous glands involving the right side of the neck. I shall give a brief report of these cases:

CASE I.—Male, colored, aged thirty-one years. Lungs and heart negative. The patient stood the

anæsthetic (chloroform) and operation well. Shock slight. Two hours after the operation was completed the patient was comfortable; respiration normal; heart's action good. Three hours later the respiration was rapid and labored, but the pulse was good. Coarse moist râles were present over both lungs. The dyspnœa increased; the patient became cyanotic and died five hours after the completion of the operation. Post mortem examination showed much fluid in the lungs. Thrombi were present in some of the small pulmonary vessels. The heart and coronary arteries were normal.

CASES II AND III.—These patients were observed in the practice of physicians with whom I worked. They were adult males, operated upon for tuberculous glands of the right side of the neck. The heart and lungs in one case were negative. In the other there were evidences of a chronic process involving the left pulmonary apex. Chloroform was the anæsthetic used. No unusual symptoms were observed until about five hours after the completion of the operation. Then both patients developed symptoms of an alarming character: dyspnœa, pain in the chest, coarse moist râles over both lungs, and death approximately six hours after the operation was completed.

Why did these patients die? I do not know. It occurred to me that possibly postoperative debris had found its way into the lymphatic duct, then through the heart into the lungs, and had caused their deaths. The symptoms and post mortem findings are not contrary to this theory. No attempt was made to ligate the lymphatic duct in these cases; and the wounds were not drained.

Dissections of Separate Regions of the Neck.—Bones, muscles and fasciæ are the important guides and landmarks in dissections of the various cervical triangles. In cleaning out the submaxillary triangle it is to be remembered that there is nothing of importance superficial to the mylohyoid muscle or anterior to the posterior belly of the digastric. The body of the jaw is followed till the attachment of the mylohyoid is reached. Everything superficial to this muscle is removed. So long as the mylohyoid is not divided, and the dissection is not carried posteriorly to the posterior belly of the digastric, no harm can be done.

Carotid Triangles.—The superior and inferior carotid triangles are best cleaned by blunt dissection. The large vessels are located as described in the foregoing. The positions of the hypoglossal and laryngeal nerves have been described. I disregard all other structures in these triangles.

Parotid Gland.—The parotid gland is easily avoided. As the dissection is made from below upward the stylomandibular ligament is located. Extending upward from this ligament are two layers of fascia, one external and the other internal to the parotid gland. If these layers of fascia

are respected it is impossible to do injury either to the parotid gland or facial nerve. If enlarged glands are found within the capsule of the parotid, as is sometimes the case, they are removed by blunt dissection.

Base of Skull.—I consider the styloid process the most reliable landmark in dissecting this region. No important structures are found between the base of the skull and the outer side of the styloid process, therefore, this space can be dissected rapidly and safely. If the occipital and posterior auricular arteries are in the way, they are severed and ligated.

In removing tissue from the inner side of the styloid process I follow the advice of Hamilton, and remove the mass by twisting and traction. The facial nerve should be considered when working close to the styloid process. It is always close to the internal side of the process and is always external to the internal layer of the fascia of the parotid gland.

Occipital Triangle.—The spinal accessory nerve is the only structure of importance in this space. It has been considered in the foregoing. If the superficial branches of the cervical plexus can be preserved easily they are not severed; otherwise they are disregarded.

Subclavian Triangle.—The subclavian triangle is dissected from above downward. The layer of the prevertebral fascia covering the scaleni muscles, transversalis colli artery, suprascapular artery, phrenic nerve, pleura and subclavian vein is first located. This fascia is then carefully followed to its insertion into the clavicle behind the subclavius muscle. If the fascia is not perforated no important structures can be injured. When the angle between the subclavian and internal jugular veins is reached the base of the mass of tissue to be removed is clamped and ligated.

The Ultima Thule of Specialism.—At a meeting of physicians, one speaker was cynically deprecating the ultraspecialism of the age, in medicine and surgery. Said he: "This rage for parcelling out the human frame into special territories is passing all bounds. As it is, we have specialists for the nose, the throat, the ear, the lungs, the heart, the genitourinary organs, the rectum, the mouth, the brain, etc. It seems to me, gentlemen, that it will not be long ere the specialist, like Alexander, will have to sigh for new regions to overcome. So far as I can see, the umbilicus is about the only portion of the human body not allotted to a specialist." Whereupon a grizzled, veteran practitioner, raising his hand, exclaimed: "Doctor, you're forgetting the naval hospitals!"

REGICIDES; SANE AND INSANE.

By E. C. SPITZKA, M. D.,

NEW YORK.

(Concluded from page 407.)

One of the best propositions made by Regis, which correctly indicates the logical growth of the insane regicides project, is in conflict with this assuming of impulsiveness as an essential predisposing factor. It conflicts with it both in certain cases of truly insane regicides, and in those of sane regicides who are alleged to have been abnormal—like Louvel and Felton. It is true that the impulsive enthusiast may become a regicide, but he is precisely the person likely to be utilized by others who are in such case the real intellectual authors of the plot; he is not the regicide in Regis's meaning, but an instrument of regicides. The formula is doubly unfortunate in respect to these latter; for, as Kiernan has hinted, it is precisely among the dupes that a search for a certain class of abnormal persons is likely to be rewarded; but the *solitaire* dictum bars them out, as it almost uniformly does when the other conditions of the definition seem to be so applicable. This, again, illustrates the disadvantage of premature formularization. There being several classes of insane regicides, as well as every range of character among the sane regicides, a precise definition applicable to all of the former or all of the latter is out of the question. In one place Regis asserts the prominent part played by the Italians as regicides to be due to their tendency to mysticism and to their impulsiveness. It is notorious that the real authors of Humbert's assassination, as those of the attempt on Charles Albert of Sardinia, were not present on either occasion, but had directed these *attentats* from a safe distance. Where the impulsiveness became manifest, in their cases at least, is not clear. And if it is insisted that Regis intended this to apply to the actual assassin on the spot, and not the intellectual principal, the predicament in the case of the perpetrator becomes one of accounting for impulsiveness contrarily manifested. For Galenga, who was Mazzini's emissary in the latter case, became seized with an impulse to abandon his undertaking on coming within striking distance; and he obeyed that impulse. Cadoudal had exactly the same experience with Napoleon Bonaparte—losing the finest opportunity, from the assassins' standpoint, ever offered. Bresci and Granati, with the shot still ringing in their ears, found themselves obeying the impulse which distinguishes the "coward upon instinct," as enacted by the celebrated antagonist of the "three men in buckram."

The 34 singly-acting assassins of Italy and Spain include 20 anarchists, 8 members of "Young Italy" and the "Internationale," while 6 others were unaffiliated with secret political organizations. The irresistible impulse might be most properly claimed for assassins like that of the father who avenged the outraged honor of his daughter on the Duke of Parma. But the unhappy definition bars such cases, because they had a personal and not an ideal motive. The first exclusion brings the roster down to 28 cases. In 6 of these, the "irresistible impulse" was entirely overcome by Galenga and Pulgar, who backed out; by Paggini, who was assassinated for backing out; and by Sperandio, Pietrucci, and Scanzio, to whom the suicidal impulse proved more irresistible than the impulse to assassinate. In 5 of the 22 remaining, the "irresistible impulse" required reinforcement through the mandate and threatened alternative punishment by a secret society. To guard against a premature collapse of the impulse notwithstanding this auxiliary, reminders of the fate in store for the faint-hearted, in the shape of supernumeraries, were designated to accompany the victim of the irresistible impulse. The fact that, on various occasions, 10 such "impulse-incarnations" were captured and punished, speaks volumes.

The residual 16—for to this number the "irresistibly driven" have dwindled—did not all possess the impulse to a like degree. In 3 assassins it did not carry them to the martyrdom point, for they concealed themselves and their identity successfully; while in 6 others there was, on the contrary, such superabundance of impulse, that after the shot had been fired it took the direction of an "irresistible" tendency to run away. Only in 8 can anything approaching the orthodox article be recognized, and that of a peculiar fashion. Rubino, for example, endeavored to lie out of the predicament his shooting at Leopold of Belgium had brought him into, till he found he could not hoodwink the authorities. Then, and not till then, he changed his tone to that of champion and vindicator of anarchism. As to Luccheni, whose impulse led him to stab a defenseless woman, and an invalid at that, in the back, it was a singularly discriminating one; for if he had not selected as the scene of the dastardly act a canton where the death penalty is abolished, he would have obtained the consummation which generally remedies these impulses by abolishing their living source.

An impression of strength has been given to some of the claims of the abnormality advocates, by collating with the legitimate data which constitute their actual but frail support those facts which strongly support something else, and which have nothing to

do with the subject. In discoursing on hallucinations, for example, the dreams of Staps and Sand would scarcely bear out the formula; but when Ravallac's and Damiens's hallucinations are thrown in, into the bargain, the evidence appears respectable enough. Again, when alleging the pathological anæsthesia, it would scarcely impress the student to mention, as Regis does, Corday, Alibaud, Orsini, Staps, Sand, and Guiteau as instances of this martyr "insensibility" to pain, since the student is probably aware that not one of these regicides was tortured; but when Regis in the same breath mentions Suleyman, who was impaled, and Ravallac and Damiens, who were executed with barbaric cruelty, the impression they create is somehow swelled by the supernumeraries who have nothing in common except the deed, into an appearance of cumulative evidence.

When the proponent of the doctrine of regicide abnormality gives as his concluding and strongest reason that the regicides who survive almost invariably pass into manifest lunacy and dementia, one would naturally suppose that such a broad and conclusive statement rests on a survey of the available material—of contemporary times at least. But in vain is search made for any reference to the following magnicides who escaped capital punishment, and either died in jail or are living there to-day, if not—as 3 certainly were—discharged sane years ago:

Bereczewsky,	Luccheni,
Berkmann,	Lucchesi,
Boireau,	Lega,
Dadeshkalian,	Mirski,
Drusios,	Mlodetzki,
Gomez,	Rasmussen.
Kalnushnaya,	Romaglioni.
Kullmann,	Rudio,
Lagowski,	Salsou.

The next series is one of 16 magnicides who escaped arrest, broke jail, or were pardoned and passed through life without giving occasion to any rumors reflecting against their sanity.

<i>Assassin.</i>	<i>Person Plotted Against.</i>
Balfour of Burleigh,	Archbishop Sharpe.
Barclay, Sir George,	William III (England).
Becker, Oscar,	William I (Prussia).
Galenga,	Charles Albert (Sardinia).
Hamilton of Bothwellhaugh,	Regent Murray (Scotland).
Kelley,	Talbot (Agent of British Government).
(Croatian; name not given),	Wallenstein, Generalissimo.
Limoleon,	Bonaparte ("Rue Nicaise" affair).
Lukanski,	Stanislaus Poniatowski (King of Poland).
Mascarenhas,	Loulé (Portuguese Premier).
Maurevert,	Coligny (first attempt).
Passek,	Peter III (Czar).

Progers,	Ascham, Envoy.
Prim,	Narvaez, Premier (1843).
Riardo,	Lisle, "the Regicide."
Ribbing,	Gustav III, Sweden.

A supplementary list of 10 names is of such still living, or whose death is not authenticated to the writer's knowledge. Regarding these there is equally no evidence of mental disorder offered.

<i>Assassin.</i>	<i>Person Attacked.</i>
Bernard, Dr.,	Napoleon III (Orsini affair).
Caceres,	Heureux (President).
Chalturin,	Alexander II (Winter Palace).
Duchesne,	Bismarck (1878 plot).
Hartmann, ¹⁹	Alexander II (railway explosion).
Padlewski,	General Seliverskoff.
Ragosa,	Franz Joseph of Austria (1883).
Sassulich,	General Trepoff (1878).
Sadler of Parma,	Ferdinand Charles II of Parma.
Suarez,	Canovas, Spanish Premier.

Finally there are 5 more recent cases of assassins remaining at large or released, the observation of whom is not yet complete, but thus far militates against any presumption of insanity:

<i>Assassin.</i>	<i>Person Attacked.</i>
Baghos Kaprelian,	Armenian Patriarch, Ormanian.
Granati,	Humbert, King of Italy.
Powers,	Goebel (Kentucky).
Sipido,	Albert Edward (Prince of Wales).
Sarasow,	Michaelenescu.

Were the 5 cases cited by Regis in support of his statement admitted as properly belonging here, they would constitute $\frac{5}{54}$ ths of the aggregate they comprise with those enumerated; not fully 10 per cent. This result, in the light of what follows, shows an even more serious inadequacy of fact and formula than that which resulted from collating the data relating to the *solitaire* and martyr propositions.

Regarding the cases of Berardi, Acciarito, and La Sahla, referred to by Regis in conjunction with Passanante and Galeote, the writer cannot speak positively, but if they are enumerated on the same grounds as the last-named, then the writer can but say that they are equally and entirely out of place. Passanante's and Galeote's cases can no more prove that the regicides of the Luccheni, Caserio, Angolillo—or the Staps, Sand and Corday—type had and have a tendency to dementia or genuine insanity, than the limping of two cripples who survive a fire in a hospital, in which others who were not cripples perished, could prove that the latter victims would also have limped had the

fire not occurred. Passanante and Galeote did not and could not have become "really" or otherwise "insane after" conviction, for the simple reason that they had been, at the time of their deed and for some time before, actually and unmistakably insane already.

That 2 other political assassins did not exhibit a special tendency to dementia is the alternative of a strange *reductio ad absurdum* in the cases of Landos and Suarez. Both had served terms of imprisonment, the first for attempting the life of a Franciscan prior; the second, who is elsewhere mentioned as an accessory of Codona, Salvador, and Pallas, was on another occasion "hoist by his own petard"—that is, the bomb which Ruiz, his agent, threw at Canovas de Castillo, exploding prematurely, wounded and incapacitated him for flight; so that he was arrested and sentenced, and served a sentence of six years. Landos and Suarez both had barely been at large a few months before they were again plotting. Landos, the anticatholic fanatic, was discovered, like a second Guy Fawkes, in the vaults of the Franciscan cloister on the point of sending it and its 400 monks into eternity, having just fixed the slow match to the mine he had laid; and Suarez was betrayed by Lopez, who had been captured before obtaining an opportunity to throw Suarez's projectiles where they would do the most harm.

If Landos and Suarez engaged in their last enterprises under the dominant influence of some mental abnormality, it must have been of a peculiarly relapsing type; their mentality on the occasion of the first attempt must have been at least very similar to that which prevailed at the second. This would involve a most novel conception of the course and intensification of deteriorating states, to the adopting of which the alternative above stated seems preferable.

The Marqueses of Abrantes and Mascarenhas lived to a fairly good age in apparent mental health after returning from the banishment imposed for their assassination of Loule, the aged premier of Portugal. Caceres to-day fills a government position under the successor of that President Heureux, whom he shot dead. Powers, Orsini No. 3, Padlewski, and—the writer believes—Chalturin, are still enjoying the security of the refuge they reached through flight; while Becker, Hartmann, Kelley, and Tynan died years after their attacks respectively made on William I, Alexander II, Talbot, and Lord F. Cavendish, without having given occasion for any aspersions regarding mentality. It was many years after the prætor and chief banker of Palermo had been assassinated that Fontana, Pallizuoli, and Trapani were brought to justice (obtaining revision of their trial subsequently); but no basis for

¹⁹ Generally supposed to be deceased.

an insanity plea seems to have developed in the interim through dementia or any other mental invalidation.

Overdank furnished as clear a picture of the modern type of regicide as Caserio, Angolillo, or Staps. The same reasons for declaring these abnormal would apply to that Irridentist. Fortunately, circumstances furnished the student, anxious for degeneracy tests, with a natural control experiment, namely: There were two persons in the plot to kill the Austrian Emperor at Trieste; Austrian law hanged the one, Overdank; but his partner, who was in every respect his double, so far as contriving and attempting to execute the project was concerned, was preserved for scientific observation, through the generous verdict of his countrymen who declared Ragosa "not guilty." As it were only fair to distribute presumptions evenly in the two cases, the prospects of Overdank's not sinking into dementia, had he survived, were as good as Ragosa's; and as Ragosa did not become a dement there exists no justification for asserting Overdank to have been of the abnormal group. As the others above named presented as much or as little abnormality as he, they may be regarded in this same light, which in turn appears to illuminate the great majority of modern regicides.

Should deductions from deeds and their actors of former days be objected to, because the data relating to such are insufficient, the present day would supply cases sufficiently exemplifying the great range of possibilities in regenticidal motive to satisfy the most rigid requirements. The series these could be ranged in would, in a geographical consecutiveness, parallel what history exhibits in chronological sequence. For, what successive phases of governmental perfecting show in the career of one and the same nation, is reflected in the contemporary annals of different nations retarded in progress in lesser or in greater degree.

Thus, in Greece, where the vendetta of old prevails, the dawn of national existence was stained by murder; for a Kapodistrias-Mauromichaelis family feud was the cause of the assassination of the first minister-regent of that country. In another land, with like proclivities, a sovereign was poniarded in private revenge and with the approval of most citizens of Parma. The past twelvemonth has witnessed the shooting of a Bulgarian Minister by the vindictive subaltern, Karandjuloff, as twenty-two centuries ago witnessed in another Balkan province the like murder of the father of Alexander the Great by disgruntled Pausanias.

If, with the advance of learning, philosophers defended assassination, as Isocrates the Later did; or like Chion, the Platonian, who slew the tyrant of Heraclia, also practised as well as preached it;

the modern University had also its teachers who, like Follen, vindicated tyrannicide; and its scholars, who, like Sand and Lohning, materialized that teaching. What the Jesuit Academy inspired in Chastel, the "Katholische Gesellenverein" animated Kullmann to; for both attempted the lives of enemies of the church at a critical period.

Anarchists have avenged—or thought to avenge—comrades executed for having killed harmless visitors of theatres or for having cast bombs among members of parliament and guests of restaurants, by assassinating those chief magistrates and ministers whom they regarded as the impersonified tyranny which had sacrificed their brethren. From this to the chivalric clerk, who avenged his master by killing the perfidious robber, President of Guatemala—sacrificing his own life therein—seems a great distance. Yet even modern history furnishes a connecting link. In 1876, Hassan, a Circassian officer, one of the military party favoring the Sultan's cause, avenged the dethronement of, and suspected ²⁰ foul play against Abdul Aziz, by killing two of the conspiring ministers.

The same motives which of yore prompted assassination in momentary impulsion, have provoked the same result to-day; and singularly analogous is the converging from acquisitive greed, defensive resentment, and vindictive hate toward a common semblance of patriotic devotion of a graded series on these most discordant lines. Mehemet Ali, General Gargarin, and the journalist Bandi were assailed under like circumstances as their ancient prototypes were two chiliads ago.

If momentary emergency has driven a desperate man, threatened by an overbearing stronger one, to turn the tables, and enjoy the satisfaction of exacting retributive revenge in anticipation, as in the days of Alp Arslan, Wallenstein, and Guiscard, so a half-civilized country of our own day has seen a similar and more successful act of this kind, in the killing of the President of San Domingo by Caceres.

There have been magnicides who were such because, thinking and believing exactly as a majority of their fellowmen thought and believed, they differed from these merely in a higher integrity, in being more deeply serious, and in having the courage to translate into action what others declared or approved in words only. When ali England execrated Buckingham, as if he had been the very Satan himself; when Parliament explicitly declared him the greatest of public enemies; and Buckingham himself owed his confidence in personal security to his expressed belief that his day was too degenerate to produce a Brutus, there was an embittered

²⁰ The suspicion was correct. Abdul Aziz was assassinated by Midhat Pasha, who, with five others, was sentenced to death later for the crime. This sentence was commuted at the intercession of the Great Powers.

man who had the courage to materialize the national feeling in a dagger thrust which was applauded from one end of the land to the other. There is deep tragedy in the realization that the character of exceptional regicides has been such that, had it been shared by a few hundred of their fellow citizens, the world would have been the better for it; for the occasion of their notorious deeds had in such event not been permitted to mature. Had there been a score of Charlotte Cordays in Paris, Marat, as a power, had been an impossibility.

Sentiment to this day is moved by the tale of Staps, Lohning, and Sand, checked by no other consideration than the general impolity and perverse fruition of their deeds; and that no crime ceases to be a crime because its purpose is a pure and unselfish one. Staps felt what many in Germany felt; Sand's aim was one that impartial Chateaubriand deemed just and bound at some future day to prevail—a prophesy since fulfilled. Young Lohning, after failing in his attempt on Minister Ibell, swallowed broken glass to make sure that in the torments of a suicide's death the channel of involuntary betrayal of his partners in contriving should be closed.

What the educated and even highly cultured approved or condoned in chivalric and noble, if misguided, youths appears to the view of the proletariat no less laudable and condonable in the less refined assassin. That a large number of the so-called humbler classes regard their attitude to the affluent and governing classes very much in the light of war, is only too evident; every anarchist is a "soldier," every member of their "inner circle" is an "officer"; they have their "commander-in-chief," "general staff," and "headquarters." Just as we are rapt in astonished admiration at the deed of a Cushing or the devotion to certain death of a Pioneer Klinker, so is the forlorn hope that rushes to the certainty of the scaffold, over the conquered and prostrated standard bearer of the hated plutocratic enemy, as glorious a hero in the eyes of his brethren. The fact that, from a selfish utilitarian point of view, the devotion is an equally extravagant one in either case, as lacking in worldly wisdom in one as in the other, would place both under the same presumption of abnormality.

In this parallel it would not materially alter the first case whether the hero of a successful military achievement had been selected by his superior, accepted as a volunteer, or gone, as the saying is, "on his own hook"; so in the second, it would modify, but not alter, in a psychiatric sense, the status of the assassin, according as he had been chosen by lot, was a volunteer, or had acted on his own responsibility. This conclusion harmonizes with the observation that abnormality has been discovered in

associated actors, as in single ones, as it has been found absent in both.

Knowing the policy and practice of the anarchist's propaganda, let us take in connection therewith the following supposable case. A member of one of their groups becomes tired of life and, contemplating suicide, reveals his intent and the associated project of doing something for the cause. Is it to be supposed for an instant that the governing circle would counsel him to forego his determination? No, the chief is consulted as to where the assault by the self-devoted volunteer promises to demoralize the opposing forces most; the selection is made, the funds are subscribed and the cables soon flash the news of another anarchist assassination across the ocean. The skirmisher may, however, change his mind and surrender to the authorities or commit suicide without preliminary or ceremony on the way, as Scanzio did.

Something remains to be said as to the presumption of unsoundness as based on the unreasonable character of the act itself in another class of regicides. The number of persons interested in, and approving of, the assassination of William the Silent was sufficiently great to have provided a large-sized asylum with inmates, not forgetting as star-boarder the King of Spain, who had offered a premium for the deed, and on its successful accomplishment bestowed an estate and a title of nobility on Gerard's family. Since Gerard's insanity is alleged on the ground of the absurdity of his project, one is reduced to the alternative of assuming the above-mentioned persons to have been engaged in a conspiracy to disprove his insanity by showing his project to have been a realizable, and hence a reasonable, one.

Like Balthazar Gerard's, has the aim of the perpetrator of our last national tragedy been realized, and to its fullest extent. His ambition soared no higher than to be recognized as a hero by his sect. After his deed, mass-meetings glorifying him as a martyr were held, and his picture was to be found—probably is to-day to be found—side by side with Ravachol's, Reinsdorf's, Caserio's, and other heroes of anarchism, in every assembly-room where its followers meet. Are these latter also leagued in a conspiracy to vindicate for an insane delusion the false character of a sane idea by a pretended indorsement?

The abnormality advocates have gone so far as to declare Czolgosz's claim of being an anarchist an insane delusion. They base this on the denial by those anarchists whom Czolgosz notoriously had come in contact with, that he had been in any way affiliated with them, or that they had any knowledge of his intent.

Up to this moment, a long list of regicides alleged to have been abnormal under a definition

which predicates delusional insanity, have been examined by the writer without revealing insane delusions in any single case. But here, at length, patience is rewarded, and it is this Czolgosz case which brings a real, indisputable delusion to the surface. A belief that, under any circumstances short of delirious confusion, the anarchists would put their necks in jeopardy by admitting affiliation with, or knowledge of the design of Czolgosz, is unquestionably a delusion of the first quality. It turns out, however, after all not to bear on the regicide mentality; for it was not Czolgosz who entertained this idea.

We all of us have known the boy whom it was only necessary to tell of a performance as impossible, to insure his attempting it; we have known a few whom the words "you dare not" would plunge into the most desperate Quixotic difficulties; and we were perhaps ourselves of a much larger number who did many things against a better judgment rather than be ridiculed and endure opprobrium being cast on the complexion of our livers. In some, this trait of the boy prevails in adolescence and may extend into manhood, and much that seems strange in the conduct of young regicides therein finds its natural explanation. Often the first attitude of the assassin is expressive of saying: "Didn't I tell you I'd do it?"—"Who'll call me coward now?"—"I've shown myself a man," or "I'd like to see the fellow who'd dare as much."

The crafty and designing leaders whose occupation dooms them to follow the devious channels of petty intrigue and to engineer frivolous enterprises for the sake of appearances, find those of this disposition dupes fitted to undertake the dangerous rôle in the latter. A favorite device is the playing off of two ambitious youths against each other, until, under the stimulus of insinuation, emulation, and vanity, the more choleric and sanguine outbids the rival.²¹

If the question is asked, What possible motive impels the leaders in these conspiracies to their random and mischievous course? the answer need not go further than the libeller's apology, "*Il faut vivre*," nor need a rejoinder go beyond Richelieu's retort. The sense of power and the playing a prominent rôle are enjoyable to many men, good and bad. If they are of the bad sort, and that power can be wielded in working mischief, it only adds zest to their enjoyment. It would not be difficult to discover the same disposition, which marks the worst type of the terrorist, at the opposite extreme of the social scale in rapacious promoters, whose chief

pleasure in scheming and consolidating is to exclude and humiliate others; and whose real sentiment toward their fellowmen is a strange hatred, perhaps veiled under a sanctimonious affectation. To regard either class as morbid would involve so regarding the other, and the door of admission to the domain of degeneracy would thus be opened wide enough to admit all mankind.

In conclusion, permit me to cite an instance showing the need of caution in receiving first impressions. After Caserio had laid down his life to avenge Ravachol, Vaillant, and other bomb-throwers, another anarchist avenged Caserio's memory by poniarding an Italian writer who had aspersed it. How touchingly this endless chain of brotherhood champions impressed romantic temperaments may be imagined.

But a shrewd medical jurist took the trouble which Dr. Channing did not take with regard to the *Peruna Almanac*. He looked up the victim's article, and was surprised to find nothing in it of the provocative quality which had been asserted. Further research revealed the following: The assassin Lucchesi had been guilty of another homicide, years previously. His counsel, in defending him, utilized the Lombroso degeneracy doctrine, which, at that time, carried everything before it; as fads commonly do. However, Bandi, an eminent writer at Leghorn, where the trial occurred, wrote an editorial on the Lombroso doctrine, exposing its logical defect and its general shallowness. The article was so concise and convincing that the public prosecutor found it unnecessary, in his concluding address to the jury, in rebutting the degeneracy plea, to do more than read it to the jury. The effect on them was manifest in an expeditiously rendered verdict of "guilty."

Lucchesi regarded the editor, Bandi, as the sole cause of his conviction; he waited years to glut his vengeance, and when, finally having served his term, it happened that an article emanating from Bandi's pen expressed regret that discredit had been again cast on the name of Italians by an assassin, Lucchesi found the propitious occasion and pretext for driving his dagger as straight through the chest of Bandi as Caserio had driven his through Carnot's.²²

How often may a generous ideal announced by the assassin cover the vulgar vindictiveness of a commonplace murderer, as in this case.

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²¹ A source of danger to the cause lies in the possible vindictiveness of the one to whom a competitor has been preferred. The opportunity to provide a fiasco for that hated competitor by a timely hint to the authorities may appear more tempting than the interests of any "ideal cause."

²² It happened that the wounds in both cases showed a remarkable coincidence in direction, depth, and the organs perforated.

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HAY FEVER: A CAUSE AND A CURE.

By FRANK E. STOWELL, M. D., C. M.,

WORCESTER, MASS.

I feel like offering some explanation for writing this paper, as it may seem, prematurely. I have written it at the present time for several reasons. In the first place to have the treatment I suggest thoroughly tested, and because if it is not done at once it will be necessary to wait for another summer when the disease returns. Secondly, if the cause I shall give is not *the* cause, I feel sure it is *a* cause, and I am anxious to find in what percentage of cases it is a factor. As it may be tried, I shall be glad to get reports of its success or its failure, and thus be able to determine its value.

Much has been said and written on the cause of hay fever. The rose, the rag weed, and hay have been blamed for it. That there is a neurotic condition of the nervous system is doubtless true, whatever the exciting cause. But whether some of the rather vague pathological conditions discovered in the nasal mucosa allow the above exciting causes to act, or whether there is another cause is what I desire to settle in general, as I have in my own case. Having been for several years a sufferer, I have carefully observed my case. This summer it occurred to me, from the paroxysmal character of the outbursts and from the fact that they were often absent under seemingly similar conditions to those under which they occurred; that it was a disease of the nervous system, and also that it was not due to some irritant deposited in the nasal mucosa. I then began to search for some factor which was present at this time of the year and absent at other times. The rays of the sun are just now the strongest. There are more actinic rays than at any other season. It occurred to me that they might be the exciting cause, and that the condition was a reflex set up through the eye. When we remember how the ciliary nerves are, through the lenticular ganglion, connected with the nasal as it emerges from the Gasserian ganglion we see that such a theory has a good anatomical basis. It may also be connected by the Gasserian ganglion with the other branches of the trifacial nerve.

Without discussing several points which tend to prove the above condition to exist, I will go at once to the treatment which proves that, in some cases at least, the above is the cause. The treatment is simple, namely, the wearing of

smoked glasses. In my case especially it gave instant relief after I had suffered several days, and moreover the condition returned if I went out in the sun without the glasses, only to be relieved again by putting them on. I have only been able to try it on one or two others, but have obtained some relief in each instance.

I shall be very glad if it is tried more or less widely and the results sent to me. A point about fitting the glasses. The patient should feel a sensation of relaxation come over his face as soon as he looks through the glasses. And I would suggest that the shade of glass used be such as to produce the above. In my case a No. 3 was sufficiently dark.

As this article appears rather later than I expected, I may add that the paper refers more especially to the early summer type of the disease; but I shall be glad to find whether the form occurring later in the season responds equally well, and next season to hear concerning the early summer type.

CELLULOID AS A MATERIAL FOR FLAT FOOT PLATES.

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In the making of supports for flat foot a great many different materials have been used, some of which have been immediately discarded as unsatisfactory, after a trial, while others, like steel, have stood the test of time and are deservedly popular. Sheet celluloid has recently been employed as a support for flat foot by a few orthopædists, but the literature contains little concerning its advantages or disadvantages.

This paper contains the result of my observations on a limited number of cases of flat foot, less than fifty, which have been treated with celluloid plates, but the number has been large enough and the variety great enough, I think, to form a justifiable basis for my conclusions. At the outset, it cannot be denied that if sheet celluloid could be made to do the same work that steel does in serving as a support for the foot, it would be an ideal material to use, for it can be moulded on a plaster cast to any desired shape in a few minutes by the use of boiling water, besides having the advantages of being light, cheap, and non-corroding. Unfortunately, however, it does not possess two very important advantages that steel has, namely, rigidity and durability; and this fact, I think, effectually limits its use to certain cases.

Before discussing its adaptability to these cases, it is necessary to consider briefly something of the

mechanics of celluloid and also to say a word as to its manipulation. Sheet celluloid, as it is obtained from the manufacturers, is smooth, of uniform thickness, averaging one eighth of an inch in thickness and is tough and springy. It is easily cut with metal shears into the shape of plate desired and after being immersed in boiling water for a few moments becomes pliable, so that it may be easily moulded on a cast of the foot, which has been shaved, to restore the arch. In one or two minutes it becomes as hard as at first and the plate is ready for use, or it may be covered with leather if desired.

In studying the mechanics of the plate, I have found that it will not support properly the longitudinally flattened arch in an adult unless a very heavy grade of celluloid is used (in which case the thickness of the plate is a decided objection, since it takes up so much room in the shoe), or unless it is made with both an inside and an outside flange, running the whole length of the plate. These flanges will support the arch of the plate, but are clumsy; and, moreover, the outer one causes pain by pressing upon the fifth metatarsal. Also, the use of several small flanges to correct valgus and eversion of the forefoot, by pressure and counter pressure, such as are practicable in a steel plate, is impossible with the celluloid.

In a beginning flat foot, where a springy plate is desired, or in a very mild degree of flatfoot where a slight support only is needed, or in children of light weight, it is possible to use this plate in supporting the longitudinal arch, but in all other cases its use in my hands has been disappointing. In cases of flattened transverse arch, in the so-called Morton's disease, its use in some instances has proved very gratifying, especially as most of these cases occur in nervous women who appreciate a light plate. Here, the plate conforms to a comparatively narrow hollow, which is scooped out of the cast beneath the heads of the metatarsals; and the curve being sharp instead of long and sweeping, it does not flatten beneath the weight of the body, but supports the transverse arch satisfactorily.

The durability of the plate is next to be considered; and here, paradoxical as it may seem, I have found that celluloid may be, in some instances, more durable than steel. Patients occasionally wear these plates for an indefinite period without breaking them; at least a year, in more than one instance, to my knowledge. Often, on the other hand, they will break after a day or two of wear, and have to be renewed, only to break again.

My conclusions in regard to celluloid as a material for flatfoot supports are that it is cheap, easily made and altered, light, and by its mechanical properties, adapted to occasional and selected cases of flatfoot, but that its limitations and its unreliability render it far inferior to steel for general use.

A CASE OF ATROPINE POISONING:

FROM THE SERVICE OF DR. H. A. FAIRBAIRN.

By C. B. CORTRIGHT, M. D.,
NEW YORK,

HOUSE PHYSICIAN TO ST. JOHN'S HOSPITAL, BROOKLYN.

Harry T., aged eight years and a half, swallowed two grains of atropine sulphate, at 4 p. m., July 7th. I saw him at 4.25 p. m. At that time he had the following symptoms: Scarlet rash over the face, chest, and abdomen; dilated pupils; very rapid pulse; rapid and deep respiration; dry skin; fibrillary twitching of skeletal muscles; he was profoundly unconscious; there were slight spasms around mouth and tongue.

Treatment: Morphine sulphate, one quarter of a grain. The stomach was washed out with saline infusion at 110° F., until the fluid returned clear. The washing was repeated five times.

High saline enemata of four pints each, at 110° F., were given every two hours, the amount being gradually diminished, because the enemata were expelled. Two drachms of magnesium sulphate were added to each enema. He was catheterized, and given strychnine sulphate, one three hundredth of a grain, every three hours, and was surrounded with hot blankets and hot water cans. Iced compresses were applied to the head.

The last saline enema was given at 6 a. m., at which time the secretions became reestablished. The last dose of strychnine was given at 2 a. m., the pulse having a normal tone, but being still rapid. The urine was not retained. The following is a tabular statement of his temperature, pulse, and respiration:

	TEMP.	PULSE.	RESP.
5.30	99.02° F.	145	30
7.30	103.03° F.	130	33
12	101.03° F.	135	24
4	100.03° F.	108	36
8	99.03° F.	80	20

The Annex to the Georgetown University Hospital, Georgetown, D. C., is rapidly nearing completion, and, under the terms of the contract, it will be ready for occupancy October 1st next. The new building contains an etherizing room, a sterilizing room, an operating room, twenty-four private wards and six public wards. Although nothing definite has been agreed upon, it is understood that the new building will be formally opened Thanksgiving Day with appropriate ceremonies. The sisters in charge are now at work framing a programme for the occasion. That the annex will prove a valuable addition cannot be questioned, and it will greatly relieve the congestion that has been experienced at the institution during the past year and will enable the sisters to cope with the increasing demands. The new building is modern in every respect, and, it is said, will be equipped with every appliance known to medical science.

Therapeutical Notes.

Exfoliative Paste.—Unna's prescription, as given in *Revue française de médecine et de chirurgie* for July 27th, is as follows:

- R Benzoated lard.....28 grammes (7 drachms);
Zinc oxide.....10 grammes (2½ drachms);
Fuller's earth.....2 grammes (30 grains);
Resorcine.....40 grammes (10 drachms).
M. For an ointment.

Localized Pruritus.—Hofmeister (*Revue française de médecine et de chirurgie*, July 27th) advises the following:

- R Potassium bromide } of each.....2 grammes
Lupulin } (30 grains);
Calomel20 grammes (5 drachms);
Olive oil.....10 grammes (2½ drachms).
M. Shake before using.

Pruriginous Eczema of the Ear.—*Tribune médicale*, August 1st, warns against wet applications and advises the following.

- R Vaseline20 grammes (5 drachms);
Starch } of each...10 grammes (2½ drachms);
Zinc oxide }
Salicylic acid.....50 centigrammes (7½ grains).
M. For an ointment (Lassar's paste).

- R Vaseline10 grammes (2½ drachms);
Oil of cade.....1 gramme (15 minims).
M. For an ointment.

- R Vaseline } of each....15 grammes (3¾ drachms);
Lanolin }
Yellow oxide of mercury....1 gramme (15 grains).
M. Ointment.

Pruritus of Icterus.—Leichtenstein advises the following formula (*Tribune médicale*, August 1st):

- R Menthol } of each.....5 grammes (75 grains);
Zinc oxide }
Starch } of each.....30 grammes (1 ounce).
Talc }
M. For a powder.

Pruritus of Urticaria.—*Tribune médicale*, August 1st, states that the following formula is useful:

- R Chloral (hydrate ?) } of each.....4 grammes
Camphor } (1 drachm);
Starch40 grammes (10 drachms).
M. For a powder.

Pruritus of Vulva.—A. Robin and Dalché (*Tribune médicale*, August 1st) give four formulæ for ointments as valuable in this condition:

- R Chloroform8 grammes (2 drachms);
Sweet almond oil.....60 grammes (2 ounces).
M.

- R Mercury bichloride } of each.....15 centigrammes
Sal ammoniac } (2¼ grains);
Emulsion of bitter almonds.....200 grammes
(6¾ ounces).
M.

- R Orthoform }
Diiodoform } of each.....equal parts.
Talc }
M.

- R Menthol5 centigrammes (¾ grain);
Guaiacol50 centigrammes (7½ grains);
Zinc oxide.....10 grammes (150 grains);
Vaseline30 grammes (1 ounce).
M.

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NEW YORK, SATURDAY SEPTEMBER, 5, 1903.

OUR PRECAUTIONS AGAINST THE IMPORTATION OF TUBERCULOUS CATTLE.

The vigilant chief of our Bureau of Animal Industry, Dr. Salmon, has recently made a report entitled *The Tuberculin Test of Cattle in Great Britain*. The United Kingdom is the source of most of our imported thoroughbred cattle, and it is manifest from the report that during the last few years the bureau's scrutiny has saved us from importing many a diseased animal. Since December 1, 1900, the tuberculin test has been applied in Great Britain by a medical officer of the bureau. The Canadian Government has also had an inspector charged with the same kind of work in Great Britain, and an arrangement was made between the United States and Canada for each Government to accept the certificates of the other's inspector. It would appear, however, that it is not perfectly safe to rely solely on testing the cattle before they are shipped, for Dr. Salmon states that there has been evidence sufficient to cause a strong suspicion that in some instances fraudulent means were being used for the purpose of defeating the test in diseased herds, such as injecting tuberculin in advance of the official test, so as to prevent a reaction, or administering drugs to resist a rise of temperature.

But it is not the British exporter alone who has opposed the bureau's regulations or sought to baffle its vigilance. The principal opposition at home, according to the report, has come from

comparatively few persons interested in the importation and sale of breeding stock. "Some have even been dissatisfied because they were not permitted to import animals which had reacted to the test or which came from herds known to be badly diseased." Of course, they did not desire to introduce diseased cattle into their own herds; they were simply out-and-out tradesmen, and it was their purpose to buy diseased animals cheap in Great Britain and sell them at a profit to their own countrymen, our countrymen. We quite agree with Dr. Salmon when he says that the facts shown in his tables are sufficient to demonstrate to any fair-minded person that the bureau's regulations are not unreasonable or unduly severe, but are necessary for the protection of the herds of the United States. The cattle of Great Britain seem to be contaminated with tuberculous disease to a very dangerous degree. Whereas cattle bred in the Channel Islands are practically free from the disease, they readily contract it in many instances after they have been taken to Great Britain. It is plain that we cannot afford to relax our vigilance in the matter of excluding diseased cattle.

CHLOROFORMED VACCINE.

Those who favor the use of vaccine "pulp" (meaning the white pultaceous mass formed on the floor of a pock by the necrosed tips of the cutaneous papillæ, together with more or less broken down epidermis) must at least regret that the glycerinating process takes several weeks to exert the action "whereby the extraneous bacteria are eliminated" "while the specific germ undergoes no undue deterioration." These words, which express in a general way the *modus operandi* of the glycerinating process, are taken from a Preliminary Note on the Use of Chloroform in the Preparation of Vaccine, by Dr. Alan B. Green, of the British Government Lymph Laboratories, published in the July 8th number of the *Proceedings of the Royal Society*. Dr. Green has found that a saturated solution of chloroform in distilled water, one part of chloroform to 200 parts of water, produces the same effect in from an hour to six hours. We quote the following description of the process which, Dr. Green says, has thus far given the best results:

Vaccine emulsion is first prepared by triturating vaccine pulp with distilled water. *The presence of the water is essential* in order that later chloroform may enter into solution with it. About three parts by weight of water should be mixed with one part by weight of pulp. Should a more viscid emulsion of vaccine be desired, glycerin may be added without interfering with the action of the chloroform. I have found that the usual admixture of one part by weight of vaccine pulp and four parts by weight of a solution consisting of equal parts by weight of glycerin and water forms a perfectly suitable emulsion for this process. But glycerin is incapable of dissolving chloroform, and the elimination of extraneous bacteria by this chloroform process is solely due to the action of chloroform water. Indeed, when addition of glycerin to the vaccine emulsion is desired, it can be very advantageously effected after the completion of this process.

The newly made vaccine emulsion, to be subjected to the action of chloroform, is dealt with in the following way: Sterile air is first passed through pure liquid chloroform, whereby this air becomes charged with chloroform vapor. This mixture of air and chloroform vapor is then passed through the vaccine emulsion, which is contained in a cylindrical glass vessel of test tube shape, and in size suitable to the quantity of vaccine to be treated. The mixed chloroform vapor and air can be passed seriatim through a number of tubes of vaccine before it finally escapes into the outside air, and it is efficient for all of them, provided that the current be sufficiently strong to keep the contents of each tube in active movement, and that a distinct smell of chloroform be apparent at the outlet of the last tube of the series.

It is essential that no liquid chloroform be allowed to pass over into the vaccine, as its presence is strongly inimical to the potency of the lymph. To obviate the chance of such an accident, an overflow bottle, weighted with sterile sand, is interposed between the bottle of liquid chloroform and the tube or tubes of vaccine emulsion. By passage through it of chloroform vapor and air the water of the vaccine emulsion quickly becomes saturated with chloroform, and this strength of solution is maintained so long as such passage is continued. When saturation is reached, all excess of chloroform immediately escapes automatically from the vaccine. Thus the vaccine is not at any time brought into contact with a stronger solution of chloroform than 1 in 200 in water.

This chloroform process, though apparently rather complicated, certainly promises some distinct advantages in the reclamation of pulp vaccine, not the least of which is the saving of time, in which, as Dr. Green admits, certain specimens of vaccine may undergo a waning of potency, in spite of the contention that the specific germ suffers "no undue deterioration" from the glycerinizing process.

THE CONTAMINATION OF ILLUMINATING GAS WITH SULPHUR.

Dr. John S. Haldane, lecturer in physiology in the University of Oxford and one of the associate editors of the *Journal of Hygiene*, contributes to the July number of that journal an article entitled

The Relation of Sulphur in Lighting Gas to Air Vitiating. He remarks at the outset that it is a matter of common observation that air which is much vitiated by the combustion of illuminating gas is distinctly oppressive apart altogether from the rise of temperature which is always associated with the vitiation. This effect, he says, is always very evident if the proportion of carbon dioxide in the air of a room has been raised to thirty or forty volumes to 10,000 by the combustion of gas. But he makes this significant additional statement: "Air to which pure carbonic acid has been added in the same proportion has no such effect, however, and is practically indistinguishable from pure air. Deficiency of oxygen to such an extent as occurs in the air of a room is also without sensible effect."

The occasional unpleasantness of the air of a room lighted with gas, according to the author, is largely due to the presence of sulphur compounds, chiefly sulphur dioxide, but also to some extent sulphuric acid in a particulate form. He had been informed by the manager of a weaving shed in a small country town that sometimes a fog had occurred in the shed when the gas was lighted, and at the same time the air became most unpleasant and irritating. This, he says, was clearly due to the purification of the gas being occasionally worse than usual, so that a considerable proportion of hydrogen sulphide passed through the purifiers. "The quantity of sulphuric acid formed was thus so great that, although the ventilation was especially good, the air of the shed became foggy from the condensation of moisture on minute drops of sulphuric acid in the air. As for hydrogen sulphide, commonly called sulphureted hydrogen, it is easily removed from the gas by the action of quick lime, hydrated oxide of iron, or manganese dioxide ("Weldon mud")." "When," he adds, "as is usually the case in England and America, the carbon disulphide is also removed, this is effected by passing the gas through a purifier charged with sulphide of lime, which has the property of absorbing carbon disulphide." Evidently sulphur is an important element in the vitiation of the air of a room by the combustion of illuminating gas.

THE STERILIZATION OF BOOKS.

Perhaps there is no branch of human knowledge that is of such great practical utility to civilized society at the present day as preventive medicine. It is far more effective, and very often a much easier problem, to prevent the occurrence of a disease than to cure it after it has once secured its hold. This in an era of the multiplication of public libraries and of the readers of library books. It is an omen of splendid significance for the future that knowledge, at least in our country, is becoming so widely diffused through the medium of public libraries, and one cannot mention the subject without a tribute of praise and admiration to Mr. Andrew Carnegie.

The circulation of a vast number of books means the entrance of many of them into homes and other places where infectious disease is present. Many people do not realize that it is possible for the germs of disease to attach themselves to books, or they are careless, and books are taken into the sick room and may be kept there for days. Then they are returned to the circulating library from which they were taken, or they are lent to a neighbor, the germs which were attached to them are liberated, and the vicious circle is completed by the development of the disease in other individuals. This is not theory; it is observed fact. There is positive evidence that scarlet fever has thus been propagated. In the office of a certain municipal government one of the bookkeepers became the victim of pulmonary tuberculous disease. On his retirement, the charge of the books was taken by one who was apparently in good health. In a short time he was seized with pulmonary tuberculous disease and died, and then a third man went through the same experience. This rather striking series of events induced someone to have cultures made from the scrapings of the leaves of the books which had been under the care of these three individuals, and an abundance of tubercle bacilli was revealed by the investigation. Is it not probable that similar experiences could be narrated in connection with library books which are constantly being introduced into the apartments of those who are confined to the house for long periods with this highly infectious disease?

A series of experiments made under careful direction upon a large number of library books revealed the fact that not one of them was free from

germs, though in this instance not one of the germs was that of a deadly disease. The importance of the subject seemed so great that an apparatus was devised which, after various severe tests, was brought to such a state of efficiency that germs deposited on the covers, on the edges, on the middle of the pages, and even on the back of the pages, where the leaves are closest together, were destroyed, the germicidal agent being formaldehyde. The usefulness of such a method of procedure should appeal strongly to physicians. That it also appeals to laymen is certain, since it is known that at the library in which the apparatus in question is in practical use many who previously would not avail themselves of the library books for fear of infection now make use of them, having the assurance that no harm from such a source can arise. Particularly with such diseases as have been mentioned, and the diseases in which desquamation is an invariable symptom, should a precaution of this character be observed. ANDREW F. CURRIER.

A BROTHER PRACTITIONER'S NEED.

Misfortunes beyond our control come at times to all of us, and particularly is that the case when they take the form of sickness. In the medical profession, perhaps, more than in any other, are men exposed to a general overwhelming from the incidence of sickness. The merchant's business does not necessarily come to a full stop as the consequence of protracted illness, however much it may be hampered thereby, for much of its detail can be carried on by clerks and others. Even the lawyer and other professional men have much of their work done by deputy. The physician, however, who is placed *hors de combat* by protracted illness, and that not only of himself, but of several members of his family simultaneously, stands a fair chance of meeting complete financial ruin. His work is entirely personal, and with too many of us health and hard work serve to produce only a moderate living, and no superfluity at best. It is, therefore, with sympathetic regret that we notice and repeat the appeal by the editors of the *Alkaloidal Clinic*, and the *Pacific Medical Journal*, on behalf of Dr. W. S. Randolph, of Pine Valley, Texas. Dr. Randolph has had a long spell of grippe complicated with diabetes, which has rendered him unfit for practice for some time past. Further, his only son has had tuberculosis for three years in a subacute form and has been unable to do anything. One of his daughters has organic heart disease and is also unable to work.

Another has had severe malarial fever, which has left her a mental wreck, while his wife is an invalid from uterine disease. Under these circumstances it is not to be wondered at that our confrère has seen swept away everything he possessed, and is left entirely penniless. In reply to enquiries, Mr. D. L. Hill, the postmaster of Pine Valley, vouches for the accuracy of these statements. The profession which does more gratuitous work in the interests of humanity than any other we feel sure will never withhold its aid from a professional brother in dire distress through misfortunes which it was beyond his power to control. We trust that our readers will take note of our unfortunate brother's condition, and send him such aid as their individual means warrant.

ANOTHER "SUNSET" SCHOOL.

In England and in the Province of Ontario, Canada, the course of study to admit to the practice of medicine extends over five sessions of nine months each; the Province of Quebec is shortly to follow suit. All our better schools insist upon four sessions of nine months, and we are safe in saying that each day of the nine months demands from seven to nine hours' work. When a student has complied with these requirements, a term of service as interne in a large hospital and several years' practice develop in him appreciation of his limitations and an ambition to do away with them. In the face of these facts, we must view with strong disapproval the recent foundation of a medical school in Chicago designed to qualify young men who are employed during the day. A very superficial training is all that can be expected of such an institution, and its graduates are not likely to be either ornamental to the medical profession or valuable to the lay public.

CLEANLINESS IN THE BARBER SHOP.

The barbers of New York, although some of them may be considered rather too talkative, are for the most part an amiable and well-intentioned set of men. We wonder, therefore, at the vigor with which they are protesting against the enforcement of certain rules lately formed by the Health Department for the purpose of preventing the risk of their contaminating their customers with disease. We see nothing in the regulations that is calculated to put any hardship on the barbers. For the most part the requirements are such as common decency would require, to say nothing of the danger of transmitting contagious diseases.

FORWARD SUBLUXATION OF THE HEAD OF THE RADIUS IN CHILDREN.

We think it will not greatly astonish American surgeons to find that Broca (*Gazette des hôpitaux*, 1903, No. 56; *Zentralblatt für chirurgie*, July 25th) ascribes the "painful proneness of young children" to this form of displacement in an overwhelming majority of instances. The frequency of the trouble is illustrated by the fact that the author observed it 208 times in the course of nine years.

MALARIAL BONE DISEASE.

Disease of bone as a result of malarial poisoning must be exceedingly rare. Toussaint (*Archives de médecine expérimentale*, etc., 1903, No. 1; *Zentralblatt für innere Medizin*, July 25th) has observed only two cases among 5,000 malarial patients. In a case described by him it came on at the end of a year and a half from the infection. The bones of the fingers were particularly affected. New formation of bone took place in the shafts, and there was no suppuration. The trouble seemed to be connected with peripheral polyneuritis.

SUPERSENSITIVENESS OF THE NAILS.

The condition described by Oppenheim (*Monatsschrift für Psychiatrie und Neurologie*, 1903; *Berliner klinische Wochenschrift*, June 22d) as hyperæsthesia unguium is probably an oversensitiveness of the bed of the nail rather than of the nail itself, and so he seems to imply. He has observed two congenital cases, also a third instance in which the peculiarity followed an injury in an hysterical person. He avers that in some individuals the sensitiveness is so acute that it is painful for them to wear gloves.

Obituary.

Dr. Alexander Montague Atherton died at Liberty, New York, August 28th, in his twenty-ninth year. Dr. Atherton was born in Honolulu, H. I. He prepared for college at Pimaho Academy, Honolulu, and afterwards graduated from Wesleyan University, at Middletown, Conn. Later he studied medicine and obtained his degree at the Johns Hopkins University in 1901. He won a service in the City Hospital, Blackwell's Island, New York, where during his internship his health began to fail. Dr. Atherton recently married Miss Eleanor Louise Baker, of Providence, R. I., and leaves, besides his widow, his mother, Mrs. Joseph Ballard Atherton, two sisters, and two brothers, all of Honolulu.

News Items.

Society Meetings for the Coming Week:

MONDAY, September 7th.—New York Academy of Sciences (Section in Biology); Morrisania Medical Society, New York (private); Brooklyn Anatomical and Surgical Society (private); Corning, N. Y., Academy of Medicine; Utica, N. Y., Medical Library Association; St. Albans, Vt., Medical Association; Providence, R. I., Medical Association; Hartford, Conn., Medical Society; Chicago Medical Society.

TUESDAY, September 8th.—New York Academy of Medicine (Section in Genitourinary Surgery); New York Medical Union (private); Buffalo Academy of Medicine (Section in Medicine); Rome, N. Y., Medical Society; Medical Society of the County of Rensselaer, N. Y.; Newark, N. J., Medical Association (private); Trenton, N. J., Medical Association; Clinical Society of the Elizabeth, N. J., General Hospital and Dispensary; Northwestern Medical Society of Philadelphia; Practitioners' Club, Richmond, Ky.; Richmond, Va., Academy of Medicine and Surgery.

WEDNESDAY, September 9th.—New York Pathological Society; American Microscopical Society of the City of New York; Society of the Alumni of the City (Charity) Hospital; Philadelphia County Medical Society; Lenox Medical and Surgical Society (private).

THURSDAY, September 10th.—New York Academy of Medicine (Section in Pædiatrics); New York Academy of Medicine (Section in Otology); Society of Medical Jurisprudence and State Medicine, New York; Brooklyn Pathological Society; Medical Society of the County of Cayuga, N. Y.; South Boston, Mass., Medical Club (private); Pathological Society of Philadelphia; Church Hill Medical Society, of Richmond, Va.

FRIDAY, September 11th.—Yorkville Medical Association, New York (private); German Medical Society of Brooklyn; Medical Society of the Town of Saugerties, N. Y.

Change of Address.—Dr. E. Lee Jones, from Cuba, Tex., to Alvarado, Tex.

NEW YORK, CITY AND STATE

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of cases and deaths reported for the two weeks ending August 29, 1903:

DISEASES.	Week end'g Aug. 22.		Week end'g Aug. 29.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	117	3	105	3
Diphtheria and Croup....	296	24	214	27
Scarlet fever.....	104	4	90	6
Smallpox	0	0	0	0
Chickenpox	12	0	13	0
Tuberculosis	271	141	256	135
Typhoid fever.....	109	19	136	16
Cerebrospinal meningitis..	0	6	..	5

Binghamton State Hospital.—John L. McKelway, of Binghamton, has been appointed superintendent of this institution.

The Appointment of Medical Emigrant Inspector for the port of entry at Malone, N. Y., has been received by S. D. Williamson, a graduate of the medical department of the Syracuse University.

Money for Board of Health.—The estimate of the Board of Health of the City of New York for money required for 1904 was presented by Acting Mayor Fornes on August 27th. It calls for \$1,631,500, an increase of \$583,778.52 over last year's appropriation. Among the new items are \$49,550 for disinfection, \$158,250 for hospital fund, \$24,800 for ambulance service, and \$30,600 for laboratory fund.

Manhattan State Hospital, West.—On Labor Day, September 7th, there will be a grand programme of sports rendered by the patients and attendants of Manhattan State Hospital, West. The contests will begin promptly at 2.30 p. m. on the grounds of the institution. There will be music by the hospital orchestra. Among the events scheduled, are a fifty yards dash by the women patients, a three legged race by the men, an egg race by the women, basket ball by patients, a sack race, a shoe hunt, a wheelbarrow race, a potato race, tether ball contest, bowling on the green, bucket race, golfette, barrel rolling contest, tug-of-war by women patients, nail driving contest by women employees, tug-of-war by men patients, and a cake walk.

Governor Odell on Hospitals.—Extravagant buildings, useless high salaried officials, add nothing to the efficiency of treatment in our hospitals, nor secure a more efficient administration of our State departments. Such a misuse of public money is extravagance deserving of condemnation. On the other hand, the decent housing of the State's wards, their care and treatment, and insistence that private greed shall not be permitted to deprive the tenement house population of our great cities of perfect sanitation, pure air and sunlight, are economies no matter at what cost they may be secured. Decent homes reduce the number of immoral and physically incapacitated people, and by adding to the number of our useful men and women enable us to elevate humanity.

Buffalo Emergency Hospital.—Urgent appeals are being made by this institution, which is conducted by the Sisters of Charity, for contributions to enable its valuable work to be properly carried on. The hospital receives no State or municipal aid, and the expenses of the dispensary, ambulance service, and the table are particularly large. The staff during 1902 comprised the following physicians and surgeons: F. J. Carr and the late Clayton M. Daniels, Vertner Kenerson, surgeons; J. H. Carr, and E. L. Bebee, assistants; J. H. Pryor, L. Bradley Dorr, and Joseph Burke, physicians; Henry Y. Grant, and Benjamin H. Grove, ophthalmic surgeons; W. Scott Renner, Edgar A. Forsyth, ear, nose, and throat; James A. Gardner, Nelson W. Wilson, genitourinary; Ernest Wende, dermatologist; William C. Krauss, neurologist; John A. Miller, chemist; Frederick Zingsheim, assistant ear, nose, and throat; Herman K. DeGroat, assistant to the dermatologist. During the year the number of patients admitted to the hospital was 1,190. Of that number 1,038 were discharged and one hundred died. The number of patients who were treated without fee was three hundred and thirty, those who paid part of the fees were six hundred and thirty and those who settled in full were two hundred and thirty-five. The total number of cases treated in the dispensary was 2,479, and the total number of old cases treated in the dispensary was 9,688. The total number of consultations was 12,167. The occupations of patients cover every range of human endeavor from hod carrier to detective and from bootblack to clergyman.

Three Brooklyn Doctors in Peril.—J. J. O'Connell, J. M. Walsh, and W. J. Glynn, of Brooklyn, had a narrow escape from drowning in Shinnecock Bay on Sunday, August 30th. This is their second escape, the first having occurred in the same place last July. Inexperience in handling a sailboat seems to have been the source of the trouble. George R. Bellows, of the hotel of that name, was the rescuer this time.

Health Rules for New York Barbers.—Dr. Lederle, of the board of health of New York city, has issued the following rules for the guidance of barbers, which, he says, will be strictly enforced: 1. Barbers must wash their hands in soap and hot water before attending to each customer. 2. No alum or other astringent shall be used in stick form. If used at all to stop the flow of blood it shall be applied in the form of a powder. 3. Use of powder puffs is prohibited. 4. No towel shall be used for more than one person without being washed. 5. Use of sponges is prohibited. 6. Mugs and shaving brushes shall be thoroughly washed after use on each person. 7. Combs, razors, clippers, and scissors shall be thoroughly cleaned by dipping in boiling water or other germicide after every separate use thereof. 8. No barber, unless he is a licensed physician, shall prescribe for any skin disease. 9. Floors must be swept and mopped every day and all furniture and woodwork kept free from dust. 10. Hot and cold water must be provided. Customers of barber shops are advised to provide their own brushes, cups, razors, and combs, and to lend their assistance in every way to prevent the spread of contagious diseases of the skin.

Memorial to Dr. Hills.—At a special meeting held August 1, 1903, the Medical Staff of the Willard State Hospital unanimously agreed upon the following expression of regard and esteem for their deceased colleague, Dr. J. Ernestine Hills:

Dr. Hills had been a member of the staff since November 14, 1895, and had borne her full share of the burden of work. To the patients she was ever a sympathetic, interested, and sturdy friend, as well as their faithful physician. She gave to them what was best in her personal and professional life, intermingling with the services required by her position, those small kindnesses of word and deed, which go so far in promoting happiness, and which are an unfailing indication of a benevolent heart.

To her associates of the medical staff she was a warm-hearted, generous, encouraging, loyal friend, and a helpful and willing colleague. Whatever she did was done heartily, and the claims of duty, charity, and friendship never appealed to her in vain. It is, therefore,

Resolved, That we hereby express our sincere sorrow that she has been taken away, and our heartfelt sympathy with her relatives in their sore affliction, and

That a copy of this memorial be placed on the files of the hospital, a copy sent to her sisters and brothers, and a copy furnished for publication to the medical and lay press.

For the Medical Staff,

WILLIAM AUSTIN MACY, M. D.,
Superintendent.

PHILADELPHIA AND PENNSYLVANIA

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

DISEASES.	Week end'g Aug. 29.		Week end'g Aug. 22.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	12	4	20	2
Diphtheria	51	13	60	12
Scarlet fever	57	0	65	3
Typhoid fever	133	15	118	18
Consumption		52		58
Cerebrospinal fever		1		

This table shows a decrease of fifteen in the total of cases of contagious diseases as compared with the preceding week.

Appointment to Philadelphia Hospital.—Dr. Fred Johnson has been appointed assistant chief resident physician to the Philadelphia Hospital, a position recently made vacant by the resignation of Dr. George E. Pfahler.

Free Lectures to Mothers.—The address to mothers about the care of babies has attracted large numbers of women. Much interest is being shown by mothers in the free talks on the care and food for babies. Dr. Howard C. Carpenter addressed a large meeting on the Use of Milk as a Child's Food.

A Substitute for Radium.—Dr. Willis F. Manges, of Philadelphia, writes that the item in our issue for August 29th, to the effect that he had discovered a cheap and valuable substitute for radium, is entirely without foundation. A reporter who visited the doctor's x ray laboratory concocted the entire story from his too vivid imagination.

The College of Physicians of this city owns the second largest library of medical works in the world, the largest being that of the surgeon-general at Washington. The collection was begun in 1788 by a gift of twenty-four volumes from Dr. John Morgan, founder of the medical department of the University of Pennsylvania, and now numbers 67,243 volumes.

A Lecture on Nasal Breathing.—Dr. W. G. B. Harland at a public meeting given under the auspices of the National Congress of Mothers delivered a lecture on "Breathing as a Cause of Disease." In this lecture he emphasized the value of nasal breathing in children, as compared to breathing by the mouth, and tried to impress his lay audience with the necessary precautions of a hygienic nature against the entrance of disease through these channels.

Meetings in the College of Physicians' Building.—The many meetings of the different societies that are held monthly in the College of Physicians' Building, but have been suspended for the past few weeks, are to be resumed in September. On the first Wednesday the members of the College of Physicians will assemble. The County Medical Society will resume its meetings and will hold the sessions on the second and fourth Wednesdays of each month. On the third Wednesday a business meeting will be held. On the second and fourth Thursdays the Pathological Society will meet. In October all the societies that meet in this building will begin to hold their regular meetings.

Dr. Walter Returns.—Dr. Max J. Walter, of Philadelphia, has returned after an extensive visit to Europe, where he has been studying the methods of Fuisen, Schott, Winternitz, and other authorities, which he intends to put into practical application in Philadelphia.

Human Skeletons Found in Franklin Field.—During the excavation of ground on Franklin Field, on which the new gymnasium for the University of Pennsylvania is to be erected, the workmen are daily unearthing various fragments of human bodies. Evidences point toward an abandoned potters' field, and from the conditions of the bodies it is probable that the burials were made during an epidemic, when it was necessary to dispose of the corpses as quickly as possible. None of them show any signs of having been in coffins; evidently they were indiscriminately heaped side by side.

Coatesville's New Hospital.—The handsome new hospital at Coatesville, Pa., was dedicated Saturday, August 29th, by Governor Pennypacker and members of the Legislature from Chester County. The building is of old Colonial style, one hundred feet front by eighty feet in depth, and is surrounded by beautiful lawns, trees, and flower beds. The Huston Memorial Hospital, maintained for four years by Mr. and Mrs. Charles L. Huston at an annual expense of over \$6,000, was the nucleus of the new institution, Coatesville having outgrown the smaller one. The attending physicians are D. P. Rettew, E. V. Swing, J. W. Pratt, W. H. Emery, A. Carmichael, S. H. Scott, H. E. Williams, H. A. Porter, and L. V. Reel.

The Consumption Pavilion of the Philadelphia Hospital.—This addition to the Philadelphia Hospital is rapidly demonstrating the therapeutic value of the outdoor treatment for tuberculosis. The patients are visibly improving to a great degree, and not only the physical, but the psychical improvement is rapidly becoming manifest. The gain in weight of several patients has been extraordinary, the increase varying from five to fifteen pounds within the comparatively short period of one month. The pavilion is so situated that there is constantly a current of fresh air circulating among the patients, at an elevation far above any other portion of the hospital occupied by patients. This department is under the same supervision as other wards, and a nurse and a resident physician are constantly in attendance.

The Campaign Against Smallpox.—Smallpox is on the increase. The officials of the bureau of health are working night and day to try to stamp out this disease, but they do not seem to be able to overcome the pest. On Tuesday five new cases that had developed within the past forty-eight hours were reported to the board of health. The bureau is still enforcing its campaign against smallpox through the work of the vaccine corps. A case was found in a large mill. The stricken one was hurriedly taken out and the health physicians attempted to vaccinate the rest of the employees. The employers objected, and would not let the physicians into the building. On the following day it was threatened to fumigate the building and then quarantine it, after which no further opposition was made.

General Practice Quiet.—Outside of the work of the health authorities there is very little being done by physicians. Many of the most prominent ones are away taking a long vacation. During the summer months the hospitals in this city have had their hands full, although those that had erected a sunstroke ward had little use for the department. There were few heat cases treated, the number being less than for a long time. The recent fatality at the Philadelphia Ball Park caused a rush on the hospitals in the vicinity of the grounds, the bulk of the injured going to the Samaritan. The officers, physicians, and nurses of this hospital did yeoman work and through their efforts many lives were saved. There are still a number of patients that were injured at the ball park at the hospitals, but they are progressing favorably.

Sudden Death of a Nurse.—Helen Uhland, a trained nurse, died suddenly on August 28th. She was forty-five years of age and resided at 1212 Parish Street. The death was sudden. The case was turned over to the coroner. A note was found in her room by the coroner's deputy, in which it was stated that she had over six hundred dollars in the Philadelphia Saving Fund at Seventh and Walnut Streets. Owing to the nature of the note the question whether it constituted a will arose. It was impossible to obtain the money from the bank until the note was probated, and the Board of Health ruled that the burial would have to take place at once. Then it was discovered that the woman had relatives in Cincinnati and, in hopes of reaching them in time to procure enough money to give the nurse a decent funeral and keep her from a pauper's grave, Coroner Dugan asked the Cincinnati authorities to secure information of Miss Uhland's friends.

The Board of Health's Circular.—To urge anew the importance of vaccination as a safeguard against smallpox the bureau of health has placed in broadcast circulation thousands of circulars written in such simple, direct language that all may understand. The circular in part reads as follows: When you are successfully vaccinated you need have no fear of getting smallpox. A sore arm for two or three days amounts to nothing when it is compared to the suffering of a person who is sick with the smallpox. Babies and little children, whose vaccinations have taken, never get smallpox. This is often seen in the smallpox wards of the Municipal Hospital. Take infant patients at the Municipal Hospital. One with smallpox was unvaccinated and it died. The other came in with its mother, who was suffering from smallpox. It was immediately vaccinated; the scab is still on the leg. This child remained in the hospital three weeks and was discharged perfectly well. Sometimes a father or mother will get this dreadful sickness and to keep the neighbors from getting it the family is moved to the Municipal Hospital. The babies and children cannot be left behind, and when these children have been vaccinated in the right way they can be with their parents without danger. They live in the same ward with them and with many other smallpox patients and eat and sleep with them without fear.

Spread of Typhoid Fever.—Besides smallpox the health authorities have typhoid fever to combat. The new cases of typhoid fever reported to the bureau of health for the week ending August 22nd aggregated one hundred and eighteen. This is the largest number of cases for several months past. The reports show that the cases prevail throughout the city, those sections which have filtered water containing as many sufferers as those in which dwell their less fortunate neighbors who drink Schuylkill water straight. The total number of smallpox cases for the week reached 20, an increase of four over last week. The number of deaths from smallpox this week was only two, a decrease of five from last week. The new cases of smallpox occurred in the following wards:

WARDS.	CASES.	WARDS.	CASES.
15th	1	32d	2
19th	5	33d	6
20th	1	37th	2
23d	1	41st	1
28th	1	.....	—
31st	1	Total	20

CHICAGO AND ILLINOIS.

Statement of Mortality for the Week Ending August 29, 1903, compared with the preceding week and with the corresponding week of 1902. Death rates computed on estimated mid-year populations of 1,885,000 for 1903 and of 1,820,000 for 1902:

	Aug. 29, 1903.	Aug. 22, 1903.	Aug. 30, 1902.
Total deaths, all causes.....	586	483	534
Principal causes of death—			
Acute intestinal diseases.....	142	106	115
Apoplexy	8	8	11
Bright's disease.....	30	22	30
Bronchitis	8	18	4
Consumption	51	68	46
Cancer	30	19	20
Convulsions	12	8	12
Diphtheria	12	3	7
Heart diseases.....	42	32	23
Nervous diseases.....	49	27	26
Measles	1	2	1
Pneumonia	22	25	25
Scarlet fever.....	5	2	2
Smallpox	2	2	0
Stroke	1	0	0
Suicide	10	1	9
Typhoid fever.....	15	17	51
Violence (other than suicide).....	35	32	42
Whooping cough.....	4	1	11

"Boil the Water" Warning Suspended.—Taken to task for omitting the usual caution to Chicagoans to boil the lake water before using it as a beverage, the board of health states that it has issued the warning for eight years and that it should by this time be sufficiently impressed upon the citizens. The board is now devoting most of its time to the analyzing of milk and other features of the pure milk bill.

Changes in the Health Office.—Reorganization of the city laboratory was effected yesterday by acting Health Commissioner Reilly by the appointment of J. F. Biehn as assistant bacteriologist and the temporary selection of George E. Masslich as city chemist in the absence of D. B. Bisbee. Dr. Masslich is a young man who volunteered to help the city in testing milk samples. The day he reported to W. K. Jaques, city chemist Bisbee went off on a vacation a week before his time. Hugo Jones has again been detailed to the analyses of water, which he makes every

day. Dr. Biehn was appointed as a sixty-day man to fill the vacancy caused by the resignation of L. A. Kierullf, against whom charges had been preferred before the civil service commission. Meat Inspector Weber was detailed to make an investigation of charges that bad fruit is sold. Ice Inspector Riley will assist him. Complaints were made that in South Water Street the baskets of fruit contained good fruit at the top and at the bottom and that the decayed fruit was concealed between. The scheme to put the poor fruit in the middle of the basket is new this year.

GENERAL

Kansas City Hospital to be Modern.—The new hospital for Kansas City, Mo., to be erected at a cost of not less than \$400,000, will probably be on the cottage plan. Architects are to come east to study models, and also how the large appropriation may be invested to the best advantage.

New Medical Society in Connecticut.—A movement is on foot to organize in Connecticut a medical association similar to the New York Celtic Medical Society. Physicians of Irish descent are numerous in the State, and steps have already been taken to draw up a constitution and by-laws.

A Fatal Duel between Physicians was fought at Muhlhausen, Germany, on August 25th, the result of a controversy over the management of the National Invalid Insurance funds. The manager, Dr. Schwartz, killed Dr. Schloss, leader of a strike among the outdoor relief physicians.

Atlanta Hospital for Incurables.—Work on this institution will begin in a few days. Deeds to the square on the Southern Boulevard have been received, and \$5,000 of the required \$12,000 has already been paid in. Subscriptions may be sent to Mrs. W. H. Jackson, treasurer, or to Mrs. John A. Miller, President.

Hospital for the Insane at Anacostia.—Dr. William A. White, formerly assistant superintendent of the New York State Hospital for the Insane at Binghamton, has accepted the position of superintendent of the Government Hospital for the Insane at Anacostia, across the river from Washington, and has telegraphed to that effect to Secretary of the Interior Hitchcock.

The Physicians of Omaha, Neb., feel aggrieved at the new regulations of the State board of health regarding the registration of births, which must now be made at the physicians' own expense. In attending large numbers of cases of accouchement without pay, the practitioners think they accomplish all that should be expected of them. The new regulation also penalizes heavily omission to report infectious diseases.

Changes at Washington Asylum.—D. Percy Hickling, visiting physician of the Washington Asylum Hospital, has recommended to the commissioners that the resignation of Miss Abigail M. Head, graduate nurse at \$365 per annum, be accepted, to take effect August 31, 1903, and that Miss Caroline C. Cresson be appointed to fill the vacancy, to take effect September 1, 1903. This has been approved by the commissioners.

Doctor Becomes Missionary.—Dr. Halstead S. Hedges, a well-known physician of Charlottesville, Va., has decided to give up his practice and go as a Christian missionary to Japan.

American National Red Cross.—Arrangements are being made to place trained nurses in the poorest and most remote country districts, by an organization which is to act as an auxiliary to the American National Red Cross. Thoroughly trained young women will be at the disposal of the latter in time of epidemic or other emergency. The committee having this movement in charge is acting in conjunction with the Philadelphia School of Nurses. A chest is being designed, into which hospital requisites can be closely packed, while a companion chest will contain a folding bathtub. These chests, each in charge of a trained nurse, are to be placed in every borough and township, subject to call. Half of the three hundred and fifty students who are expected to begin study on October 7th have already enrolled. The course of lectures will last twelve weeks. The uniform will be that of the Red Cross, with the additions of a suitable hat and cloak for street wear.

New Plan for Admission to the Army Institute, Washington, D. C.—A new plan for admission to the Medical Corps of the army has been approved by the secretary of war and will go into effect with the class next year at the Army Medical School. The class this fall will enter under the same examinations as heretofore. The new plan for admission is to place on the list of eligibles for commission as assistant surgeons in the Medical Corps of the army all graduates of the medical school who shall have passed the final examination with a mark of 80 per cent. or over. During their course at the school they will be paid \$100 per month. The plan of admission calls for examinations, physical and mental, and candidates must be graduates of reputable medical schools and have had at least six months' practice in hospital or the equivalent. The examinations are to be conducted under the supervision of a board of medical officers of the army, and candidates who pass the entrance examinations with a mark of 80 per cent. or over will be entered in the school. The scholastic year is from October 31st to May 1st, and graduates will be selected in the order of their standing for commissions. It is believed that this plan will have many advantages over the old one, where the candidates for admission to this branch of the army could not well be placed under the observation of old officers. It will also furnish trained physicians who may engage in contract work among the National Guard or in the volunteers in time of war, and it will send out a corps of physicians who have had the advantage of an extended course of training in an army medical school. It is believed that it will prove attractive to many young physicians who will take advantage of the opportunity to obtain the training in the school, whether or not they may at the end of their course wish to enter the army. The plan has the approbation of the Medical Corps of the army.

Georgia's New State Board of Health.—Governor Terrell appointed the members of the new State board of health on August 21st. These appointments were made under the provisions of the act passed at the last session of the legislature creating the State board of health. The physicians appointed yesterday were F. M. Ridley, of LaGrange; Willis F. Westmoreland, of Atlanta; R. M. Harbin, of Rome; Giles Hathcock, of Belton; Charles Hicks, of Dublin; W. W. Owens, of Savannah; A. P. Taylor, of Thomasville; M. S. Brown, of Fort Valley; Howard J. Williams, of Macon; Samuel C. Benedict, of Athens, and J. B. Morgan, of Augusta. Under the provisions of the act one of the members of the first board is to hold office for six years and the terms of office of two of the others are to expire each year, their successors being reappointed at once. Governor Terrell appointed Frank M. Ridley, of LaGrange, who lives in his own congressional district, to the long, or six year term, and drew lots to decide the terms of office of the others. This was done to avoid all partiality. The board will have a meeting at an early date and elect a President and secretary. The secretary will receive a salary of \$2,000 a year and will have an office in the capitol. The other members of the board will receive a per diem remuneration and expenses. The duties of the body will be those usually belonging to boards of health.

Precautions in Shipping the Dead.—H. M. Bracken, secretary of the Minnesota State Board of Health, said recently in an address to the National Association of Funeral Directors: Health officers are vitally interested in one branch of the work of funeral directors—the preparation of bodies for shipment. In this country until about 1896 but little attention was given to this very important subject, but about that time the State and provincial boards of health, the National Association of Funeral Directors, and the American Association of General Baggage Agents began to work in harmony, and in 1897 uniform rules were adopted. These rules were amended in 1902. Minnesota and Iowa were the first States to adopt regulations for the preparation of bodies for shipment. There are now 285 licensed embalmers in this State, and no person who is not properly licensed may prepare a body for shipment. In this paper Dr. Bracken took the ground that no person should be licensed in any State as an embalmer except upon a thorough examination as to his knowledge and fitness to perform the work in a thoroughly sanitary manner. He referred to a complaint recently received from Ohio that an undertaker's assistant of that State had contracted erysipelas from contact with the body of a man who had died of that disease in Minnesota and had been shipped to Ohio under a certificate that it had been thoroughly embalmed. Dr. Bracken said that had the work of embalming been properly done there could have been no infection, and under the circumstances, he believed the trouble to have been due partly to the embalmer and partly to the embalming fluid used. He placed some emphasis upon the importance of securing proper fluid.

Pith of Current Literature.

THE LANCET.

August 15, 1903.

1. The Causes, Prevalence, and Control of Pulmonary Tuberculosis (Milroy Lecture),
By H. TIMBRELL BULSTRODE.
2. Infantile Scurvy, By W. S. COLMAN.
3. On the Action of Hæmolytic Sera, By ROBERT MUIR.
4. A Problem in Medicolegal Psychology,
By J. S. MACKINTOSH.
5. A Rare Case of Intestinal Obstruction Resulting from a Kick in the Right Iliac Region,
By GILBERT KEMPE, and E. KEMPSON BROWN.
6. Results Obtained at Mundesley Sanatorium in the Treatment of Pulmonary Tuberculosis,
By F. W. BURTON-FANNING, and W. J. FANNING.
7. On the Treatment of the Summer Diarrhœa and Vomiting in Infants, By H. T. HICKS.
8. The Successful Treatment of Sporadic Dysentery by Aplopappus Baylahuen, By WILLIAM FINGLAND.
9. A Case of Traumatic Tetanus Treated with Antitoxine; Death, By H. S. ELWORTHY.
10. The Treatment of Congenital Phimosis,
By J. F. WOODYATT.

1. **Tuberculosis.**—Bulstrode concludes his lectures on this subject with the description of four sanatoriums which have been established in England for the treatment of the poor suffering from tuberculosis, and reviews the work accomplished by one of them, and urges the establishment of small inexpensive institutions in preference to large ones, where many patients are housed in one building. The three agencies on which he would place the most reliance as regards the control of pulmonary tuberculosis are as follows: 1. The education of older children in the principles of health, and the periodical examination of all school children, with the view of improving the health of those prone to tuberculosis or who may already be suffering from the disease in an unrecognized though not unrecognizable form. 2. Some such system of compulsory insurance against sickness and invalidity as obtains in Germany. 3. Better housing and improved conditions of employment of the working classes.

2. **Infantile Scurvy.**—Colman calls attention to the fact that scurvy among infants has been recognized only within the past thirty years, and that it is on the increase, owing to the prevalence of bottle feeding. He considers that it is identical clinically and pathologically with adult scurvy, and is almost invariably due to the absence of a sufficiency of fresh milk, and, in most cases, the administration of preparations of milk in which the composition of the milk has undergone some more or less profound alteration. The author describes the symptoms of both severe and mild cases, calling attention to the joint pains, flabby though apparently well nourished muscles, changes in the gums, etc., and states that the only treatment is fresh milk, broths, meat juice, and orange juice.

5. **Intestinal Obstruction.**—Kempe and Brown report the case of a stable-boy who was kicked by a horse and very soon showed in the right iliac region symptoms of peritonitis and, later, those of obstruction, which progressed rapidly to a complete occlusion, and the operation of enterotomy was required. The conditions improved, and thirty days afterward an operation was performed to remove the obstruction. All adhesions were freed and a portion of the gut excised and the ends united. The result of this operation was not satisfactory, and soon the condition of the patient became so bad that a second enterotomy was required. He then improved, and more than two months later a short-circuiting operation was done by invaginating and suturing the distal end and implanting the proximal end of the gut at the side of the fæcal fistula into the colon, and recovery took place.

6. **Results in Pulmonary Tuberculosis.**—Burton-Fanning and W. J. Fanning, who had charge of the sanatorium at Mundesley, report their results for three years from June, 1899, to June, 1902. During this period 143 cases were treated and were divided into two classes, the febrile and non febrile. All those patients who developed during the first week an average afternoon temperature by mouth of more than 99° F. were classed as febrile. In this class were 67 cases, 54 being advanced cases, and 13 with slight disease. The non-febrile cases numbered 76, in 37 of which the disease was of long standing, and in 39 of recent origin. At the time of discharge from the sanatorium, in 47 there was arrest with ability to work; in 36, arrest with inability to work; in 38, improvement; in 8, no improvement; and in 14, retrogression.

After a period of from one to four years since the discharge of the patients 97 per cent. of the 47 in whom arrest with ability to work was present were alive, and in 89 per cent. the satisfactory condition had remained, while 88 per cent. of the 36 in whom arrest with inability to work occurred were alive, and in 61 per cent. the improvement continued. That is—arrest was secured in 58 per cent. of all the patients, and nearly 94 per cent. were still living. Improvement, not amounting to arrest, was secured in 26 per cent., and 52 per cent. were still living.

The authors state that the best results were obtained in those cases which came to the sanatorium in the early stage, and they believe that in 75 per cent. of cases which come under treatment in the earliest stages, restoration to more or less fitness for work may be obtained. Many of the patients after leaving the sanatorium went to different climates, but the progress of the disease appeared to be no different from the case of those who remained in England.

7. **Summer Diarrhœa.**—Hicks presents in this article an outline of the plan of treatment pursued at the Evelina Hospital for Sick Children for cases of diarrhœa and vomiting, and states that the principles of this treatment consist in removing the toxins by the least irritating means and supplying a fluid which can be retained and absorbed.

For mild or moderately severe cases the following plan of treatment is adopted: After a warm bath the stomach is washed out with slightly alkaline water until it returns clear, and then one drachm of castor oil, an ounce or two of albumen mixture, and a drachm of meat juice are administered through the tube. Then, if this is retained the same quantity of food is given by mouth; if rejected, smaller quantities are given at frequent intervals, but if vomiting persists, feeding by the mouth is stopped and intercellular injections of normal saline infusion resorted to. In very bad cases this intercellular infusion is tried at once. In employing this method the author states the amount must be small, not over four ounces, and must be injected slowly. Small enemas of saline solution may also be used with benefit.

He advises that this method of feeding be continued for twenty-four hours and then feeding by the mouth with small amounts be tried, and if the food is retained it can be increased in amount, the albumen mixture being used first and then peptonized milk.

Absolute rest and cleanliness are stated to be of the greatest importance, and frequently two nurses are employed, one for the feeding and the other for the cleansing, in order that the food may not become contaminated in the slightest way with fecal matter. For chronic cases of diarrhœa and vomiting, where milk and milk mixtures cannot be retained, malt soup has been found to be very satisfactory. In very obstinate cases of habitual vomiting the introduction of food through the nasal tube causes it many times to be retained when attempts at mouth feeding have proved useless.

8. Sporadic Dysentery.—Fingland reports three cases of dysentery presenting the usual symptoms of nausea, vomiting, pain, thirst, tenesmus, and diarrhœa with blood and mucus, which were very promptly relieved by the fluid extract of *Aplopappus Bayhahum*, though the usual methods of treatment had been tried unsuccessfully. Two of the patients had had recurrent attacks. The remedy was administered in 20 minim doses thrice daily, suspended in cream, milk, or almond emulsion, as it is not miscible nor can it be combined.

9. Tetanus.—Elworthy reports a case of tetanus occurring in a boy aged fourteen years, of delicate constitution, which appeared eight days after a perforating wound of the foot, where the injection of the tetanus antitoxine apparently had no effect upon the progress of the disease. Ten cubic centimetres were injected under the skin of the abdomen on the evening of the first day the spasms appeared, and at midnight ten more. The following morning ten c. c. were injected into the thigh, and in the afternoon, as the spasms were more frequent, the same amount was injected into the spinal canal and this was repeated the following morning.

During this time he also received chloral, the bromides, and *cannabis indica*, and was fed by the nasal tube and nutrient enemata. A sixth injection of antitoxine was given under the skin,

but in spite of all treatment the convulsions increased in frequency, the temperature rose to 107° F., and on the third day the boy died.

10. Phimosi.—Woodyatt believes that the construction which prevents retraction of the prepuce is caused by a tight ring of mucous membrane just inside the prepuce, and that therefore circumcision is not necessary and is unsightly. By his method of operating he asserts that the prepuce may be easily retracted, though still covering the glans. The operation consists in drawing back the prepuce as far as possible, and then, with a sharp-pointed scissors, cutting the stricture first on the right side and then on the left. The cuts need not be long, but should be equal on both sides. After the stricture has been divided the prepuce should be retracted and the mucous membrane separated from the glans removing the smegma. The final step consists in putting in a single stitch of chromic gut and bringing the ends of the incision together converting the longitudinal incision into a transverse one. If the sutures do not come away of themselves they may be removed in a week or ten days, when it will be found that the prepuce is easily retracted and replaced.

BRITISH MEDICAL JOURNAL.

August 15, 1903.

1. An Inquiry into the Relation of Vaccination to Infant Mortality and Acute Concurrent Infantile Diseases,
By J. M. MACKENZIE.
2. Security of Tenure of Office of Sanitary Officers,
By JOSEPH GROVES.
3. The Appointment of a Minister of Public Health,
By FRANK G. BUSHNELL.
4. Physical Degeneration in Children of the Working Classes: An Inquiry into its Causes and Suggestions for its Remedy,
By HERBERT H. TIDSWELL.
5. Three Cases of Excision of the Cæcum,
By T. T. PAUL.
6. A Case of Purulent Pericarditis of Unusual Duration in a Child,
By J. A. COURTS.

1. Vaccination and Infant Mortality.—Mackenzie refers in this article to the popular impression that vaccination introduces into the infants many diseases which impair vitality, and also that it is directly contributory to infant mortality, and states that he was led to investigate the subject because a specialist in children's diseases had mentioned in an article sent to him vaccination as a cause of infant mortality. He traced 987 children who were born in the years 1900, 1901, and 1902, in the district where he was medical officer during this time, and resided there. Of these 987, 706 were vaccinated and 281 not vaccinated.

The mortality of those children who had been vaccinated during the first year of life was 8.49 per cent. and of the unvaccinated 16.01 per cent.

He also found that among the children who were vaccinated death occurred at such an interval following that the vaccination would not be regarded in any way responsible.

The popular impression, even among the medi-

cal profession, that vaccination acting concurrently with another disease imparts a shock to the infant and accelerates its death is shown to be erroneous, with possibly the exceptions of zymotic enteritis and tuberculosis. Measles, scarlatina, pertussis, influenza, and syphilis all seemed to be favorably affected by the vaccination.

The author believes that latent eczema and impetigo may be excited by vaccination, and cites cases which seem to prove his statement.

In his opinion true insusceptibility to vaccination is extremely rare, though there may be a temporary insusceptibility due to ill health, particularly anæmia, and that when this is removed the susceptibility returns.

5. Excision of the Cæcum.—Paul reports three cases of excision of the cæcum for malignant disease, which he considers rare in this locality. He calls attention to the fact that cancer of this portion of the colon, as well as the other regions, begins insidiously, the early symptoms being those of flatulent dyspepsia; and that as a rule the diagnosis is not made until a tumor is discovered or symptoms of obstruction appear. He considers delay until obstruction takes place to be very unfortunate, as the prognosis in these cases is grave, the location of the tumor being rendered difficult, the operation prolonged, the chances of infection of the peritonæum increased, and, in addition, the patient is depressed from the absorption of toxins. He has noticed that sloughing is much more likely to occur in this region, owing to the interference with the circulation due to the extensive involvement of the mesentery, and therefore advises bringing out both ends of the bowel, and establishing an artificial anus. Enlargement of the adjacent mesenteric glands is not considered to mean an absolutely hopeless prognosis, as he had had two cases of this sort where the patients were alive and well, after periods of two years and a half and four years and a half, respectively.

6. Purulent Pericarditis.—Coutts reports this case because it presented several very interesting and unusual features. (1) It was a case of primary and solitary inflammation of the pericardium, and was not associated with pneumonia or empyema; (2) the organism found at the autopsy was identical in form with Fraenkel's pneumococcus; (3) the child lived for seventeen weeks with a condition which is usually rapidly fatal. The facts that she had lived for ten weeks before entering the hospital; that the apex beat could be plainly felt; and that the cardiac sounds were comparatively clear, caused the author to consider the case as one of empyema loculated in character. An attempt to remove the fluid was unsuccessful, owing to the fact that the child took the anæsthetic badly and nearly died on the table. The author thinks that if the pericardium could have been opened and drained the child might have recovered, as a subsequent patient who was in a worse condition survived the operation and seemed in a fair way to get well, though it was too early to state that positively.

LYON MEDICAL

August 3, 1903.

1. Action of Formic Acid on the Muscular System,
By CLÉMENT
2. Intestinal Hæmorrhage in Typhoid Fever,
By DUPONT

1. Formic Acid and the Muscles.—Clément says formic acid was employed in the seventeenth century as a cordial, stomachic, and diuretic, and was the base of Hoffman's *Vinegar of magnanimity*. Recently it has fallen into disuse. Clément first experimented upon himself with ten drops three times daily in Vichy water, making a sodium formiate. In twenty-four hours muscular excitement was noticed and an inclination to move and walk. It does away with morning lassitude and should be beneficial in those people who find themselves 'very much fatigued with their night's rest.' Muscular energy was proved with Colin's dynamometer. The same results obtained in four healthy subjects and six invalids. Formic acid, however, lowers arterial tension. Subsequent use of an ergograph confirmed Clément's conclusions, which are that formic acid has a favorable action on the muscular system, augmenting its activity and force, and warding off fatigue; and that it is hypotonic in vascular tension. The latter action, however, needs further investigation.

2. Hæmorrhage in Typhoid.—Duplant speaks of four cases of intestinal hæmorrhage in typhoid fever, all of which recovered. Hæmorrhage took place in all on the tenth day, and constituted the entire intestinal evacuation. When the blood becomes tar colored and has the characteristic smell of intestinal digestion, prognosis is favorable. If hæmorrhage is not fatal in itself, it is not an unfavorable sign. Treatment demands the immobilization both of the patient and of the intestine. As baths cannot be given, pills of opium may be administered, and occasionally morphine may be hypodermically injected. Ergotine has been successfully combined with the latter. Milk diet should be suspended, and iced water given in its place till the danger is passed.

August 9, 1903.

- A Case of Acute Optic Neuromyelitis (Acute Diffuse Myelitis with Double Optic Neuritis),
By E. WEILL, and L. GALLAVARDIN.

Optic Neuromyelitis.—Weill and Gallavardin recall the known frequency of lesions of the optic nerve in connection with diseases of the central nervous system; what is less known is the anatomical connection between optic neuritis and acute diffuse myelitis, constituting clinically an acute paraplegia, preceded or followed by a bilateral, total amaurosis. Devic proposed the name given to this paper. The case cited occurred in a child of fourteen, and is summarized as follows: Paraplegia, coming on slowly without apparent cause, becoming total in ten days; absolute loss of motion, total anæsthesia, tactile, thermic, and to pain; abolition of cutaneous and tendinous reflexes, incontinence of fæces, and urine (the latter helped by systematic catheterization); bed sore on

buttocks; bilateral amaurosis, beginning one month after the myelitis, becoming total in a few days and improving slightly towards the last; terminal bronchopneumonia. Autopsy and microscope showed intense, diffuse, acute myelitis of the lower and lumbar cord; double optic neuritis; slight lesions of peripheral neuritis; diffuse interstitial encephalitis. From this case and those cited by others, the authors conclude that the central lesion and the optic are not merely disconnected, simultaneous phenomena. Both eyes are always affected, sometimes before the central lesion, sometimes afterward; if vision improves, prognosis is favorable. The myelitis is generally of insidious evolution; one leg is usually attacked first. General prognosis is by no means hopeless. The white matter of the cord and the optic nerves have the same anatomical structure, the same embryological origin, and the same morphological significance.

August 16, 1903.

1. Tuberculous Encephalomeningitis; By TATY.
2. Five Cases of Diphtheritic Panaris, and Subcutaneous Inoculations of Diphtheria, By VICTOR HAU, and L. REVOL.

1. **Tuberculous Encephalomeningitis.**—Taty says scientific accuracy demands the "encephalo," since lesions of the brain substance occur invariably in connection with those of the meninges. He cites two cases where microscopic lesions were present post mortem in the left ascending frontal convolution, and almost complete softening of the brain substance was observed macroscopically. Taty refers to the alcoholic and diabetic history of the father of one of the children affected, and expresses an opinion that there might have been a protoplasmic alteration of hereditary origin, rendering it incapable of resisting a tuberculous invasion.

2. **Subcutaneous Inoculation of Diphtheria.**—Hau and Revol report five cases, supplementing others reported in January, 1900; in all, the acute stage was short, general reaction slight, and recovery rapid even without antitoxine. The practice of intubation exposes physicians, and children are liable to autoinoculation from carrying their fingers to the nose and mouth. The principal phenomenon is the occurrence of a boil and subsequent detachment of the skin; in two cases, false membrane formed—Löffler's bacillus was always present. The ideal treatment is to excise the skin over the affected area and expose the latter to air and sunlight. Slight and unimportant in themselves, these lesions are dangerous in their power of transmitting the disease, all the more so, since the sufferer rarely has an idea of the nature of his trifling wound.

PRESSE MEDICALE.

August 8, 1903.

- Bone Marrow and Its Elements in Chronic Staphylococcus Infection, By K. S. DE GRAAG.

Bone Marrow in Infection.—De Graag details a series of experiments with rabbits into which he injected cultures of *Staphylococcus pyogenes aureus*, in increasing doses, for periods varying

from thirteen to ninety-six days. The rabbits decreased in weight rapidly; in four only were there internal abscesses. In a few there was degeneration of the epithelial cells of the liver, kidneys, and myocardium; there was never endocarditis. In comparing the marrow of the infected animals with normal tissue, hyperæmia was often found and a friable or fluid condition; where infection was prolonged, the density of the marrow was increased. Microscopically the marrow was never normal; the adipose vesicles always disappeared, but the colorless cells with pseudo-eosinophile granulations were invariably proliferated. Sometimes, especially in the marrow of the tibia, there was a gelatinous formation. The number of cells was always augmented, both pseudo-eosinophiles and, to a lesser degree, to multinuclear leucocytes. Thus the reaction of marrow to infection is salutary; stimulated by karyokinesis, it furnishes in excess cells to become multinuclear, which are used for leucocytosis and for abscesses, in a word for the defense of the organism against pathogenic attacks. The pseudo-eosinophile cellular proliferation is proportional to the duration of the pyogenic injections.

REVISTA DE MEDICINA TROPICAL.

Vol. IV, No. 7.

- Specific Gravity of the Blood and Hæmoglobin Estimate in Yellow Fever, By A. D. ALBERTINI.

1. **The Blood in Yellow Fever.**—Albertini has found that in yellow fever the amount of hæmoglobin is high, while the specific gravity of the blood is variable; ascending and descending without relation to the hæmoglobin. This finding, the author believes, is of distinct importance in the differentiation of yellow fever from other conditions; as the work of Plehn has demonstrated that there is a direct parallelism between hæmoglobin and specific gravity in malaria, both ascending and descending together; while in typhoid and dysentery the specific gravity is reduced and hæmoglobin remains unchanged. The author found that in one case of yellow fever, on the second day, with hæmoglobin 92 per cent. there was a specific gravity of 1.055; and on the fifth day, with the same amount of hæmoglobin, the specific gravity descended to 1.045. According to Plehn's findings in healthy individuals and in malarial cases, 92 per cent. hæmoglobin corresponds to 1.060 specific gravity, and not to 1.055; and 80.5 per cent. hæmoglobin to 1.045 and not 92 per cent. In some cases of yellow fever the specific gravity rose to the normal or above it after having fallen below. The high percentage of hæmoglobin corresponds to a relative increase in red cells in yellow fever found by Dr. Finlay; as stated in a paper read by him before the Academy of Sciences, August 27, 1882, on the Pathogenesis of Yellow Fever. In the estimate of hæmoglobin the author used Fleischl's and Gower's apparatus. For the specific gravity Hammerschlag's method was used. This only requires a small densimeter, a cylindrical glass vessel and a mixture of benzol and chloroform. The method is based upon the physical law that a body will float in a liquid of the same specific

gravity. A drop of blood, insoluble in the above mentioned mixture, will take a spherical form and will go to the bottom or float according to its specific gravity compared to that of the mixture. The author employed a mixture of chloroform (1.526 specific gravity) grammes 40, and benzol (0.889 specific gravity) grammes 2; giving an approximate specific gravity of 1.060. The blood was obtained by puncture of the finger and was allowed to fall directly into the cylinder containing the mixture of chloroform and benzol. If the specific gravity of the blood is higher than that of the mixture, it will go to the bottom as a red bead, and if lower, it will float on the surface. If the former condition obtains, the specific gravity of the mixture is increased by adding chloroform drop by drop. If the blood floats, benzol is added in the same manner. When the drop of blood remains indifferently in any layer of the mixture in which it may be placed, or in the middle of the cylinder, the specific gravity of the mixture is taken with the densimeter and this will be the specific gravity of the blood. The author believes that such investigations of the blood, simple as they are and readily accomplished at the bedside, will contribute much to the rapid clinical diagnosis of yellow fever and other infectious diseases.

RIFORMA MEDICA.

June 10, 1903.

1. Infantilism without Loss of the Thyreoid. The Organic Balance in a Case of Mitral Infantilism,
By L. FERRANNINI (*To be continued*).
2. A Case of Geroderma, By PAOLO BEURI.
3. Bacteriuria, By L. FERRANNINI.
4. Synorchism in the Conservative Operations Upon the Testicle, By G. PASCALE.
5. On the Determination of the Osmotic Pressure of the Blood in Organic Liquids by Means of Cryoscopy, By G. FERRANNINI.

2. **Geroderma.**—Bueri reports a very rare case of congenital dystrophy known as geroderma. The first cases of this affection were described by Rummo and by Ferrannini of Palermo. These first cases were observed in males, in whom it is easier to recognize senile alterations in the genital organs. The present case was observed in a girl aged fourteen years, who showed at first the characteristic symptom of geroderma, namely, the senile face. The patient looked like an old woman, except that her eyes seemed youthful. There was a peculiar elongation of the lobule of the ear which hung in the form of a flabby, pointed pendant. In weight and size the girl was slightly below normal. She had never menstruated and her genitals were in a state of atrophy. The labia majora and minora were rudimentary, and there was a very scanty growth of hair. The clitoris was greatly enlarged and prominent; the uterus was very small, even in proportion to the age of the patient. The voice of the patient was low pitched, rather masculine in character. The right lobe of the thyreoid was completely absent, while the left lobe and the isthmus were normal. The extract of thyreoid was given in tablet form with consid-

erable success; for within three weeks the child improved in appearance, in weight, and lost something of its senile aspect.

4. **Synorchism as a Conservative Operation in the Testicle.**—Pascale, in order to save as much testicular tissue as possible in operating for tuberculosis of the testicle, proposes to engraft the remaining healthy portion of the affected gland upon the testicle on the other side. He found that this process was feasible in animals, and employed it in four cases in men in connection with partial resections of tuberculous testicles. Scaduto some time ago (1901) suggested the implantation of the vas deferens of the affected side upon the remainder of the testicle after the diseased portion had been removed, but there are many reasons why this process should not be employed, the principal one being that the disease as a rule affects the vas first and that the implantation of this duct into the testicle would infect the still healthy portion of this gland. On the other hand, the present author engrafted the remaining healthy part of a tuberculous testicle upon the healthy gland of the opposite side in such a manner as to utilize the vas of the healthy side as a common excretory duct for both testes. This was done by removing the entire diseased portion of the affected testis, including the epididymis and the vas deferens, leaving intact the vascular connections, incising and inspecting the body of Highmore, removing the septum between the two testicles and engrafting the healthy portion upon the opposite testicle. After the operation there remains a single enlarged testicle in the healthy side of the scrotum; in this manner the healthy testicle is functionally reinforced and as much of the diseased testis as possible is saved.

4. **Cryoscopy.**—Ferrannini discusses the various features of the technics of cryoscopy with the apparatus of Beckmann and with that of Raoult, the former involving the use of a mixture of ice and salt, the latter the evaporation of ether. The author thinks that the errors which arise in the observation of the freezing points of liquids with these apparatus have been regarded too lightly by most writers, and that the effect of this has been that the work which has been done in support of the seductive theory of Koranyi has not resisted the first attacks of the critics. The errors in observation are dependent upon a number of various factors such as the physiological variations in the freezing point of the liquids examined, the inaccuracies in the thermometers used, the radiation of heat from the upper part of the test tube which is exposed to the air, the lack of uniformity in stirring, the dilution of the fluid during examination, etc. If all precautions are used, however, the error is always less than three one hundredths of a degree, especially if the superfusion be allowed to cease before reaching the freezing point. The freezing mixture should be at a constant temperature, from two to two and one half degrees C., and if this is done the error will be less than one one hundredth of a degree, which is more than sufficiently accurate for clinical purposes.

ROUSSKY VRATCH.

Saturday, June 14, 1903.

1. On Movable or Floating Kidney,
By V. L. IAPOVSKI (*To be continued*).
2. Materials for the Study of the Action of Adrenalin,
A Preliminary Communication,
By V. F. SIMONOVITCH.
3. A Case of Jaundice,
By F. K. GEISSLER (*Conclusion*).
4. On the Dislocations of the Shoulder in Syringomyelia,
By S. S. NALBANDOF.

2. **Action of Adrenalin.**—Simonovitch studied the action of adrenalin on the organism when administered in various ways. He found that adrenalin in the quantities used by him did not act except when it was injected into the blood. When given by mouth in large amounts to animals, i. e., in doses of 0.015 — 0.03, it did not produce the general effects attributed to it. In man the injection of doses several times larger than that stated as the largest therapeutic dose, does not give any results whatever, not even a subjective sensation. The absence of the action of adrenalin when given by mouth is explained, according to the author by the fact that adrenalin is very slowly if at all absorbed into the blood, and not by the neutralization of adrenalin by the liver, as has been supposed by some. This is proved by the fact that injections of adrenalin into the intestinal veins produce less marked effects, but are not entirely without effects. Injuries to the intestinal mucous membrane do not improve the absorption of adrenalin. The remedy may be used directly upon the mucous membranes of the digestive tract, as for example, on the stomach without producing any general toxic symptoms, and may therefore serve as an internal hæmostatic. The largest dose stated to be admissible by mouth may be increased with impunity, as it is not so much a question of the amount administered at one dose as of the use of fractional smaller doses. Adrenalin glycosuria is evidently an effect of toxic action. The injection of adrenalin into the veins in order to stimulate the heart and revive the patient, is only to be resorted to as the last refuge, for the dangers of this procedure are considerable and consist in the possibility of paralysis of the heart, causing sudden death.

3. **Jaundice Due to Syphilis.**—In the present case Geissler excluded all the possible causes of chronic jaundice except syphilis. The patient denied all history of a venereal infection, but the diagnosis of syphilitic jaundice, secondary cirrhosis of the liver and chronic interstitial splenitis was made. Antispyhilitic treatment (inunctions of mercury and the internal use of potassium iodide) caused a disappearance of the jaundice, a diminution in the size of the liver and of the lymphatic glands.

4. **Dislocations in Syringomyelia.**—Nalbandoff reports a case of syringomyelia in a man aged fifty-five years, stone-cutter by trade, who sustained a dislocation of the left shoulder after a severe exertion with that arm. There was no pain, no swelling, and nothing to attract attention to the dislocated shoulder, except the limitation

in the movements of the left arm. On examination there was found a habitual anterior dislocation of the head of the humerus which recurred when the arm was abducted. There was, in addition, a dislocation of the first row of the carpal bones upon the second, towards the dorsum of the hand. The right carpometacarpal joint was loose, but not dislocated. The basic disease in this case was syringomyelia which had produced a chronic arthritis in the shoulder, resulting in a weakening of the ligaments and in a dislocation. Repeated traumatism incurred during the patient's work also contributed to the development of the luxations.

JOURNAL AKOUSHHERSTVA I GIENSKIKH BOLIESNEY.

March, 1903.

1. Methods of Expressing the Placenta,
By R. A. BUDBERG-BENNINGHAUSEN.
2. A Case of Clinically Primary Tuberculosis of the Falloppian Tubes,
By E. G. KAHN.
3. A Case of Sarcomatous Fibrolipoma of Retroperitoneal Origin,
By A. V. MARKOVSKY.
4. On Interstitial Tubal Pregnancy,
By A. S. RASHKESS.
5. Sterilization of Hands and the Use of Rubber Gloves in Gynæcology,
By A. A. SITSINSKY.

1. **Third Stage of Labor.**—Budberg-Benninghausen reviews the various phases of the question as to the proper management of the third stage of labor. A great variety of opinions have been held and are still in force on this subject. The author thinks that the Credé method which is so widely in vogue everywhere, is not based upon a rational anatomic and physiological basis. After labor the uterus enters into the phase of physiological rest, and the violation of this rest produces atonic postpartum hæmorrhages. In order to remove the placenta, therefore, the uterus should not be displaced downwards, but should be on the contrary fixed in place, as the author suggests. The author's method, first described by him in 1898, is based on principles that are exactly opposed to those underlying Credé's method. The author recommends that the uterus be taken in one hand with the fingers passed behind it and over the fundus, and the thumb pressing on the anterior surface, while the other hand lies over the anterior aspect, parallel to the pubis, the thumb and the palm of the hand pressing on one side of the uterus, and the fingers on the other side. Pressure is made coincidentally with the contractions of the uterus and the womb is not pushed downward, but is fixed in position so that the placenta can escape when contractions take place. The pressure should increase with the increase of the contractions, and should gradually become less, not remitting suddenly as is too often done in Credé's method. If the contractions are not strong or frequent enough they may be induced artificially with the hands, but in no case must the fingers once grasping the uterus relax altogether from the grip until the placenta is delivered. If the abdominal walls are too thick to allow a convenient grasp of the uterus, then left hand may be introduced into the vagina, the two longest fingers separated and held in the fornices, and thus the uterus may be pushed upward toward the prom-

ontory while the right hand compresses it, as has been described. This method has proved efficient in about three thousand cases in which the author applied it.

5. Sterilization of Hands and Use of Gloves in Obstetrics.—Sitsinsky says that the consensus of authority stamps Ahlfeld's method of disinfecting the hands, with alcohol and bichloride of mercury as the one that gives the most perfect results, although it does not by any means secure perfectly sterile hands. He reviews in detail the literature of the subject and the statistical data concerning experiments with this method of sterilization. Gloves have been used for many years to protect the hands of surgeons. But these gloves were used not to protect the wound from infection, but to protect the surgeon from the strong disinfectants or from infection through septic material. Halstead, of Baltimore, was the first to use gloves with the idea of protecting the wound, in 1889, and published this fact in 1891. Since then a number of surgeons have used gloves made of various materials for this purpose. The gloves of Friedrich, introduced in 1898, are made of very thin rubber, without seams. In France, Quénu advocates the use of these gloves; in Germany, Döderlein, and a number of others. The present author reports the results of an investigation into the merits of the use of thin rubber gloves in obstetrics, as attested in two months' work at the Obstetric Institute of St. Petersburg. He concludes that for a simple obstetric examination, taking about one or two minutes, the gloves present no particular advantage over a well sterilized hand, and are difficult to resterilize. For the performance of obstetric manipulations, such as versions, and for the more complex examinations in difficult cases, these gloves are of no use, for they impair the sense of touch to a great extent. It is often necessary, after having examined a patient with gloves, to take off the gloves and to proceed to a second examination without them. As the gloves are too short to cover the hand as far as it enters into the woman in obstetric manipulations, and as the accumulations of sweat and moisture beneath the glove contain a large number of bacteria, even if the hands had been previously sterilized, the use of gloves under these conditions is not only a disadvantage, but actually dangerous. Besides there is a strong probability that if gloves shall be widely adopted in practice, that the careful disinfection of the hands now in vogue will be neglected and that matters thus will be worse than before. In septic cases, in examining and in operating upon septic organs, these gloves are of undoubted value, but in the ordinary obstetric routine they are a hindrance and a disadvantage.

BOSTON MEDICAL AND SURGICAL JOURNAL.

August 20, 1903.

1. Memorial Meeting to Morrill Wyman, M. D. Addresses of Henry P. Walcott, M. D.; David W. Cheever, M. D.; R. H. Fitz, M. D.; W. T. Councilman, M. D., and J. T. G. Nichols, M. D., before the Cambridge Medical Improvement Society, March 23, 1903.

2. The Surgical Treatment of Gastric Ulcer,

By JOHN C. MUNRO.

3. The Medical Treatment of Gastric Ulcer,

By HUBERT G. WILBUR.

2. Gastric Ulcer: Surgical Treatment.—Munro considers only the indications for surgical intervention and not its technics. At the present time it is not possible to lay down any hard and fast rules. It would be well if internists called early upon surgeons for consultation in their cases of gastric ulcer. If this were systematically done the time would soon arrive when both surgeons and internists would be able to recognize the surgical and the medical types of gastric ulcer. Undoubtedly the majority of simple ulcers are best treated by medical means, undoubtedly also the surgeon sees some cases too late. With our present knowledge the following types are best considered as surgical: Probable cases of relapsing acute hæmorrhage; cases with persistent hæmorrhage and anæmia; perforating ulcers, recurrent ulcers, pure and simple, attended with dyspepsia and starvation; cases in which ulcers have given rise to pyloric obstruction, to adhesions, to contractions of the body of the stomach; some cases of intractable dyspepsia, perhaps originating in an ulcer, and for which no definite pathology is known.

3. Gastric Ulcer: Medical Treatment.—Wilbur quotes Welch to the effect that cicatrices or open ulcers of the stomach are found in 5 per cent. of persons dying from all causes. Hence prophylaxis is a matter of importance. Some of the chief predisposing causes of gastric ulcer are: anæmia, hyperacidity, and traumatism, both internal and external. Treatment consists in (a) rest in bed; (b) absolute rest for the stomach until improvement occurs; (c) symptomatic medication. (a) The object of the rest in bed is conservation of the patient's strength. (b) The rest to the stomach promotes healing and minimizes the pain, vomiting, and hæmorrhage. It necessitates bowel feeding which is best carried on as follows: The bowel is flushed one hour before the nutritive enema is given with one pint of warm salt solution. When bowel feeding is first started the food should be given in small doses and not oftener than once in eight hours. Iron, in anæmic cases, may often be added to the enemata with advantage. The following enemata may be used to advantage: Defibrinated blood in amounts of five to six ounces at a time or, somatose one drachm, two eggs and four ounces of peptonized milk; the whole not to exceed eight ounces in quantity. With care bowel feeding may be persisted in for ten days to two weeks. (c) Symptomatic medication. Thirst is best controlled by means of enemata. Small pieces of cracked ice, by the mouth, may be cautiously given. Pain and vomiting can often be relieved by external applications, on flannel, of a mixture of one part chloroform to three parts of alcohol. In cases of obstinate vomiting the author has obtained good results from an enema of eighty grains of sodium bromide with one-half grain of cannabis indica. Hæmorrhage occurs in about one-half of all cases. It may be controlled by twenty to thirty drop doses of equal parts of turpentine and white of egg. For the collapse due to hæmorrhage flooding the colon with hot salt solution and strychnine and digitaline hypodermically will be of use.

AMERICAN MEDICINE.

August 22, 1903.

1. Enterostomy, with Report of Case,
By J. M. T. FINNEY, and OMAR PANCOAST.
2. Enteroptosis: Its Ætiology, Symptomatology, Treatment, and Prognosis (*To be continued*),
By THOMAS R. BROWN.
3. Course of Disease During Pregnancy, By E. CASTELL.
4. Treatment of Typhoid Perforation, with Report of a Case,
By WILLIAM C. VOORSANGER.
5. Ætiology of Dysmenorrhœa,
By J. THOMPSON SCHELL.
6. A Successful Treatment for Morphinism, with Report of a Case,
By J. BEN. JONES.

1. **Enterostomy.**—Finney and Pancoast report seven cases in which enterostomy was performed for the purpose of either nourishing the patient or draining a distended intestine. The two indications for enterostomy to which the authors wish to call special attention are the following: (1) To drain temporarily a distended intestine and allow it to regain its normal tone in cases of functional paralysis of the bowel of septic or other origin, especially in those cases following appendicitis with peritonitis. (2) To enable one to nourish a patient whose stomach and rectum are for any reason irritable and unable to absorb a sufficient amount of nourishment. The operation requires but a few minutes and can be performed under local anæsthesia. After the enterostomy is completed a rectal tube is introduced into the gut in both directions, and the bowel flushed with normal salt solution. While this is being done a little close observation will enable one to tell which is the proximal and which the distal portion of the bowel. This having been once established, food and medicines, as required, are introduced into the distal portion. It is remarkable the tolerance the bowel shows toward such treatment. Anything the normal stomach will tolerate seems to be well borne by the intestine. The intestinal fistula once established should be looked upon more as a mouth than as an anus.

4. **Perforation in Typhoid.**—Voorsanger reports one case of typhoid perforation operated on thirty-six hours after the diagnosis was made. The patient died. The author reviews the statistics of perforation in typhoid fever and shows that, while the condition is hopeless without operation, recovery will occur in about 25 per cent. of the cases if the operation is performed within twelve hours of the occurrence of perforation. The author does not believe that opening the abdomen of a typhoid patient is attended with any more evil consequence than is attendant on any laparotomy.

5. **Dysmenorrhœa.**—Schell classifies dysmenorrhœa into (1) local or pelvic; (2) general or constitutional; and (3) reflex. He does not believe that antelexions and small oses uteri can in themselves give rise to difficult menstruation. There must always be some complicating condition.

6. **Morphinism.**—Jones has never had any success in treating morphinism according to the usual text-book methods. Lately he has been converted to the theories of Dr. George E. Petzey, and finds his treatment for the morphine habit everything one could wish. Petzey holds that the essential pathology of morphinism is an auto-toxæmia caused chiefly by a congestion of the portal system. The sudden withdrawal of morphine from one of its victims deprives the heart of support and allows the autointoxication to get the upper hand. This is what produces the collapse and suffering which follows the withholding of morphine. The treatment which is recommended, and which is said to be followed by most brilliant results, is as follows: Purgation and Turkish baths are employed to overcome the toxæmia and the patient is supported with very large doses of strychnine. Later, to mitigate somewhat the patient's suffering from the sudden withdrawal of the morphine, hyoscine hydrobromide ($\frac{1}{150}$ grain) is given hypodermically as required. After the first thirty-six to forty-eight hours the hyoscine need not be used. Such a form of treatment is said to effect a cure in as little as four days. The patient should, however, be kept under observation for some time longer. In the great majority of cases relapses are not to be feared.

MEDICAL NEWS.

August 22, 1903.

1. Cardiopsis, By ALBERT ABRAMS.
2. Management of Breech Presentations,
By E. M. THOMAS.
3. Amber Yellow Glass in the Examination and Treatment of the Eyes,
By H. H. SEABROOK.
4. The Treatment of Chronic Catarrhal Deafness (Otitis Media Catarrhalis Chronica),
By GEORGE W. HOPKINS.
5. The Clinical Value of Blood Pressure,
By H. RICHARDSON.
6. Tying and Care of the Umbilical Cord,
By ALBERT S. HARDEN.
7. The General Practitioner and His Relation to Early Surgical Operations,
By E. B. MONTGOMERY.
8. Other Causes Than Syphilis for Paresis,
By H. PRESTON SIGHTS.

1. **Cardiopsis.**—Abrams considers cardiopsis—downward falling of the heart—to be more than a mere phenomenon. In his study he excludes from consideration all cases which occur in connection with congenital anomalies and all cases due to one of the following factors: Increased size and weight of the heart; aneurysms and new growths that displace the heart downward; adhesions, pleural and pericardial. For the remaining cases the following ætiological classification is suggested: (1) Voluntary cardiopsis; (2) cardiopsis associated with ptoses of abdominal viscera; (3) cardiopsis of accommodation; (4) primary essential cardiopsis, with no other cause, beyond a supposititious one, than impaired tonicity of the large blood-vessels supporting the heart. The majority of cases observed by the writer belong to this last class of cases. Little need be said of the symptomatology of this condition, since a definite diagnosis can

only be made with the x ray. "The pathognomonic signs of cardiophtosis are elicited by skiascopy. No description nor diagram can adequately describe the characteristic picture of cardiophtosis." So far as treatment is concerned, the author has this to say: "I have found nothing of avail in the treatment of my cases beyond a well fitting abdominal support with pressure exerted in the upper abdomen."

3. Amber Yellow Glass in the Treatment of the Eyes.—Seabrook has studied the effect of different colored rays of light upon the eyes. Blue glasses are among the worst for protective purposes. "London smoke" are better, but the protection is partial and at the expense of diminished vision. Blue-violet, or actinic rays, are the only ones capable of producing irritation or chemical inflammation of the eyes. The author has found that amber yellow glass, while it gives little protection against heat rays, gives almost perfect protection against chemical rays. The author reports his experience with this kind of glass in the treatment of eye affections. With an amber lens there is less congestion, lacrymation, photophobia and pain in examined eyes than when a white lens is used; it is therefore suitable for the examination by the oblique method of lesions of the cornea, iris, and ciliary body. In examinations of the fundus by the indirect method the yellow lens is more comfortable than the white, for both examined and examining eye. Some practice is needed before the yellow tint ceases to confuse the operator. In treatment the author has used yellow glass, with gratifying results, in the following conditions: asthenopia and ocular neuralgia; in various affections of the cornea; in one case of postoperative iritis; in cases having diminished vision and hyperæsthesia of the retina, as occurs with glaucoma or tobacco amblyopia; in several other conditions that we do not take the space to enumerate.

4. Chronic Catarrhal Deafness: Treatment.—Hopkins discusses the ætiology and pathology of chronic catarrhal otitis media before taking up its treatment. He asserts that the prognosis is more favorable than is generally admitted. Failures in treatment, which are too common, are due, either (1) to insufficient study of the ætiology and pathology of the case under treatment, or (2) to lack of pursuit of the treatment indicated. The form of treatment which in the author's hands has given the best results is the following: Inflation of the Eustachian tube and middle ear with warm vapor from a good nebulizer, after each hot air treatment. This latter is the measure on which the author depends for his most brilliant results. He applies hot air, under pressure, against the tympanum by means of a special condenser. The temperature at which the applications are made varies from 250° to 400° F. Such temperatures must be obtained gradually, and moist heat must be avoided at all costs. Treatment must be persisted in for as long, at times, as one or two years before satisfactory results are obtained. It will never be possible to restore the ear completely to its original condition. Many other methods of treatment are discussed and

favorably mentioned. In cases with stenosis of the Eustachian tube electrolysis, by means of Dench's gold electrode, will, in the hands of experts, give brilliant results. The author mentions a number of precautions to be observed, neglect of which will lead to worse than failure.

5. Blood Pressure.—Richardson finds the instrument for measuring blood pressure perfected by Hill and Bernard the most practical for clinical use. By this instrument the maximum or systolic pressure, the mean or arterial pressure, the loss of pressure in the artery during the cardiac cycle representing the flow of blood into the capillaries, and by difference the capillary pressure, can be measured. Clinically, the observations of the blood pressure are of the greatest importance. Nowhere is this better shown than in the early diagnosis of Bright's disease; it is probable that in this disease changes in the blood pressure occur before the appearance of albumin in the urine. Some other conditions in which the blood pressure is high are melancholia simplex, acute mania, mania with depression, locomotor ataxia, arterial sclerosis, and paresis. Richardson's investigations further go to show that a majority of the drugs usually relied upon to reduce blood pressure are of little avail. Thyroid extract is among the best, but it has grave objections. The Shott bath treatment has given the best results. The temperature of the water should always be between 96° and 101° F.

8. Causes of Paresis.—Sights concludes (1) that syphilis is present in a large percentage of cases of paresis. (2) That it is certainly an important factor in disturbing the peace of mind in a susceptible and sensitive individual whose pessimistic tendency is hereditary. (3) That in the majority of cases where syphilis is present, the mental worry and mental strain keep the brain in a state of hyperæmia, causing loss of sleep and appetite that results in paresis, in the same way that any other mental worry will precipitate this disease in a susceptible individual. (4) The prevailing cause of paresis is an overworked mind, centralizing the mental energies without relaxation. Whether this is due to worry over financial troubles, or syphilis, or to a concentration of the mental forces on any other subject, does not matter.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

August 15, 1903.

1. Recent Investigations Bearing on Infectious Diseases of Unknown Ætiology (*To be continued*),
By LUDVIG HEKTOEN.
2. Requirements for Admission to Medical Schools.
By N. S. DAVIS, JR.
3. Cooperative Methods for Increasing the Usefulness of Statistical Classifications of Causes of Death.
By CRESSY L. WILBUR.
4. The Proper Perineal Prostatectomy Incision,
By NICHOLAS SENN.
5. The Essential Principles of Infant Feeding and the Modern Methods of Applying Them,
By THOMAS MORGAN ROTCH (*Concluded*).

2. Requirements for Admission to Medical Schools.—Davis advises that medical courses be

so arranged that the students will graduate at from twenty-four to twenty-five years of age. The preliminary requirements must therefore not be excessive. An ideal course would be one which at the end of six years would lead to the granting of the degrees of A. B. or B. S. and M. D. The non-medical part of such a course should cover: As much general education as is generally taught in our best high schools; inorganic chemistry and qualitative analysis; mechanics, light, heat, and electricity; general biology; some comparative anatomy; French and German; some botany; experimental psychology, and logic. One of the most needed reforms at the present time is to stop admitting students to our medical schools, on certificates of general education obtained from various sources, and to require of all who wish to enter, thorough examinations in a few required subjects.

4. Perineal Prostatectomy Incision.—Senn believes that perineal prostatectomy has come to stay, and that it will supplant the suprapubic operation. The indications for the operation cannot yet be rigidly defined. Two things must be kept in view in making the external incision. (1) To expose the prostate to sight and touch as freely as safety will permit. (2) To provide for free drainage of the bladder and perineal wound. Neither the median incision nor the incisions proposed by Kocher or Zuckerkandl fulfil these two requirements. The author has therefore devised a special incision and operation, as follows: The incision is in the form of an inverted Y whose stem is the usual median incision. The lateral branches are carried to a point half way between the anal margin and the tuberosities of the ischium, cutting through about the same structures as are involved in the lateral operation for stone in the bladder. The wound should be deepened by blunt dissection and hæmorrhage must be arrested as it occurs. The rectum having been detached from the membranous urethra, the prostate will become visible in the depth of the wound. The lips of the wound are now thoroughly retracted and the second step in the operation is carried out as follows: The membranous urethra is incised upon a grooved staff previously introduced into the bladder. Wheelhouse's director is then introduced upon the staff which is then withdrawn. The index finger of the left hand, using the director as a guide, dilates the prostatic urethra and, entering the bladder, hooks itself about the prostate which it draws gently downward and forward into the wound. The capsule of the prostate is incised transversely and its left lobe is enucleated with the right index finger. This is usually easy, but at times it is impossible. By a reversal of the process just described the right lobe is removed. If it is found impossible to remove the prostate by enucleation, *morcellement* must be resorted to. The author is in favor of performing a preliminary cystotomy on patients who are to be subjected to a prostatectomy. After prostatectomy the bladder should be invariably drained by means of a soft rubber tube and the perineal wound by means of strips of iodoform gauze. The latter are removed at the end of five

or six days, but the bladder drainage tube, through which the bladder is irrigated, must be kept in place until the condition of the urine warrants the suspension of the intravesical medication.

5. Feeding of Infants.—Rotch writes an elaborate paper which will be found useful for reference. It is a presentation of the percentage system of infant feeding and the scientific basis on which the system is founded. It will always be more or less impossible to feed infants by rule of thumb. Each case must be studied by itself. In starting artificial feeding it is always well to begin with a weak mixture and gradually increase the strength. Artificial foods for infants are useless unless prepared with milk. Next to breast milk, laboratory milk, prepared according to the proper formula, will give the best results.

MEDICAL RECORD.

August 22, 1903.

1. Case of Splenomedullary Leucæmia Successfully Treated by the Use of the Röntgen Ray,
By NICHOLAS SENN.
2. The Management of Cases of Pulmonary Tuberculosis in the Dispensary, By JAMES ALEXANDER MILLER.
3. Secret Poisons and Their Uses in Ancient Times,
By J. W. WAINWRIGHT.
4. Purpura Hæmorrhagica Fulminans, with Report of a Case,
By HENRY GRAHAM MACADAM.
5. A Study of a Scarlet Fever Epidemic,
By ALFRED C. HAVEN.
6. A Preliminary Report on Some Experiments with the McGraw Elastic Ligature, By M. S. KAKELS.
7. Poisoning With a Small Dose of Quinine,
By M. GOLTMAN.
8. Strangulated Oblique Inguinal Hernia in a Child Eleven Days Old; Operation, By J. HUTCHINGS WHITE.

1. Splenomedullary Leucæmia; X Ray Treatment.—Senn reports his case quite fully. During the course of the treatment the use of the x ray had to be suspended for a day or two on several occasions, owing to high temperature and other symptoms of intoxication. The constitutional symptoms became very prominent at the time the spleen first presented indications of progressive decrease in its size, about three weeks after the beginning of the treatment. A reproduction from a photograph is given, which shows the size of the spleen before and after the x ray treatment. The reduction in size is remarkable. The blood count and the patient's general condition, at the time she was discharged from the hospital, showed that a cure had been obtained. The author concludes his article with the following remarks: "I have seen many cases of the different varieties of leucæmia, but this is the only one that has recovered, and this exceptional result I attribute entirely to the prolonged use of the x ray. We have been less fortunate with this new therapeutic resource in the treatment of malignant diseases. I have so far not seen a single case of either carcinoma or sarcoma benefited by this treatment. There can be no longer any doubt in reference to the microbic origin of leucæmia or of the antimicrobial action of the Röntgen ray. The transillumination of the affected bones undoubtedly accomplished its share in destroying the microbes of

the general infective process, as the pain and tenderness disappeared entirely, as well as the occipital headache, during the early part of the treatment. It appears to me that the microbes of splenomedullary leucæmia are very susceptible to the destructive action of the x ray, as the response to this treatment is very prompt and often violent, followed by a speedy return to normal of the spleen, medullary tissue, and the histologic constituents of the blood. The curative power of the x ray in pseudoleucæmia and genuine leucæmia promises to accomplish what heretofore has not been obtained by any kind of medication, and seems to prove that ætiologically at least the affections are analogous or at any rate closely allied."

2. Tuberculosis: Dispensary Treatment.—

Miller describes the routine treatment followed at the Vanderbilt Clinic. Its underlying principles are: (1) Rest; (2) Fresh air; (3) Food; (4) Drugs. We need not go into details, for the practice described does not differ from that now generally in vogue. The patients are kept overfed; two to three quarts of milk and from six to ten raw eggs a day being added to the three plain meals. The only drugs generally used are cathartics, and, in winter, cod-liver oil. One feature of the treatment merits special commendation. The management places at the disposal of the dispensary a trained nurse, whose duty it is to visit the home of every new tuberculous patient presenting himself for treatment. The nurse reports on the conditions found, and makes suggestions as to the best ways of regulating and supervising the patient's home life. If the home conditions are found too impossible, aid is sought from the Charity Organization Society, or elsewhere, and an attempt is made to obtain better general conditions. The results obtained by this line of treatment are said to be very encouraging.

6. McGraw's Elastic Ligature.—Kakels reports the results of experiments on seven dogs with McGraw's elastic ligature. Four of the operations were gastroenterostomies and three were enteroenterostomies. The author agrees with McGraw as to the advantages of this method of performing intestinal anastomoses. ". . . this method, barring the disadvantages caused by its slow action in cutting through, is far superior to all others for simplicity, rapidity, and efficiency. . . ."

7. Quinine Poisoning.—Goltman reports the following symptoms produced, probably, by a very small dose of quinine in a man aged thirty-five years. Tingling, followed by large wheals in different parts of the body, which quickly coalesced. The wheals gradually became purplish, the patient then became swollen and was in considerable pain. The following morning bullæ formed over the affected parts. Two days later the bullous formation was marked, leaving in places raw surfaces. The temperature reached 101.5° F.; the pulse 112. The patient had suffered from similar attacks, always after the ingestion of quinine. Goltman considers that the condition is a toxic angeioneurosis, in no way related to

the urticaria which is at times produced by quinine, and which is due to gastric irritation.

8. Strangulated Hernia in a Child Eleven Days Old.—White's patient recovered from the operation. He believes that never before has a herniotomy been performed in a child so young. The condition of the gut showed that the operation was imperatively called for, yet, before operation, the child seemed fairly free from pain, there was no vomiting or other urgent symptom.

MISCELLANEOUS.

Practical Experiments in the Treatment of Anæmic Conditions.—Dr. Fritz Euler-Rolle (*Wiener klinische Rundschau*, March 29, 1903) gives the results of the use of pepto-mangan (Gude) in a number of his cases. He considers the presence of manganese of value and the fact that the solution is neutral enables the weakest stomach to bear it. Euler-Rolle's first case was one of tabes dorsalis with gastric crises and loss of weight. Poultices over the epigastrium and the medicine resulted in relief from pain and improved physical condition. In an anæmic woman of twenty-four, he relieved hitherto uncontrollable vomiting. Nutrition was kept up in a satisfactory manner in a case of inoperable cancer of the œsophagus, by giving the pepto-mangan along with eggs and milk, with morphine hypodermatically to relieve pain. In diabetes mellitus good results were had in the accompanying anæmia. In one case, phthisis with intestinal ulcers and amyloid changes in the internal organs the results were poor, the diarrhœa increasing under the remedy. The author mentions two cases of chlorosis, the first in a girl, eighteen years of age, who was pale and suffered from persistent headache, buzzing in the head, œdema of lower limbs, palpitation, and weakness. The blood count showed 3,100,000 red cells. The color index was 20. Under pepto-mangan, five tablespoonfuls daily for eight weeks, the improvement was surprising, the hæmoglobin percentage rising to 50 and the count showing 4,200,000 red cells. The girl was completely restored to health. The second case was in a girl, twenty-one years of age, who had gastric pains and aversion to food with anæmia and emaciation. Three weeks of pepto-mangan, four tablespoonfuls daily, completely removed all those symptoms.

Correction of Knee Joint Deformity.—Whitman (*American Journal of the Medical Sciences*, May, 1903) believes that in cases of persistent flexion of the knee joint with slight subluxation of the tibia, instead of using the latter bone as a lever it is of advantage to use the femur. For this purpose, after the patient is thoroughly anæsthetized, he is turned face downward upon the table and pillows placed beneath the abdomen until the anterior surface of the tibia rests evenly upon the table. It is then held firmly against the table whilst the operator begins forcible massage upon the tense hamstring tendons, pressure being begun half way up the thigh. As the resistance lessens, the trunk is lowered, until finally the limb is straightened, although this may not be accomplished at the first operation. There is little pain following the operation.

Book Notices.

Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition. By Professor Dr. CARL VON NOORDEN. Authorized American Edition Translated under the Direction of Boardman Reed, M. D., Professor of Diseases of the Gastrointestinal Tract, Hygiene and Climatology, Department of Medicine, Temple College, Philadelphia. Part I, Obesity: The Indications for Reduction Cures. Pp. x-11 to 59. Part II: Nephritis. Pp. 5 to 112. (Price, \$1.50.) Part III: Membranous Catarrh of the Intestines. Pp. vi-11 to 64. (Price, 50 cents.) New York: E. B. Treat & Co., 1903.

It is only in recent times that disorders of metabolism and nutrition have been studied with any degree of thoroughness, and now that they are being investigated more scientifically they bid fair to attract a great deal of notice. To the excellent work of investigation and research which has been accomplished by such men as the author is due the fact that we have been able to make any advance in this all-important branch. Entirely too little has been written in the English language upon the subject and every one will welcome the translation of standard works of this sort.

In handling the subject the author displays a boldness, originality, and disregard for previous opinions seldom seen in medical works. By personal experiment he has demonstrated to his own satisfaction the truth of his assertions. Although some of his views will meet with undoubted opposition on the part of many readers, the honest opinion of an observer like von Noorden, based upon scientific experiments, cannot fail to give his writings great weight.

The first of these two volumes is devoted to obesity. It is divided into two parts, the first dealing with the indications for cure in simple obesity in otherwise healthy subjects, and the second with the association of obesity with other diseases. Throughout the book the author insists upon the absolute necessity of the accurate diagnosis of the exact form of obesity and the use of the proper treatment in each case. The indiscriminate use of one form of treatment for all forms of obesity is deprecated. Whenever possible, the author urges sanatorium treatment. In cases of obesity complicated with cardiac diseases, an obesity treatment may occasionally cure the patient of his other disease. In the case of obesity complicated with nephritis, the author points out the absolute necessity of strengthening the heart muscles, which can only be accomplished in some cases by preventing any tendency to obesity.

The second volume deals with nephritis. After reviewing customary treatment in renal disease, the author goes into the facts of metabolism as a basis for dietary regulations to be adopted in the treatment of these conditions, closing with a chapter on his own treatment for acute and chronic nephritis. He distinguishes very clearly between the treatment of acute and that of chronic cases. He condemns the indiscriminate use of

milk in all cases, and recommends the use of red meats in many chronic cases. By adding a little carbonate of calcium to the milk, the author maintains, the excretion of phosphorus in the urine decreases, the calcium also rendering the milk more digestible. He occasionally uses alcohol in his treatment of nephritis. He opposes the promiscuous use of water, alleging that the increase of urine caused thereby is good only in the acute, and not in the chronic, cases. By sweating, little if any of the poison can be eliminated. He points out most strongly the importance of carefully watching the heart.

It is seldom that one finds a translation put into as good English as we find in these two volumes, and Dr. A. C. Crofton deserves great credit for placing these books within the reach of all English-speaking readers. The books themselves, although very concise, contain a great deal of valuable material, and are greatly to be commended.

Formerly very little was understood of membranous catarrh of the intestines, and until recently most authors held very conflicting views upon the subject. The majority of physicians in active practice frequently meet with these cases, and a thorough knowledge of them is therefore absolutely essential. In this little volume the author, after reviewing the various theories that have been advanced as to pathology, gives his own views, which are that the disease is due to some morbid, nervous reflex process. As regards the treatment of the disease, the author approaches the subject in what appears to be a most rational method founded upon numerous successful results. This combines the building up of the general system with the relief of the accompanying constipation. By effecting a complete and permanent disappearance of the constipation the accompanying colica mucosa will also be made to disappear. Far from recommending a protective dietary, the author emphasizes the necessity of using a very coarse diet, especially at the beginning, even though this may cause temporary inconveniences. The same fearlessness and iconoclastic tendency shown in most of his writings can be found in this. As von Noorden bases his conclusions upon numerous scientific experiments, and is able to report many rapid cures with the method he advocates, his treatment, although somewhat radical, must necessarily meet with general respect. We cannot recommend this volume too highly.

Surgical Asepsis. Especially Adapted to Operations in the Home of the Patient. By HENRY B. PALMER, M. D., Consulting Surgeon to the Central Maine General Hospital. With 90 Illustrations. Philadelphia: F. A. Davis Company, 1903. Pp. iii-231. (Price, \$1.25.)

This little handbook contains nothing new, and to trained surgeons it will be of little interest. For those not practised in the fundamental methods of the art, however, it will be found of much practical help in connection with the preparations for surgical and obstetrical operations and with the after-care of patients.

The Mycology of the Mouth. A Textbook of Oral Bacteria. By KENNETH WELDON GOADBY, D. P. H., Camb., L. R. C. P., M. R. C. S., L. D. S., Eng. Bacteriologist and Lecturer on Bacteriology, National Dental Hospital, Sen. Dental Surgeon, Seamen's Hospitals; Hon. Lecturer on Hygiene of the North London School of Tropical Medicine; Late Demonstrator of Practical Dentistry, Guy's Hospital Dental School. London, New York, and Bombay: Longmans, Green, & Co., 1903.

This book is intended primarily for the use of dental students. Consequently the first eighty pages are devoted to the general principles of bacteriology, including classification, biology, methods of cultivation, etc. The remainder of the volume is devoted to a full description of the bacteria and organisms belonging to higher groups which occur in the oral cavity.

The most interesting chapter is that on dental caries. The author considers it a phenomenon closely allied to putrefaction. The significance of certain food-stuffs as an aetiological factor is well brought out. The bacteria which play a rôle in the disintegration of enamel, dentin, and cement are divided into two groups, according to their functions, the first producing acids and the second liquefying. The former attack the calcium salts of the teeth, and the second dissolve the decalcified matrix. The superficial layers contain a preponderance of the liquefying species, while the acid-forming bacteria are mainly found deeper.

Other subjects treated of in detail are the bacteria in tooth pulps, the bacteria in dentoalveolar abscesses, and pyorrhœa alveolaris. Under the heading of Ulcerative Stomatitis we miss a description of the bacillus of Vincent. The author, however, confirms Bernheim's work in finding the spirilla constantly present.

The chief value of the book to the practical dentist will be in the attention called to the urgent need for asepsis. The author emphasizes the fact that pathogenic organisms, such as the tubercle bacillus, the diphtheria bacillus, and the pneumococcus, may exist in the mouths of people manifesting no symptoms of disease.

Allgemeine Semiotik des Erbrechens. VON DR. MED. W. JANOWSKI, Primärarzt am Kindlein Jesu-Hospital zu Warschau, etc. Jena: Gustav Fischer, 1903. Pp. 108.

In this pamphlet the author gives a most exhaustive summary of the subject of vomiting, pointing out its importance as a symptom of various diseases. The book is divided into two parts, the first, which is very short, dealing with the importance of careful examination, especially the taking of a complete history, and including a superficial examination of the vomitus. The second part deals in a comprehensive manner with the diagnostic and prognostic significance of the act of vomiting, and also treats most fully of the facts to be learned from the vomitus itself. Individual chapters are devoted to such subjects as single and repeated acts of vomiting, vomiting with or without difficulty, etc.; also to such phys-

ical properties of the vomitus as the amount, the consistence, the color, and the significance of the presence of blood or mucus, ending with two very satisfactory chapters on the chemical and microscopical examination of the stomach contents.

The book is to be commended for its completeness and excellence.

Transactions of the American Röntgen Ray Society. Third Annual Meeting. Chicago, Ill.

This volume contains fourteen papers read at the third annual meeting of the society, at Chicago, in December, 1902. The papers are short and of a practical nature, dealing for the most part with methods and technics.

The Johns Hopkins Hospital Reports. Volume X. Nos. 6, 7, 8, and 9.

In these numbers there is an interesting article by W. G. Mac Callum on Regenerative Changes in the Liver After Acute Yellow Atrophy. It is a critical study of the regenerative changes that occur during or after those infectious processes accompanied by great destruction of liver substance. Marchand's views are still further confirmed in this article, and the author describes a case in which such changes occurred. McCrae and Mitchell contribute a monograph on The Surgical Features of Typhoid Fever, with many statistical data of value. Other papers are Metabolism in Albuminuria, by C. P. Emerson; and The Symptoms, Diagnosis, and Surgical Treatment of Ureteral Calculus, by Benjamin R. Schenck.

BOOKS, ETC., RECEIVED.

Diseases and Injuries of the Eye, With Their Medical and Surgical Treatment. By GEORGE LAWSON, F. R. C. S., Eng., Surgeon Oculist-in-ordinary to Her Majesty, the Late Queen Victoria; Late Member of the Council of the Royal College of Surgeons of England; Consulting Surgeon to the Royal London Ophthalmic Hospital and to the Middlesex Hospital. Sixth Edition, with 249 Illustrations. Revised and in Great Measure Re-written by ARNOLD LAWSON, F. R. C. S., England, Assistant Surgeon to the Royal London Ophthalmic Hospital; Ophthalmic Surgeon to the Paddington Green Children's Hospital; Consulting Ophthalmic Surgeon to the Royal Hospital for Incurables, Putney, and to the Hospital of St. John and St. Elizabeth, St. John's Wood. London: Smith, Elder & Co., 15 Waterloo Place, 1903. (All rights reserved.) Pp. xx-538.

Thirty-ninth Annual Report of the Trustees of the Boston City Hospital, including the report of the Superintendent Upon the Hospital Proper, The South Department for Infectious Diseases, The Relief Station at Haymarket Square, The Convalescent Home at Milton Lower Mills and also The Medical and Surgical Statistics, House Rules. With Rules for Admission, Discharge, and Government of Patients, Prospectus of Training School for Nurses, etc. For the Thirty-ninth Year. February 1, 1902, to January 31, 1903, Inclusive. Boston: Municipal Printing Office, 1903. Pp. 189.

University of California Publications. Physiology. Volume 1, No. 1, pp. 1-3. April 27, 1903. On a Method by Which the Eggs of a Sea-Urchin (*Strongylocentrotus Purpuratus*) Can Be Fertilized with the Sperm of a Starfish (*Asterias Ochracea*). By JACQUES LOEB. The University Press, Berkeley, California.

Sight and Hearing in Childhood. By ROBERT BRUDENELL CARTER, F. R. C. S., Consulting Ophthalmic Surgeon to St. George's Hospital, and ARTHUR H. CHEATLE, F. R. C. S., Assistant Aural Surgeon to King's College Hospital, Surgeon to the Royal Ear Hospital. London: The Scientific Press, Limited, 28 and 29 Southampton Street, Strand, W. C. Pp. viii-119. Price 2 shillings net.

Aseptic Preparation for Surgical Work in Country Practice. Remarks at a meeting of the Clinical Society of the New York Post-Graduate Medical School and Hospital. By Dr. C. AM ENDE. Reprint from the Post-Graduate, March, 1903. Pp. 4.

The Prognosis and Treatment of Syphilitic Disease of the Nervous System. Being a Lecture delivered at the Medical Graduates' College and Polyclinic. By Sir WILLIAM R. GOWERS, M. D., F. R. S., Consulting Physician, University College Hospital; Physician to the National Hospital for the Paralyzed and Epileptic. Reprinted for the Author from the British Medical Journal, April 4, 1903. London: Printed at the office of the British Medical Journal, 420 Strand, W. C., 1903. Pp. 15.

U. S. Department of Agriculture, Bureau of Animal Industry—Bulletin No. 39. D. E. SALMON, D. V. M., Chief of Bureau. Index-Catalogue of Medical and Veterinary Zoology. Part 3 (Authors: C to Czygan). By CH. WARDELL STILES, Ph.D., Consulting Zoologist of Bureau of Animal Industry; Zoologist of U. S. Public Health and Marine-Hospital Service, and ALBERT HASSALL, M. R. C. V. S., Acting Assistant Zoologist of Bureau of Animal Industry. Washington: Government Printing Office. 1903. Pp. 324.

Die Rekto-Romanoskopie auf anatomisch-physiologischer Grundlage. Methodologische Studien nebst Klinischen Ergebnissen und Hinweisen. Von Professor Dr. JULIUS SCHREIBER, Direktor der Königl. Medizinischen Universitäts-Poliklinik zu Königsberg i. P. Mit 3 Tafeln und Abbildungen im Text. Berlin: 1903, Verlag von AUGUST HIRSCHWALD, N. W. Unter den Linden 68. Pp. 131.

Die Topographie der Niere und ihre Bedeutung für die Nieren Chirurgie. Von Dr. M. ZONDEK, Berlin. Mit Abbildungen im Text. Berlin: 1903, Verlag von AUGUST HIRSCHWALD, N. W. Unter den Linden 68. Pp. 104.

The Practical Medicine Series of Year Books. Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Issued Monthly Under the General Editorial Charge of GUSTAVUS P. HEAD, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume VII. Pediatrics, Edited by ISAAC A. ABT, BILLINGS, M. S., M. D., Head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago, and J. H. SALISBURY, M. D., Professor of Medicine, Chicago Clinical School. May, 1903. Chicago: The Year Book Publishers, 40 Dearborn Street. Pp. 316. Price \$1.50.

The Practical Medicine Series of Year Books. Comprising Ten Volumes of the Year's Progress in Medicine and Surgery. Issued Monthly Under the General Editorial Charge of GUSTAVUS P. HEAD, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume VII. Pediatrics, Edited by ISAAC A. ABT, M. D., Assistant Professor of Medicine (Pediatrics Department), Rush Medical College. Orthopedic Surgery, Edited by JOHN RIDLON, A. M., M. D., Professor of Orthopedic Surgery, Northwestern University Medical School. June, 1903. Chicago: The Year Book Publishers, 40 Dearborn Street. Pp. 232. Price \$1.25.

A Thesaurus of Medical Words and Phrases. By WILFRED M. HARTON, M. D., Assistant to Professor of Materia Medica and Therapeutics, and Lecturer on Pharmacy, Georgetown University, Washington, D. C.; and WALTER A. WELLS, M. D., Demonstrator of Laryngology and Rhinology, Georgetown University, Washington, D. C. Handsome octavo of 534 pages. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Flexible leather \$2.50 net; with thumb index, \$3.00 net.

The Latin Grammar of Pharmacy and Medicine. By D. H. ROBINSON, Ph.D., late Dean of School of Arts, and Professor of Latin Language and Literature, University of Kansas. With an Introduction by L. E. SAYRE, Ph.M., Professor of Pharmacy in, and Dean of, Department of Pharmacy, University of Kansas. Fourth Edition, with Elaborate Vocabularies, thoroughly Revised by HANNAH OLIVER, A. M., Assistant Professor of Latin, School of Pharmacy, University of Kansas. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1903. Pp. xv-273. Price \$1.50 net.

Plain Hints for Busy Mothers. By MARIANNA WHEELER, Superintendent of the Babies' Hospital, New York, since 1891; Graduate of the Training Schools of the New York Hospital and Sloane Maternity Hospital and Author of "The Baby." Illustrated by F. M. Miller. New York: E. B. Treat & Company, 1903. Pp. 54. Price 35 cents.

Miscellany.

The Benefits Conferred by a Classical Training on Medicine.—Some years ago, a writer in the *Montreal Star*, in the course of a discussion then in progress on the subject of Latin verse making, gave as a proof that almost any sense or nonsense might be reproduced in Latin verse by an expert, the accompanying clever rendering in elegiacs of an advertisement of a quack pill that read as follows: "If you want a real, fine, unsophisticated family pill, try Rumbolt's liver-encouraging, kidney-persuading, silent perambulator, twenty-seven in a box," etc.

Si forte ægrotis poscas quae detur alumnis
Egregiæ pilulam simplicitatis? Adest.
Hæc jecur instigat, stimulos hæc renibus addit,
Ambulat arcanas hæc taciturna vias.
Disce repertorem: medicus Rumboltius audit;
Ter septem et senas pyxis aperta dabit.

More and more it is becoming customary for the physician's *prescriptio* to be written in English. If only we could encourage the practice of writing the patent medicine monger's *proscriptio* in Latin! Apart from the stimulus that would be given by this method of advertising to the cultivation of the polite art of Latin verse making, especially among physicians, to whom it might afford an interesting and intellectual pastime, as well as a field of lucrative employment "on the side," it would have the further inestimable advantage of materially limiting the harm done to the general public by quack medicines. *O si sic omnes (proscriptiones)!*

Skin Grafting with Pig Skin.—Dr. W. Flegenheimer (*Virginia Medical Semi-Monthly*, June), following Dr. Hunter McGuire's case, reports a case in which, owing to the impracticability of obtaining human skin for grafting purposes in a large granulating area of the forearm, a five weeks' old pig was procured and chloroformed, and after cleaning and shaving the belly, more than enough skin to cover the exposed surface of the wounded arm was dissected. The grafts were irregular in shape, and varied in size from that of a silver dollar to that of a dime. They were of the entire thickness of the skin. As fast as the grafts were removed from the pig, all subcutaneous fat was carefully removed, and they were placed in a vessel containing normal salt solution. The arm was irrigated with 1:3000 bichloride solution, followed by salt solution. It was then thoroughly dried and the pig skin grafts placed upon it. The dressing was removed after seven days, when every one of the grafts was found to have taken firm hold. The wound healed completely, "and, strange as it may appear, it has a nice growth of fine hairs upon it."

A New Species of the Genus Homo.—The *Windham Journal* is responsible for the startling assertion that "several Big Hollow people attended the temperance lecture at Hensonville" recently. As the lecture is stated to have been "a continued feast of good things from beginning to end," the principle of natural selection vindicated itself in the appropriateness of the presence of big hollow people.

"Witchcraft" in the Twentieth Century.—According to the *Pacific Medical Journal* for August, information from Mexico states that Mrs. Mattina Rodriguez gave birth to a child which had but one eye, and that in the centre of the forehead, and, instead of ears, the offspring had a pair of small horns just above the temples. It was covered with hair all over the body, and its legs were united down to the knees. The child lived six hours. When the news of the birth of this monstrosity reached the people of the neighborhood, they began to assemble, saying that it was God's punishment, that Mrs. Rodriguez was bewitched, and that she deserved to be lynched to appease God's wrath. Fortunately, this news reached the police in time to have the parish priest explain that there was nothing superhuman about the birth of this unfortunate being, as many other similar births had taken place.

Anatomical Study of a Dwarf.—Hektoen (*American Journal of the Medical Sciences*, May, 1903) has made a careful study of the skeleton of a dwarf 95 centimetres in length. The patient was remarkable for the shortness and deformity of the limbs. A chemical examination of the thyroid gland showed that it contained very much less iodine than the normal thyroid gland. The bones were light and spongy, occasionally misshapen and large at the ends. The pelvis was greatly deformed, and there was a sharp angulation not due to caries, between the eleventh and twelfth thoracic vertebræ. The most remarkable feature was the towering cranium; the skull contained an enormous number of Wormian bones; the face was receding. There were some anomalies in the growth of the teeth. Hektoen discusses rickets, cretinism, chondrodystrophia foetalis and osteogenesis imperfecta. Rickets is excluded in this case because the changes must have occurred before the eighth week of intra-uterine existence, and because the bones were not dense and hard as they usually are after recovery from rickets. Osteomalacia can be excluded, because the bones showed no trace of sclerosis. The patient was not a true dwarf, and in many respects the case resembled chondrodystrophia foetalis, but this is a disease of which little is known. The same is true of osteogenesis imperfecta. It is possible that the two conditions existed together.

Official News.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending August 29, 1903.

PERLEY, HARRY O., Major and Surgeon. Relieved from further duty at St. Louis, Mo., and ordered to Fort Riley, Kansas, for duty.

SHILLOCK, PAUL, Major and Surgeon. Relieved from further duty at Fort Riley, Kansas, and ordered to Fort Meade, S. D.

SHOOK, JAY R., First Lieutenant and Assistant Surgeon. Granted two months' leave of absence.

SMART, WILLIAM M., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Leavenworth, Kansas, and ordered to Vancouver Barracks, Wash., for assignment to duty.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending August 29, 1903:

BROWN, E. M., Assistant Surgeon. Detached from the Naval Hospital, Newport, R. I., and ordered to New York.

CURL, H. C., Passed Assistant Surgeon. Detached from the Naval Hospital, Mare Island, Cal., and ordered to New York.

DRAKE, N. H., Surgeon. Detached from the *New York* and ordered to the *Maine*.

Du BOSE, W. R., Surgeon. Detached from the *Maine* and ordered to duty in the Bureau of Medicine and Surgery.

ELLIOTT, M. S., Surgeon. Detached from the *New York* and ordered home to wait orders.

LEWIS, D. O., Surgeon. Ordered to the *New York* as Fleet Surgeon of the Pacific Squadron.

MURPHY, J. F., Surgeon. Detached from the *Monocacy* and ordered to the *Wisconsin*.

THOMPSON, J. C., Assistant Surgeon. Detached from the *Chesapeake* and ordered to the Naval Academy.

Public Health and Marine Hospital Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the surgeon-general, Public Health and Marine Hospital Service, during the week ending August 22, 1903:

Smallpox. United States.			
Place.	Period.	Cases.	Deaths.
California—Sacramento	August 1-8	1	
California—San Francisco	August 2-9	2	
Colorado—Denver	July 11-18	9	
Colorado—Denver	July 18-25	1	
Illinois—Chicago	August 1-8	8	
Illinois—Chicago	August 8-15	11	
Massachusetts—Fall River	August 8-15	4	
Massachusetts—Taunton	August 1-8	4	
Michigan—Detroit	August 8-15	1	
Michigan—Port Huron	August 8-15	1	
Minnesota, etc.—Minneapolis	July 27-August 3	1	
In 7 counties at 11 localities		29	1
Nebraska—Omaha	August 8-15	2	
Ohio—Cleveland	August 8-15	1	
Ohio—Dayton	August 8-15	1	
Ohio—Toledo	August 8-15	1	
Pennsylvania—Pittsburgh	July 25-August 1	32	2
Pennsylvania—Pittsburgh	August 1-8	39	9
West Virginia—Wheeling	June 1-30	9	3
Wisconsin—Milwaukee	August 1-8	3	
Smallpox—Foreign.			
Austria—Prague	July 18-August 1	7	
Belgium—Antwerp	July 26-August 1	3	1
Belgium—Brussels	July 26-August 1	2	
Brazil—Rio de Janeiro	July 12-19	7	
Brazil—Rio de Janeiro	July 19-26	6	
Chile—Antofagasta	June 1-30	5	3
China—Shanghai	July 7-14	1	1
Colombia—Bocas del Toro	July 28-August 4	1	
Germany—Bremen	July 26-August 1	1	1
Emigrant.			
Great Britain—Birmingham	July 26-August 8	3	1
Great Britain—Dublin	July 26-August 1	1	
Great Britain—Dundee	July 18-25	2	
Great Britain—Leeds	July 26-August 8	11	3
Great Britain—Liverpool	August 1-8	5	1
Great Britain—London	July 26-August 1	3	
Great Britain—Manchester	July 26-August 1	3	
Gr. Britain—Newcastle-on-Tyne	July 19-August 1	9	
Gr. Britain—Sheffield	July 26-August 1	2	
India—Bombay	July 14-21	10	
India—Calcutta	July 11-18	2	
Mexico—City of Mexico	July 18-26	16	
	July 26-August 2	7	
	August 2-9	5	2
Russia—Moscow	July 18-25	1	1
Russia—Odessa	July 26-August 1	1	
Russia—St. Petersburg	July 18-25	9	1
Russia—Warsaw	June 20-27	5	
	July 1-18	3	
Smallpox—Insular.			
Philippine Islands—Manila	June 13-July 11	9	
Yellow Fever.			
Brazil—Rio de Janeiro	July 12-19	3	
	July 19-26	1	
Colombia—Panama	August 3-10	1	
Costa Rica—Limon	July 30-August 1	3	2
Cholera—Insular.			
Philippine Islands—Manila	June 20-27	5	4
	June 27-July 4	8	7
Philippine Islands—Provinces	June 20-27	620	359
Cholera—Foreign.			
India—Bombay	July 14-21	1	
India—Calcutta	July 11-18	24	
Strait Settlements—Singapore	June 20-27	1	

WOOD.—In Richmond, Virginia, on Sunday, August 23d, Dr. Jackson B. Wood, in the eighty-seventh year of his age.

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Original Communications.

THE VALUE OF CONFIRMATORY CULTURES IN DIPHTHERIA.

BASED ON THE WORK OF THE DIAGNOSIS LABORATORY
OF THE DEPARTMENT OF HEALTH OF THE
CITY OF NEW YORK.

By JOHN S. BILLINGS, JR., M. D.,

NEW YORK.

The observations in the following article are based on an experience of eight years' service in the Diagnosis Laboratory of the Department of Health. During the first five years of this time the writer made the routine examinations for diphtheria; since then, the work has been under his immediate supervision.

The department of health began the routine examination of cultures from suspected cases of diphtheria on May 4, 1893. It was at once found that while a positive statement as to the presence or absence of diphtheria bacilli could be made in a majority of instances from examination of the primary culture, in others certain conditions made an exact diagnosis impossible, and rendered a second (confirmatory) culture necessary. These conditions were:

A. Late Cultures. It was found that in a few cases of clinically true diphtheria, where cultures were not taken until after the fifth day, diphtheria bacilli could not be found in the first culture, but were present in the confirmatory culture. It was, therefore, made a rule to request a second culture in all cases over four days old. The report of examination read: "While no diphtheria bacilli are present, yet an exact diagnosis is impossible (possibly) (probably) for the reason that the culture was made too late in the disease; a confirmatory culture is therefore requested." Where the clinical diagnosis was diphtheria "(probably)" was used; where it was doubtful, "(possibly)."

B. Poor growth on the culture medium, due to (1) severity of illness of patient, and consequent inability of the person making the culture to obtain access to the throat; (2) ignorance of the proper method of making a culture. Often no at-

tempt would be made to rub the swab over the culture medium, or it would be jammed forcibly into the medium. Occasionally the energetic physician would systematically reduce the semisolid medium to a pulp. Whenever only a slight growth was present, the tube was incubated twenty-four hours longer. Unfortunately, such reincubated cultures were often found on reexamination to have become contaminated.

C. Overgrowth of certain "contaminating" organisms, the development of which was found to be favored by Loeffler's serumagar even more than that of the diphtheria bacilli, cocci, and non-diphtheritic bacilli. These contaminating organisms were usually very large, spore-forming bacteria or moulds. As a rule, they liquefied the medium, and microscopical preparations showed a dense mass of organisms, zooglæa, or hyphæ.

D. Dryness of culture medium. Tubes were submitted which contained only the hard, dried-up, "dead worm" remnant of the medium, or a brown stain on the glass.

E. The presence of bacilli which, though strongly resembling diphtheria bacilli, were yet not sufficiently typical to render possible an exact diagnosis.

F. In early laryngeal cases where the disease began in the larynx the bacilli sometimes did not appear in the pharynx until the fifth day, or later, earlier cultures being negative. So that in all negative cases in which no membrane was visible, and where the larynx was involved, a confirmatory culture was asked for.

G. Where antiseptic washes or sprays (especially mercurials) were applied to the throat just prior to taking the culture, it was found that they sometimes prevented any growth from taking place on the culture medium. The application of this fact was extended to include all cases where an antiseptic had been used within two hours of making the culture.

Where the diphtheria process was elsewhere than in the throat or nose—e. g., the eye, ear, vagina, etc.—a positive diagnosis of diphtheria was not made. If bacilli corresponding in morphology to the diphtheria bacillus were found,

the report to the physician read: "Although the bacilli present are apparently morphologically identical with diphtheria bacilli, yet, owing to the location of the lesion, an exact diagnosis cannot be made."

A special report blank was devised for reporting cases coming under the above-mentioned classes, which report stated that while no diphtheria bacilli were found, another culture was requested, for one of the above mentioned reasons, and such cultures and blanks were soon familiarly spoken of as "A, B, C, D, E, F, and G," cultures and blanks, respectively. These abbreviations are used in this report. At first, all cases which showed diphtheria bacilli, and in which exudate was present in the throat, were reported as "true diphtheria." About January 1, 1900, this was discontinued, for reasons not pertinent to the subject of this report; since then, all positive cases have been reported simply as showing the presence of diphtheria bacilli.

All negative cases, the duration of which is less than five days, and to which the above-mentioned seven "doubtful" conditions do not apply, are reported as being "false," i. e., probably not diphtheria.

As far as making a request for a confirmatory culture goes, every negative report blank may be said to do so, as it contains this statement: "This conclusion (*that the case is not one of diphtheria*) is based on the supposition that the directions on the slip accompanying the culture tube have been properly carried out, and that the inoculation was made before the commencement of convalescence. *The important fact has been demonstrated that in an extremely small number of cases the first culture will not contain the diphtheria bacilli, while they are found in a later culture.* Whenever, therefore, the attending physician desires it, a confirmatory culture will be gladly examined."

On January 1, 1903, the above-described system had been in use for almost ten years. The bacteriologists making the examinations had been doing this work for a number of years and were thoroughly familiar with its intricacies. Yet the system through growth and extension had gradually become unwieldy, and mistakes and faulty applications occurred. A bacteriologist might be thoroughly familiar with the diphtheria bacillus and its various forms and modifications, yet six months' training was found to be necessary in every instance before he could be trusted to do the work alone; and many men who were good bacteriologists could never learn the system of reporting. The requirements for satisfactory work are (1) The power of sure, *quick* decision. From two to three hundred cultures must be ex-

amined each morning, and the examinations must be finished by 11 a. m., in order that the report can be mailed by noon and delivered the same day. And (2) The ability to classify methodically each case in its appropriate place in the foregoing system. It was therefore determined to investigate the whole question of confirmatory cultures in diphtheria, the end in view being, if possible, to increase the number of cases in which a positive diagnosis can be given on one culture, and further, to simplify as far as possible the present complicated system of reporting doubtful cases. This can best be done by considering for a given period of time all the cases in which the bacteriological diagnosis was influenced by the before-mentioned seven classes of conditions (A to G).

The period chosen for investigation was from January 1, 1901, to January 1, 1903. The desired facts were obtained as follows: Besides being filed in a card index, the result of every culture is recorded in a daily journal, the record number of the case, address of the patient, and the microscopical diagnosis being noted. Wherever a confirmatory culture is recorded, it is given the same record number as the original culture. So that it was a simple matter to ascertain the desired facts, viz.: the number of cases in which a confirmatory culture was requested, the number of such confirmatory cultures submitted for examination, and finally, the addresses of the patients the confirmatory cultures from whose throats showed diphtheria bacilli. By means of the address the original history slip was easily found in the card index, and the clinical history, duration of the disease, and other information obtained in each case.

From May 4, 1893, to January 1, 1894, 2,623 cultures from cases of suspected diphtheria were examined. Of these 1,801 (68.7 per cent.) showed diphtheria bacilli, 613 (23 per cent.) were "false," and 209 (9 per cent.) were doubtful. The percentage of doubtful cultures rose steadily each year until 1898, when of 11,468 cultures, 2,460 (22 per cent.) were doubtful. Since then the percentage of doubtful cases has fallen.

From January 1, 1901, to January 1, 1903, 29,983 primary cultures were examined. A positive diagnosis on the first culture was made in 25,608 instances, 13,531 showing diphtheria bacilli, and 12,184 being "false" (107 of these "false" cases showed diphtheria bacilli on second examination). In 4,268 cases (14 per cent.) a positive diagnosis could not be made on the first culture. Table I shows the above-mentioned facts, and also a classification of the doubtful cases as to the reason why a confirmatory culture was asked for, the number of such confirmatory cultures received

and the number of confirmatory cultures showing diphtheria bacilli. Three sets of percentages of the cases proving true are given: (a) Grand total per cent., i. e., proportion to total number of all

TABLE I.

Class.	Confirmatory culture requested.	Confirmatory culture received.	Confirmatory culture showing diph. bacilli.	Grand total. Per cent.	Total. Per cent.	Confirmatory Per cent.
A....	937	456	59	0.2	6.2	12.9
B....	427	192	42	0.1	9.8	21.8
C....	617	319	82	0.3	13.2	25.7
D....	21	3	1	0.003	4.7	33.3
E....	2027	1063	239	0.8	11.7	22.4
F....	574	243	40	0.1	6.9	16.4
G....	183	95	16	0.05	8.7	16.8
Total. (4786)	(2371)	(479)	(1.6)	(10)	(20.2)	
False. (12184)	685	107	0.03	0.8	15.6	

cultures; (b) total per cent., i. e., proportion to total number of cultures of same class; and (c) confirmatory per cent., i. e., proportion to confirmatory cultures received. The last set of percentages is the most valuable for purposes of comparison and for estimating the relative importance of the various classes of "doubtful" conditions (A to G). Table II is a tabulation of the 313 positive confirmatory cultures received during 1902, classified according to day of disease on which cultures were taken, age of patient, presence or absence of membrane, etc. Both these tables will be frequently referred to in the separate, detailed consideration of the various classes of confirmatory cultures.

In order to come to any conclusion as to whether the various "doubtful" conditions (A to G) furnish valid reasons for declining to give a definite negative diagnosis on one culture, the results of the confirmatory cultures under each head must be compared with those cases in which a negative diagnosis was given on a single culture, i. e., the "false" cases. So that these latter cases will be considered first for purposes of convenience.

"FALSE CASES."

It has long been recognized by the medical inspectors of the department of health, that, in the cases of clinically true diphtheria which fail to show diphtheria bacilli during the first few days of the disease, the infection is very often excessively severe. The patients are usually septic, the pus cocci playing the leading part, to the exclusion of other organisms. The mortality of these cases is relatively very high. Of 45 such cases, in which diphtheria bacilli were first found in the confirmatory culture after the fifth day of the disease, 8 died

TABLE II.
CONFIRMATORY CULTURES SHOWING DIPHTHERIA BACILLI—1902.

	Day of Disease on which First Culture was taken.						Day of Disease on which Confirmatory Culture was taken.						Death.	Age.		Exudate.		Clinical Diagnosis.				Culture taken by		
	1	2	3	4	5-10	Over 10	1	2	3	4	5-10	Over 10		Adult.	Child.	Pres-ent.	Lar-ynx Alone.	None.	Not stated.	Diph-theria.	Doubt-ful.		Not Diph-theria.	Not stated.	In-spec-tors.	Physi-cians.
A—(Too late)...					38	1					15	24	1	3	36	22	0	8	0	18	8	8	18	24
B—(Scanty).....	5	4	5	3	2	6	1		4	2	8	10	0	1	24	19	0	2	1	14	0	8	1	24
C—(Contaminated)	7	16	8	4	6	0	1		7	1	25	7	0	2	42	30	0	5	0	28	8	7	23	24
E—(Suspicious)	35	45	39	11	12	0	10		23	23	80	6	1	17	125	100	0	24	18	1	24	22	53	80
F—(Laryngeal)...	6	8	3	1	0	0	0		0	0	15	3	4	0	18	0	15	1	2	10	1	0	8	10
False	11	15	12	7	0	0	3		5	6	22	9	8	4	41	32	0	0	1	34	7	1	22	23

—a mortality of 17 per cent. Just why it is that diphtheria bacilli are often absent in cultures from the throats of such septic cases is not known. It may be due to (a) the extreme virulence and vital activity of the cocci and their consequent rapid and overwhelming growth on the culture medium; (b) similar overwhelming of the diphtheria bacilli in the throat itself, the diphtheria bacilli being present only in the deepest layers of the exudate; or (c) actual inhibition of the growth of the diphtheria bacilli by toxins or other products of the pyogenic cocci. But ordinary streptococci and staphylococci possess none of these properties, and it would be very difficult to prove that those present in these septic cases possess them. The condition of affairs is somewhat analogous to that seen in the blood in intense pneumococcus infection; instead of the usual great increase in the multinuclear leucocytes, there is no leucocytosis at all, but often a distinct leucopenia. Such a state of affairs is of distinctly bad omen; and so, likewise, is the apparent absence of diphtheria bacilli from the throat, in an early septic case of clinically true diphtheria. In a great majority of the 45 "false" confirmatory cases given in Table II, membrane was present, and the clinical diagnosis was diphtheria.

A. Comparison of the results of examination of the confirmatory "too late" and confirmatory "false" cultures shows that no hard-and-fast line can be drawn between cultures taken before the fifth day of the disease and those taken between the fifth and tenth day, as is done at present. Indeed, the balance in favor of a definite negative diagnosis would seem to be with the culture taken at the later period. Of the confirmatory "false" cultures, 16 per cent. showed diphtheria bacilli, of the confirmatory "too late" cultures only 12 per cent. Further, of the 45 false cases which showed diphtheria bacilli on second examination, in 31, or 70 per cent., the second, positive culture, was made on or after the fifth day of the disease. It is seen that cases over ten days' old in which primary cultures are negative very rarely show diphtheria bacilli on confirmatory culture (1 out of 39 cases). But after ten days the well-known fact must be taken into consideration that in true cases of diphtheria the bacilli quite often disappear from the throat by the tenth day; so that it would be unjustifiable to state that any case over ten days old not showing diphtheria bacilli, had never been diphtheria. The conditions leading to absence of bacilli in cultures from undoubted cases of diphtheria (sepsis, etc.) seem to act most strongly early in the disease. Such septic cases usually either prove fatal by the fifth day, or the diph-

theria bacilli by that time assert their original prior tenancy, and are to be found in the cultures. This is shown in the following table, based on the records for 1902:

	Confirmatory culture, Positive.	Deaths.	Mortality, Per cent.
First culture negative, "False"	45	8	17
First culture negative, "Too late"	39	1	2.5

(The one "too late" case in which death occurred, was of only five days' duration). The majority of the "too late" cases in which the confirmatory cultures were positive showed the presence of membrane in the throat. The clinical diagnosis in these cases was usually uncertain; in less than half the cases there was a diagnosis of diphtheria.

It therefore seems unnecessary to ask for confirmatory cultures on the ground of the first culture having been taken too late in the disease.

B. In those cases where a confirmatory culture is asked for on account of the absence of growth on the culture medium, the fault almost always lies with the maker of the culture. When some growth is present, no matter how little, reincubation for twenty-four hours will enable a definite diagnosis to be made. But where no growth at all is present, with certain rare exceptions, it means carelessness or ignorance on the part of the culture maker. In a very few cases it is impossible to gain access to the throat, owing to the inability of the patient to open his mouth. But where the wire swab can be inserted at all, it can almost always be passed straight back, and thus sufficient material for inoculation of the tube can be brought away. Again, cultures made shortly after the use of local antiseptics in the throat may fail to show any growth whatsoever. It is, indeed, conceivable that a case of diphtheria may be so mild, and the bacilli so localized (tonsillar crypts), that the culture may fail to show them; but, if the culture is well made, the growth will not be poor, for the reason that the normal bacterial denizens of the throat are always present, and with reasonable care a satisfactory culture can be obtained from ninety-nine out of a hundred throats, whether healthy or diseased. Of 25 cases in which the first culture showed insufficient growth, and the second showed diphtheria bacilli, in 24 the first culture was taken by the attending physician, in 1 by a medical inspector of the department. Of the 25 confirmatory cultures, 19 were taken by inspectors. In most of the confirmatory

true cases membrane was present, and the clinical diagnosis was diphtheria. The day of the disease on which the culture was taken naturally seemed to have no influence on the result. During the last eight years not a single instance has been observed in which a poor growth was due to any fault of the medium—i. e., faulty preparation, abnormal constituents, etc.—excluding its drying up when too old. So that absence of growth on satisfactory culture media should usually be taken as evidence of ignorance of the proper methods of making cultures, and is a valid reason for requesting a confirmatory culture.

C. Judging by the figures given in the table, contamination of a primary culture in a case of diphtheria furnishes the best reason for asking for a confirmatory culture. Eighty per cent. of the primary contaminated cultures which afterwards proved true were taken before the fifth day of the disease, and 80 per cent. of the confirmatory true cultures were taken before the tenth day of the disease. In only 11 per cent. was membrane stated to be absent, and in only 2 per cent. was the diagnosis not diphtheria. Contamination is not due to any fault in the making of the culture; over half the cultures were taken by department inspectors. None of these cases proved fatal. A special investigation of 200 contaminated cultures has been made, with a view to the determination of the following points: (1) The nature of the contaminating organisms; and (2) whether they have any specific inhibitory influence on the growth of the diphtheria bacillus. A detailed account of the investigations cannot be given here on account of lack of space, but the conclusions reached were as follows: None of the contaminating organisms possesses any specific inhibitory effect on the growth of the diphtheria bacillus, but they all liquefy Loeffler's culture medium, in some instances in a remarkably short space of time. They grow luxuriantly, and often with the formation of intracellular mucoid substances, so as to render the morphological identification of the diphtheria bacilli more difficult, if these latter are also present, than is the case with mixed diphtheria and staphylococcus or streptococcus cultures. If diphtheria bacilli are present in these contaminated cultures, careful examination will reveal their presence in all but about 5 per cent. of the cases (instead of 13 per cent., as given in Table I). In this 5 per cent. the culture medium is completely liquefied, and while diphtheria bacilli may be present, they are not to be demonstrated by the microscope alone. In every case where the confirmatory culture showed diphtheria bacilli, there was membrane in the throat and the clinical diagnosis was diphtheria.

The conclusions to be drawn from the above facts are that contaminated cultures call for most careful examination, but should diphtheria bacilli be absent and the culture medium not liquefied, a negative diagnosis can be made with practically as much confidence and security as in those cases where only cocci and other non-contaminating organisms are present—i. e., "false" cases. If the medium is liquefied, if the clinical diagnosis is diphtheria, and if the duration of disease is less than ten days a confirmatory culture should be asked for.

D. Those cases where a confirmatory culture is asked for on account of dryness of the culture medium can be dismissed with the statement that Loeffler's culture medium can dry up and shrink to less than one-half its original bulk, yet cultures on it will almost always show diphtheria bacilli if present in the throat. Culture tubes, dried in the incubator, and then inoculated either from the throats of diphtheria patients, or from cultures of diphtheria bacilli, showed satisfactory growth even where the drying reduced the medium to one-third its original bulk. In the cases where a second culture was asked for because of dryness of the culture medium, which showed diphtheria bacilli on confirmatory culture, there was practically no culture medium present in the first tube used, only a dried up, worm-like, dark brown mass remaining in the tube. Such tubes are only rarely submitted; they show gross ignorance on the part of the maker of the culture, and their number grows gratifyingly less each year. So that dryness of culture medium may be eliminated as a reason for asking for a second culture, such cases being included under "B" (no growth).

E. The question of the value of "suspicious" or diphtheria-like bacilli as a ground for requesting confirmatory cultures is too large a one to be discussed here. The morphology of the diphtheria bacillus varies widely between long, slender rods, barred, or polar stained, and short, solid-staining, lanceolate forms, according to the nature of the other organisms which are present and certain other conditions; so that the presence of diphtheria-like organisms in a culture is the most valid of all reasons for asking for a confirmatory culture. The duration of the disease at the time when the first culture is taken appears to play no part. Most of the cases proving to be true diphtheria on confirmatory culture show membrane, and are clinically diagnosed as diphtheria. These suspicious organisms are often found in the throats of adults. Where they prove to be true diphtheria bacilli, their virulence is often as great as that of bacilli from severe cases of diphtheria. Differences in the liability to

transmission of the disease are probably due to differences in the number of organisms present in the throat.

The personal equation of the examiner plays a large part. It often occurs that one examiner will find suspicious organisms in a much larger percentage of cases than another. Further, an organism may seem to one examiner to be most suggestive of diphtheria, while another may classify it as only slightly suspicious. So far, attempts at classifying organisms according to the grade of their resemblance to typical diphtheria bacilli have been most unsatisfactory, as is shown by the following table:

TABLE III.

Character of suspicious organisms in first culture of 142 cases, which showed diphtheria bacilli in confirmatory culture.

Slightly suspicious.....	13
Somewhat suspicious.....	41
Quite suspicious.....	32
Very suspicious.....	56

If the contention of Dr. Williams, that the morphological characteristics of suspicious or diphtheria-like bacilli and true typical diphtheria bacilli are not interchangeable in pure culture, is correct, the question will be greatly simplified. It is proposed to make in the near future a systematic attempt to classify these suspicious and diphtheria-like organisms, and by animal tests for virulence to determine whether some of the non-virulent forms cannot be recognized and excluded by microscopical examination alone, thus doing away with the necessity for a confirmatory culture. At present, however, we are forced to continue to request confirmatory cultures where suspicious organisms are present.

F. Consideration of the cases in which a confirmatory culture was asked for on account of the lesion being limited to the larynx, offers several points worthy of note: (1) In almost every case the culture was made very early in the disease—in 14 out of 18 cases on the first or second day.

(2) All the cases occurred in children.

(3) In 16 cases the diagnosis was diphtheria, and in the remaining cases it was either doubtful or not stated.

(4) There was no membrane in the pharynx when the first culture was taken in any of the cases. But in 15 out of 18 cases there was evidence of laryngeal exudation; in only one case was there declared to be no membrane at all.

(5) These cases exhibited the usual severity of croup cases. The case mortality was 22 per cent., and the fatal croup cases formed 60 per cent. of all fatal "confirmatory true" cases.

We may therefore conclude that in all cases in children failing to show diphtheria bacilli, where

the membrane is stated to be limited to the larynx, and where the duration of the disease is under five days, a confirmatory culture should be asked for.

G. While it is true that the recent use of antiseptics in the throat (especially nitrate of silver and mercurials) tends to diminish the number of organisms present, and hence leads to a poor growth on the culture medium, yet such inhibition is a general one and is not limited to the diphtheria bacillus. If the growth is plentiful and no diphtheria bacilli are present, then a definite negative diagnosis can be given, even though a local antiseptic has been used within an hour. On the other hand, if the growth is scanty and unsatisfactory, then the question of asking for a confirmatory culture comes under the head of "B," regardless of whether an antiseptic has been used or not.

CONCLUSIONS.

I. A certain small percentage of cases of true diphtheria fail to show diphtheria bacilli on first culture, this failure being due in many instances to a conjoined infection with the septic micrococci. With the exception of these cases, the statement that a case is probably not diphtheria can be made on one negative culture up to the tenth day of the disease.

II. Valid reasons for requesting a confirmatory culture in negative cases are: (a) Cases showing no growth whatever on the culture medium; (b) complete contamination and liquefaction of the culture medium, in cases which are clinically diphtheria; (c) cases showing the presence of suspicious or diphtheria-like bacilli; and (d) croup cases in infants or children, where the membrane is limited to the larynx, and the duration of the disease is less than five days.

III. Dryness of culture medium, scanty growth on culture medium, and recent use of antiseptics with satisfactory growth of other organisms than diphtheria bacilli, do not alone furnish sufficient grounds on which to request a confirmatory culture.

In accordance with these conclusions, the system of reporting the results of primary diphtheria cultures at the Diagnosis Laboratory of the Department of Health has been modified. A brief statement of the system is given for the benefit of physicians who utilize the laboratory service, but are sometimes confused by its reports.

Every positive culture, whether from a person suspected of having diphtheria or from one who has only been exposed to the disease, will be reported as showing diphtheria bacilli.

Every negative culture from persons suspected of having diphtheria, where the duration of the

disease is ten days or less, will be reported as probably being not diphtheria, excepting under the following conditions—when a confirmatory culture will be asked for:

(a) When there is no growth on the culture medium.

(b) When the culture medium is completely contaminated and liquefied, and when the clinical diagnosis is diphtheria.

(c) When suspicious or diphtheria like bacilli are present.

(d) When the membrane is limited to the larynx, the duration of the disease is five days or less, and the clinical diagnosis is croup or laryngeal diphtheria.

(NOTE.)—This modified system was put into effect April 1, 1903. So far its working has been satisfactory. The number of indecisive cases has been reduced fully 50 per cent. After a suitable length of time the results will be compared to those obtained under the old system. It is confidently hoped that much greater satisfaction will be given to physicians, without in any way impairing the efficiency of the service. Clerical mistakes will be fewer, and dissonant results, due to the varying personality of the examiners, should be reduced to a minimum.

THE ROENTGEN RAY AS A THERAPEUTIC AGENT.*

By CYRIL FULTON, C. M., M. D.,

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I wish to remark in opening this very short paper that I have not prepared an elaborate or exhaustive analysis of the literature pertaining to the Röntgen ray as a therapeutic agent. I simply give a little of my own experience. The amount of suitable clinical material that has drifted my way has been somewhat limited, but the results have been both to myself and my patients extremely gratifying.

The results obtained by other observers have stimulated me to work patiently with the x ray, and I feel it my duty to report these results in order to encourage, if possible, the further use of this therapeutic agent. It is with a great amount of pleasure that I am able to-day to present to you the case report of a patient who has been cured apparently of that dread disease, carcinoma, that cure having been accomplished without the use of caustics or the knife, which so often are unsatisfactory.

We might very fittingly pause here and express our deepest gratitude to Professor Röntgen

for his marvelous discovery. This curative influence is not confined to carcinoma alone, but embraces a number of diseases, and these, by the way, are those in which heretofore we often so signally failed to conquer the pathological processes.

Lupus in all forms is the favorite field for the x ray, as here the results so far are the most brilliant. All varieties of malignant growth have been cured in certain instances; also prurigo, eczema, psoriasis, acne vulgaris, sycosis, favus, acne rosacea, and tuberculous foci. It assists also in healing burns, wounds, and ulcers, and has been used to remove superfluous hair. It seems reasonable to suppose, if lupus can be cured, that when we know more of the technique, learn a definite measure of dosage, and can more effectually guard against the uncertainties and dangers of the ray, we can utilize this marvelous light and cure tuberculosis in any part of the human body. Next to the curing of lupus, probably the most striking therapeutic action of the Röntgen ray is the absolute and complete cessation of pain in all cases of malignant disease exposed to its influence. Did the ray do no more than this, it would be worth further investigation, as its analgetic powers put morphine to the blush. This I have demonstrated to my utmost satisfaction in every case.

As it is at present the x ray should be used only by those who have had considerable experimental study. Unfortunately the discovery has been of so recent a date that no amount of valuable material has been compiled, but each day adds to the already invaluable store.

My experience has led me to believe that the best results are procured when irradiation is carried to the limit of toleration short of burning the tissues, and apparently the only way of estimating the amount any patient will tolerate is gradually to increase the length of the exposure until slight inflammatory symptoms are observed, when the exposure should be shortened or discontinued. We must be very careful not to burn the tissues too much, or we shall produce gangrene, still we must apply enough to cause a retrogressive change in the new growth.

As Dr. Morton aptly says, the treatment is a hazardous journey between Scylla and Charybdis.

Experience alone will enable one to keep the tube in proper condition for the best work. Tubes are an unknown quantity. Often, tubes identically the same in appearance and from the same maker will behave entirely differently, and the same tube will vary on different days and even the same day.

* Read before the Wayne County Medical Society semi-annual meeting, at Newark, N. Y., January 20, 1903.

How this mysterious radiation, if radiation it is (at any rate it is an electrical phenomenon), affects the tissues of the body is a matter of speculation at present. It is by some attributed to projection of electrical energy; some that the x ray gives rise to the ultraviolet rays within the tissues by interference; by some that ozone is set free in the tissues by the radiation; others assert that the electric waves cause the tissues to oscillate changing their regular molecular motion, thus causing a disintegration of their structure. Some again consider the effect is caused by a projection of molecules into the tissues. The theory entertained most at present is that the rays are composed of corpuscles or electrons, which are charged negatively.

It is not my purpose to enter into a review of the history of the x ray, how it was discovered, what it is, what it does, or in what manner it cures, or at any rate causes certain diseases to disappear.

As a practising physician and surgeon I am interested most, not in theories, but in the clinical results of these cases, and speak from my own positive results, and my experience has convinced me that we have in the x ray under careful supervision one of the greatest, if not the greatest, addition to the therapeutic armament of the modern physician and surgeon, to say nothing of its inestimable value in fractures, dislocations, locating of foreign bodies in any part of the system and its use in clinical diagnosis.

Illustrative of my mode of procedure I will cite the following case in detail. I have used a medium soft tube (Swett & Lewis) actuated by an 8 plate 30 inch Wait & Bartlet Static Machine, run at 400 revolutions per minute.

I may say right here that this machine gives me as penetrative a ray as plenty of 12 plate machines. Distance of tube from part one inch, the parts surrounding the growth covered by a lead mask.

CASE.—September 8, 1902. A. P., aged fifty-one years. Horseman. Referred to me by Dr. Edward Brown, of Alloway, N. Y. Eight months ago noticed a small nodule on lower lip midway between angle of mouth and median line of lip. This has gradually increased in size until now it is as large as a very large filbert nut, being well elevated above the surface of the lip; base greatly indurated, which induration extends about half way to point to chin. He says growth is at present enlarging very rapidly. Some layman advised a poultice which he found increased the growth very greatly. Dr. Towlerton, of Lyons, wished to excise the growth, pronouncing it an epithelioma. Dr. Brown also concurred in the diagnosis.

I have advised removal with the knife, using

the x ray afterwards to prevent recurrence of the disease, but the patient objects to the use of the knife, so I cannot procure a section even of the growth. The cervical glands are quite markedly enlarged, which enlargement is general. Patient looks cachectic, and says he has lost thirty pounds in weight. For a few weeks he has had considerable stinging pain in and about the growth. Dr. Brown cauterized the growth, but it immediately recurred and seemed to grow faster. Family history negative. No specific history.

September 8th.—Irradiated growth ten minutes. Patient remarking, "That makes the growth feel numb."

September 9th.—Patient says he has been without pain since yesterday. Exposed fifteen minutes.

September 10th.—Mucous membrane about growth looks puckery. Gave fifteen minutes.

September 11th.—Exposed fifteen minutes.

September 12th.—All tenderness gone in growth, shriveling very marked. Warty growth smaller in size and darker in color. Gave twenty minutes.

September 13th.—Patient had a little pain during the night, but I still gave him twenty minutes.

September 14th.—Patient had pain again last night. Growth more shriveled and darker yet in color. Exposed twenty minutes.

September 15th.—Slight irritation about epithelioma. In one spot, edges of growth are undermined as if tissues are healing and shoving off the warty growth. Irradiated ten minutes.

September 16th.—Growth dwindling in size. Mucous membrane looks as if a ligature has been thrown about the base of the growth and healing taking place. Gave ten minutes.

September 17th.—Growth almost detached. Induration at base entirely removed. Lip is quite sore, due to burning of x ray. Gave no treatment to-day.

September 18th.—No treatment, as parts are irritated.

September 19th.—Growth more shriveled and more raw surface exposed. Inflammation not so marked. Irradiated five minutes.

September 20th.—Growth detached yesterday, and now is about the size of a dime. And one quarter inch in thickness, surface of lip is raw but not bleeding.

September 21st.—Raw surface exudes a sticky, watery substance, but is not tender. Exposed ten minutes.

September 22nd.—Lip sore. No treatment.

September 24th.—No soreness. Gave ten minutes, and applied xeroform in lanoline one to ten. Also ten minutes on September 25th and 26th.

September 27th.—Sore unchanged. Small whitish spot has developed on mucous membrane of upper lip where x ray has been playing on same.

September 28th.—Raw surface has closed in at least one quarter inch in all directions. New mucous membrane which is very blue in color having formed since yesterday. Gave fifteen minutes.

On September 29th, 30th, and October 1st, 2nd, 3rd, 5th, 6th, and 7th, twenty-five minutes.

October 9th.—No treatment. Sore very angry looking.

October 11th.—No treatment, still angry.

October 16th.—Looks well. Healing fast. Spot on upper lip also healing nicely.

October 20th.—Upper lip entirely healed and spot on lower lip much smaller.

October 29th.—Lip very nearly healed. Spot size of a pea remaining, which has a very thin scab over it.

November 3rd.—Small vesicle size of pin head in site of cancer.

November 7th.—Lip entirely healed. Patient has gained fifteen pounds in weight.

This is at least a clinical cure. Whatever the real action of radiotherapy may be, the results are perfectly astonishing. In view of our limited knowledge of the subject it would be premature to say that all malignant disease, in no matter what part of the body, can be cured by this agent, still let us hope that when we have caused superficial carcinomatous growth to disappear, and no one can doubt this, then when we have perfected the technique, established a more definite dosage, and learned to know the tolerance of our patients that our fondest expectations may be realized, and we can then positively cure carcinoma; for cancer tissue is the same in no matter what part of the body it is situated, and the x ray can penetrate the body as easily as it can reach the surface growths.

SURGICAL SHOCK, WITH SPECIAL REFERENCE TO THE SOLAR PLEXUS AS A FACTOR.*

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It is not the intention of this paper to enter into an elaborate description of the subject of shock, or even attempt to review the great volume of excellent literature which already exists upon this subject. However, before entering upon the main feature of the paper, I wish to call attention to some of the more important symptoms and phenomena observed in this condition, which I have gathered from some of the best treatises upon this subject, for the purpose of refreshing our minds, and for a comparative study of the two conditions.

Shock is a general, and more or less profound depression of the vital functions, and is characterized by extreme prostration, quick, irregular or absent pulse, pale, pinched features, clammy skin,

and cold extremities, faint and sighing respiration, and in severe cases these symptoms may be accompanied by loss of consciousness. The latter symptom is especially found in cases where the shock is the result of injury to the head. Muscular weakness, due to inhibition of the motor centres, is a prominent symptom, and there may be involuntary evacuations, due to failure of sphincters to functionate from this cause.

The condition is produced by a lowered blood pressure, induced by a vasomotor paresis, and may be the result of hæmorrhage, accumulation of blood in large abdominal veins, or severe injury of the peripheral ends of the sensory or sympathetic nerves.

There may be great variation in the degree of shock, depending on the extent of injury or irritation, varying from slight faintness lasting only a short time, to a profound and finally fatal collapse. The circulatory balance is embarrassed on account of the paralysis of the vascular tone, and the weakened heart action, these conditions resulting in an unequal distribution of the blood. The veins become distended, especially those of the abdomen, which become overfilled from gravitation. The right side of the heart becomes gradually distended, the sounds are indistinct and may be entirely inaudible. The temperature falls in proportion to the degree of shocks, sometimes exceeding two degrees.

Symptoms of shock may come on immediately after an injury or during an operation; in the latter case they usually appear after a severe hæmorrhage, or else they may come on very gradually producing the condition known as delayed shock. The vital powers are profoundly prostrated, the patient lying upon his back, too weak to move and almost too weak to breathe.

However, in some cases the picture is quite a different one. The patient is extremely restless, shifts himself about, first in one position then in another, cries out at the top of his voice, throws his arms about in every direction, and gasps for breath. The mind in these cases is usually clear, the voice is strong, yet there is great fear of impending death; finally the patient lapses into a condition of extreme exhaustion, and death follows in a short time. This type I have noticed especially following operations for hernia which had been strangulated for some hours.

Reaction from a state of shock is announced by returning consciousness, pulse becomes stronger and more regular, color and expression more natural, and returning muscular power enables the patient to move about in the bed.

Unfavorable symptoms are deepening stupor, diminished force of pulse, insensibility of pupils, profuse perspiration, and persistent vomiting. If

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the temperature decline is three or more degrees, a fatal termination may be looked for.

What I have read so far are the characteristic symptoms of a typical case of shock, as we find them related in the classical descriptions of our textbooks. What I will now attempt to describe is a condition upon which I have been unable to find any literature whatever, and which I have called, in order to announce my suspicions, "solar plexus shock." This condition is characterized by a lack of symptoms, rather than by any group, with the exception of one symptom, but that one seems to be constant and pathognomonic, viz., a rapid, wild, and erratic heart action with the consequent like pulse action. The clinical picture of a patient suffering from this form of shock is most deceiving to the surgeon and friends; as the general condition of patient seems so excellent that even the surgeon himself is buoyed up and lulled into a feeling of security in spite of the rapid pulse, which he feels will soon subside to normal or assures himself that it cannot mean much as long as the patient's general condition is so good. However, in from forty-eight to sixty hours, may be a little longer, we have all the symptoms of a worn-out exhausted heart supervening, fatal collapse, and death. In order to consider the condition from an intelligent standpoint it will be necessary for us to review the anatomy and physiology of the parts involved.

Anatomy and Physiology.—The epigastric or solar plexus supplies all viscera in the abdominal cavity. It is situated behind the stomach and in front of aorta and crura of the diaphragm. It surrounds the celiac axis and the root of the superior mesenteric artery; extends downward as low as the pancreas, and outward to the suprarenal capsules. This plexus and the ganglia connected with it receive the great splanchnic nerve of both sides and some filaments from the right pneumogastric. It distributes filaments which accompany, under the name of plexuses, all the branches from the front of the abdominal aorta.

The semilunar ganglia of the solar plexus, two in number, one on each side, are the largest ganglia in the body. They are large irregular gangliform masses, formed by the aggregation of smaller ganglia and having interspaces between them. They are situated in front of the crura of the diaphragm, close to the suprarenal capsules. The one on the right side lies below the inferior vena cava; the upper part of each is joined by the greater splanchnic nerve, and to the inner side are joined the branches of the solar plexus. Through this source there is also communication with the pneumogastric nerve.

From the solar plexus are derived the following: Phrenic or diaphragmatic plexus; suprarenal

plexus; renal plexus; spermatic plexus; celiac plexus; superior mesenteric plexus; and aortic plexus.

Description of the Condition.—Now let us consider the condition which presents itself. First, that due to direct violence, as gunshot or wound through the stomach or in the neighborhood of the solar plexus. It is not necessary that it be direct contact; as we now know that there is a violent lateral force exerted, known as the explosive force of the bullet. This produces a paralyzing effect on the plexus, which is communicated to the auxiliary plexuses, with the result which characterizes the ordinary form of shock, viz., vasomotor paralysis of all, or a greater part of, the vessels of the abdomen; and as this plexus distributes filaments to the front and sides of the abdominal aorta, the effect is enormous, as we know that the elastic properties of the arteries make their auxiliary action to the heart in the onward flow of the blood current considerable. We can imagine what an embarrassment the loss of this function in a vessel so large as the aorta would mean. In order to compensate for this loss of function, the heart must increase its labors to a very great extent. Its action becomes rapid and irregular in its effort to force the blood through the paralyzed portion of the vessel. The increased demand on the heart is so sudden that there is no time for compensatory hypertrophy, and our patient succumbs with a dilated heart.

There is another cause which is perhaps more directly responsible for the condition than the one just mentioned. The character of the heart beat is governed and regulated by two sets of nerves. The first set comes from the cerebrospinal centre, and is supplied by the pneumogastric nerves, which it will be remembered enter the solar plexus. They are the inhibitory nerves, i. e., they slow, and with strong stimulation will stop, the action of the heart for a short time. They weaken the systole and prolong the diastole. In great shock to the solar plexus, we have paralysis of these nerves, due to their relations; and the disastrous results which would follow such a condition are apparent, a heart running at random, wild, and erratic, without any control whatever, until it finally succumbs to exhaustion, or dilatation.

What I have said in regard to direct violence I believe to be true, though in a much slower and less violent reaction, of shock caused by injury and manipulation of organs remote from the plexus itself. Also absorption of septic material in the abdominal cavity, especially when absorption takes place in close proximity to the solar plexus, causing a soporific condition of the organ due to absorbed toxins. "Goltz's experiments, which have been re-

cently repeated by Parascandola, proved that shock could be induced by mechanical injury to abdominal organs. The experiment consisted in stretching guinea pigs out flat by the feet, and giving them a sharp blow upon the abdomen with a flat ruler. The animals reacted in various ways to the traumatism, most of them after a period of temporary quiet, became apparently well; but in from thirty-six to forty-eight hours they died with the symptoms of exhaustion or shock." In my opinion, if the pulse rate had been noted during the period of perfect health (?) following the injury, it would have been found extremely rapid and erratic; death being caused by dilatation or exhaustion of the heart. It is true, some changes were found in the cord; the gravest consisted in a vesicular swelling of the nuclear protoplasm, which, however, varied to a great extent; but these I am inclined to believe were secondary to the real cause.

We are all familiar with the agony produced by a blow on the pit of the stomach, which is always followed by a desperate effort to get breath, and by embarrassed heart action. That mental emotions or excitement are capable of producing shock in its varying degrees of severity is no longer a disputed question. Shock from this cause is evidenced by a rapid, thumping heart action and a feeling of constriction in the chest, and I believe, if inquiry were made, it would develop the fact that in many cases these symptoms were accompanied, or preceded, by pain or great uneasiness in region of solar plexus.

I have in my practice two or three individuals who consulted me in regard to a severe pain with which they suffer in the pit of the stomach whenever excited or frightened, and which is followed by palpitation of heart and dyspnoea.

To illustrate the condition, I could mention several cases which I have observed, but I will not consume your time in describing them, but will call your attention to a case, the history of which is known to us all, and which I consider a typical example. I refer to the case of the late William McKinley. I will not ask indulgence for a detailed description of the case, but will simply make a brief *résumé* of some of the important features, bearing on this subject, from the time of the operation, as follows: "No profound shock followed operation. From the time of operation to the end the pulse was rapid and erratic (ranging from 126 to 144 and never going below 120, except on two occasions when it declined to 118 and 112 for a very short time). His temperature fell. There was no abdominal tenderness, no meteorism, no muscular contraction. Examination of the blood showed no leucocytosis, and the fear of peritoneal sepsis gradually disappeared. On the sixth and seventh days heart stimulants, digitalis, adrenalin, oxygen in-

halation, etc., were resorted to, but there was no reaction from the stimulation. Patient suffered no pain, and in the absence of positive indications, hope was not abandoned until the seventh day.

The bullet which caused his death passed through both walls of stomach near its lower border; after passing through the stomach the bullet passed into the back walls of the abdomen, hitting and tearing the upper end of the kidney. Although part of the track of the bullet was found to be gangrenous, there was no sign of peritonitis or disease of other organs. The heart walls were very thin. There was no evidence of any attempts at repair on the part of Nature, and gangrene was said to be the cause of death." This latter statement I do not consider warrantable. The special feature to which I wish to direct attention in the above case is the total absence of all symptoms which would indicate a grave condition, with the single exception of the pulse rate; although death was gradually approaching from the beginning. The report announced on the sixth and seventh days that the heart would not react to any stimulation whatever. This, it seems to me, is not surprising; for a heart which is beating at the rate of 120 to 140 times a minute for six or seven days must certainly be thoroughly exhausted, and an exhausted muscle cannot respond to stimulation.

On September 12th, the sixth day after the injury, a bulletin was published which reported his condition as favorable, and which stated that his only complaint was of fatigue. This, in my mind, was the final warning signal and proof of an exhausted heart; for it was but a few hours from this time until dissolution was complete. The deceptive nature of these cases is further proved by the fact that the surgeons in attendance did not suspect the gravity of the case, as was evidenced by the daily official bulletins which reported his condition as very favorable and improving, from the very first day until the morning previous to his death. I do not mean to infer that I have arrived at any positive conclusion in regard to the cause of the condition described. But my observations of several cases, of which I consider the above a typical example, has proved to me that it is a condition, the nature of which, is as yet a puzzle to us all. After a great deal of thought and a careful consideration of the anatomy and physiology of the parts involved, and the relation of their functions with the symptoms produced, I am tempted to believe that injury or a perverted condition of the so-called "abdominal brain" is a factor in the production of the phenomena presented in these cases. If I have succeeded in awakening your interest sufficiently to lead you to an investigation and observation of this important centre, my purpose will have been attained.

THE PREPARATION OF THE PATIENT FOR NOSE AND THROAT OPERA- TIONS UNDER LOCAL ANÆS- THESIA.*

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In no other part of the body are operations considered so trivial as in the nose and throat. This opinion is due to various reasons; among others may be mentioned: 1. The laity, and not a few physicians, think they are unnecessary; (2) frequently a general anæsthetic is not required; (3) the patient's work and position require the operation to be performed in the evening or on Sunday, in order to return to work the following day; (4) the patient must be assured it is not serious before he will consent to an operation.

When a general anæsthetic is required, the preparation, which is the same as for other surgical procedures, is universally followed. Too little attention, however, is given to the previous treatment in operations that are done under local anæsthesia, and for this reason I call your attention to the subject. The nasal cavities and nasopharynx are in such close proximity to most important structures, that operations in this area should not be performed without taking all necessary precautions.

The aim in all treatment is to obtain curative results, and these will be the more nearly assured when the patient is in the best physical condition. My thoughts were first directed in this line in an operation to correct a deflected septum. It was after much persuasion and the promise that if it proved too painful, ether would be administered, the patient consented to have it performed under cocaine. He was, therefore, prepared the same as if ether had been intended. The shock from the operation seemed less and the healing was more rapid than in cases not thus prepared. Since that time (three years) I have paid particular attention to this subject; in some cases the patient was prepared the same as if ether was to have been administered, in others circumstances allowed but little or no preparation.

I am fully convinced that preliminary treatment in all cases will well repay the trouble; complications will be less frequent, and when present will be far less severe. That it can be carried out without loss of time or inconvenience to the patient leaves no excuse for its omission, except in rare instances when immediate operation is necessary.

The preliminary treatment may be divided into local and general.

Local.—The better the condition of the mucous membrane at the time of the operation the more successful will be the results. The local treatment most useful consists of alkaline solutions carefully sprayed or sniffed in the nostrils from the palm of the hand; and oily solutions, containing menthol, camphor, carbolic acid, with some of the essential oils, as cinnamon, eucalyptus, and gaultheria, applied once a day on pledgets of cotton. This treatment will remove the excess of mucus and relieve the congestion, and should be applied for a week or more before the operation. In the throat, an alkaline gargle, to which astringents, such as pinus canadensis and hamamelis, are added, will prove useful.

Systemic.—The general elimination should be looked after during the time of local treatment. Haig has shown that the waste products of metabolism circulating in the blood cause contraction of the arterioles and lessen nutrition, thus hastening disease processes and interfering with the healing after surgical treatment. Salines, to empty the intestinal tract are useful, but more than this is needed. Abdominal surgeons have learned that, after repeated purging, the bowels still contain a great amount of fecal matter. Salines repeated at varying intervals as the condition indicates, with laxatives to keep the bowels active and general tonics to stimulate the functional activity of the various organs, will give the best results.

The mucous membrane of the respiratory tract is affected by the condition of the skin and the activity of the kidneys, hence diaphoretics and diuretics are useful in the systemic treatment.

Antiseptics.—Strong solutions of mercuric chloride and carbolic acid cause intense inflammation and, therefore, cannot be used. We must rely upon hydrogen peroxide, strict cleanliness, and absolute asepsis, so as not to introduce bacteria at the time of the operation and thus infect the wound.

Local Anæsthetic.—Cocaine, in 4 per cent. solution, in my hands has proved the most satisfactory. Pledgets of cotton, wet with this solution, are applied for thirty minutes to one hour, varying according to the time required, and the area and extent of the operation. For septum and sinus cases, one hour is preferable. The packing is removed and fresh applications are made two or three times; particular care being taken to press the cotton closely around the area of operation.

Although eucaïne has received the endorsement of leading laryngologists, to me it has been disappointing. I have failed to get satisfactory anæsthesia by applying it to unbroken mucous membranes. After the operation has been begun and the reapplication of the anæsthetic is necessary, the action of eucaïne is efficient and I then use it in preference to

* Read before the Northwest Medical Society of Philadelphia, January 6, 1903.

cocaine, on account of the possible systemic effects of the latter.

Adrenalin or suprarenal extract, applied just before the operation, deepens and prolongs the anæsthesia of cocaine and eucaïne, contracts the arterioles and blanches the tissues to an extent that allows of but little or no hæmorrhage. The prevention of hæmorrhage is of great help, as it gives the operator a clean field so that he may clearly see the area of operation. That adrenalin increases the tendency of secondary hæmorrhage, is asserted by some and denied by others of equal authority. My experience coincides with the former. I use it when it is needed to give a clear view for operating; this is of the first importance, but I always expect secondary hæmorrhage and rarely escape it.

When the surgeon has the full confidence of the patient, the assurance that he will experience but little or no pain allays unnecessary anxiety and proves a useful adjunct to local anæsthesia.

Inhibition.—For a long time, in nasal operations performed under local anæsthesia, even when fresh solutions of cocaine had been applied for an hour. I frequently found it difficult for the patient to endure the operation. They said it was not so painful, but a choking, smothering sensation was experienced, referred to the throat, neck, and region of the heart. After a few moments' waiting they could bear to proceed; but these interruptions would occur throughout the entire operation. These manifestations are most marked when operating upon the middle turbinate and ethmoid cells. The trouble is caused by reflex inhibition, transmitted from the areas supplied by the trifacial, glossopharyngeal and recurrent laryngeal nerves, to the cardioinhibitory and pulmonary branches of the pneumogastric. Particular attention has been called to this subject by Dr. William H. Good, in a paper read before this society at the June meeting, 1902 (*American Medicine*, August 23, 1902); in an article by George W. Crile, On Experimental and Clinical Research into Cocaine and Eucaïne (*Journal of the American Medical Association*, February 22, 1902); and T. Lauder Brunton (*West Riding Asylum Reports*, 1874).

In many cases, when the degree of local anæsthesia is sufficient to allow operating without pain, or in long operations when the sensibility begins to return, the inhibition is so marked as to give great suffering, or require the reapplication of the anæsthetic. The well known action of atropine in lessening the activity or paralyzing the terminal endings of the pneumogastric nerve, has led to its use to prevent reflex inhibition. The results have been very satisfactory. In a number of cases I gave it a fair test. To the patient in the best physical condi-

tion, atropine was not given, and in the more feeble and nervous, atropine was given; in each instance, those to whom the atropine was administered stood the operation far better and were noticeably less shocked after its completion, and even the next day. My rule now is to give atropine for six to twelve hours before the operation in an amount sufficient to cause slight dryness of the throat; $\frac{1}{200}$ to $\frac{1}{100}$ of a grain, repeated every two to four hours until the desired effect is obtained.

In conclusion, I would urge the importance of the preliminary treatment of patients for nose and throat operations, briefly outlined as follows:

1. Local treatment, to free the nose and nasopharynx from mucus and relieve congestion.
 2. Laxatives, diaphoretics, and diuretics, to stimulate elimination.
 3. Tonics, to tone up the nervous centres and restore general functional activity.
 4. Atropine, to prevent reflex inhibition.
- These precautions will assure less shock, prevent complications, and hasten repair.

1807 CHESTNUT STREET.

THE LEUCOCYTES IN THE SUMMER DIARRHŒA OF INFANTS.

By JOHN ZAHORSKY, M. D.

ST. LOUIS.

It cannot be said that the study of the leucocytes in the gastroenteric infections of infants has been exhausted; on the contrary, the actual studies have really been very few, and many contradictory reports were made by the earlier investigators.

But the studies of Japha (*Jahrb. f. Kinderh.*, 1901), and Knox and Warfield (*Johns Hopkins Hosp. Bull.*, July, 1902) have placed this subject on a definite basis. In round numbers they find that the healthy infant has about 13,000 leucocytes in the cubic millimetre. The differential count in the normal infant is approximately as follows:

Polymorphonuclears	40 per cent.
Lymphocytes	55 per cent.
Large mononuclears.....	5 per cent.

In gastroenteric disease the leucocytes are increased in number, although this increase is too variable to be of any diagnostic importance. As a rule the leucocytes are increased in proportion to the severity of the intoxication, but the exceptions are very numerous. Yet one change stands out very preeminently, and that is the relative increase in the polymorphonuclears and the diminution in the lymphocytes. The polymorphonuclears become much greater in number and the ratio is reversed.

Recently, a severe epidemic of gastroenteric infection occurred in the Bethesda Foundling Home, St. Louis, and in the study of the cases the leucocytes were counted in many cases.

The infection probably occurred through the milk, and the cases were diagnosticated, clinically, as enteritis and gastroenteritis. Symptoms of colitis (mucus and bloody stools) were not present. The onset was usually sudden with vomiting and diarrhœa. The stools were thin and green. An irregular fever followed. The depression was very severe, and the mortality very high, although the milk was discontinued at once, and the gastrointestinal tract was thoroughly cleansed.

The following cases are very briefly reported:

CASE I.—Boy, age eight months, sick eight days with severe enteritis. Temperature as high as 103° F. in the afternoon. Looks very sick.

Leucocytes, 12,330. Differential count: Polymorphonuclears, 55; lymphocytes, 32; large mononuclears, 8; transition, 5 per cent.

On the seventeenth day of illness, the infant had not improved, and the ultimate recovery was doubtful. The leucocytes:

Total number, 18,520. Differential count: Polymorphonuclears, 53; lymphocytes, 32; large mononuclears, 8; transition forms, 5 per cent.

CASE II.—Female, age nine months. Very severe gastroenteritis. Died after thirteen days of illness. Blood count on the ninth day of disease.

Leucocytes, 18,050. Differential count: Polymorphonuclears, 51; lymphocytes, 29; large mononuclears, 11; transition forms, 7 per cent.

CASE III.—Boy, age eight months. Severe enteritis. Died in six days, and at the autopsy a severe enteritis with ulceration of the duodenum was found. Blood examination on the fourth day of the severe symptoms. Leucocytes, 33,160. Differential count: Polymorphonuclears, 61; lymphocytes, 25; mononuclears, 7; transition, 7.

CASE IV.—Female, age seven months. A less severe enteritis ending in recovery after three weeks. Blood examination on the second day of illness. Leucocytes, 12,640. Differential count: Polymorphonuclears, 41; lymphocytes, 50; mononuclears, 6; transition forms, 3.

This case is peculiar in that the differential count obtained resembles that in normal infants. Another count was made nine days later when the leucocytes were about the same—12,300.

CASE V.—Female, age seven months. Disease moderate in severity. Leucocytes, 14,360 on seventh day of the disease.

CASE VI.—Female, age three months. Rather mild infection with malnutrition. Leucocytes, 9,290 on seventh day of disease.

CASE VII.—Male, age five months. Disease of moderate severity, gradually becoming worse and ending fatally in three weeks. Leucocytes on tenth day of illness, 11,990. Leucocytes on nineteenth day of illness, 21,280.

In order to make the comparison, the white blood corpuscles of a healthy infant were counted.

CASE VIII.—Normal healthy infant, eleven months old. Leucocytes, 12,640. Differential count: Polymorphonuclears, 28; lymphocytes, 60; large mononuclears, 7; transition forms, 5 per cent.

I must conclude, with Knox and Warfield, that the leucocyte count in the summer diarrhœa of infants is too variable to be of any special diagnostic importance. But I believe that a differential count is extremely valuable in estimating the intensity of the intoxication. This is a very simple procedure, and can be done with a cover slip preparation obtained at the bedside and examined at the office. In studying the figures given by Japha and Knox and Warfield, also my own observation, I must conclude that the normal ratio of the polymorphonuclears to the lymphocytes in healthy infants is 2 to 3 or 4. In gastroenteric disease this ratio becomes changed; the leucocytes gradually increase and the lymphocytes diminish, when the ratio becomes 1 to 1, 4 to 3, 3 to 2, 2 to 1, and 3 to 1 successively. This predominance of the polymorphonuclears, therefore, becomes a corroborative sign of the intensity of the morbid process. A great relative increase in the polymorphonuclears means that the baby is pretty sick, whatever other signs may indicate.

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THE PROGNOSIS AND ORTHOPÆDIC TREATMENT OF ACUTE ANTERIOR POLIOMYELITIS.*

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(Concluded from page 453.)

The orthopædic treatment rightfully begins as soon as the first acute symptoms have subsided and has for its objects:

First, to promote spontaneous recovery and to stimulate the return of activity.

Second, to prevent deformity.

Third, to cure deformity.

Fourth, to restore the joint equilibrium, to make good lost power and perfect functional recovery.

Fifth, to destroy dangle joints and convert the limb into a useful stump.

The sheet anchor of all expectant treatment is electricity. More than all other agencies it has the power of stimulating the muscles and nerves and of keeping up an activity which approaches the physiological. Where the faradaic irritability is weakened or lost we begin stimulation with a slowly

* Read at the annual meeting of the Ohio State Pediatric Society, held at Toledo, Ohio, May 27, 1902.

interrupted galvanic current. A word of warning as to the electrodes; they should be large and always kept moist, lest we burn the poorly nourished skin. The current is best applied locally over the muscle belly or in the form of Erb's ascending spinal current. As soon as the faradaic irritability returns, mild stimulation with a slowly interrupted current should be resorted to. To be of any service the electrical current must directly stimulate the nerves and muscles; electrical massage, brushes and electrical baths, the static and sinusoidal currents being entirely worthless. Birdsall reports an interesting result from the use of electricity alone in a three year old child, seen sixty days after the onset of the paralysis. Faradaic irritability was lost in the afflicted muscles. Electrical treatment was faithfully carried out and in five months the patient could walk. Twice during the treatment, the electricity was discontinued for a couple of weeks, at which time the patient became distinctly worse. Immediately upon resuming treatment improvement was noticed.

To electricity are to be added ordinary hot baths and massage, in séances of from fifteen to thirty minutes daily. Their united effect is to prevent excessive atrophy, improve nutrition, stimulate contraction, increase circulation, and raise the temperature of the parts. They keep the muscle in a healthy stimulation and favor the regeneration of the nerve from the muscle end-plates upward, so that when the newborn nerve force is strong enough to follow its old paths downward it finds healthy muscles ready to receive and utilize it (Auboin).

The setting up of negative contractures exercises muscles which even the electric currents fail to arouse into action (Régner). It gathers up a relatively large amount of nerve energy and concentrates it upon a small amount of work. This latter may be intensified by reducing the resistance to be overcome, as when dense salt baths are used to float the limb. The patient thus finds himself able to execute slight motions otherwise impossible.

Passive motion, gymnastics, and careful teaching carry out the advances made by the aforementioned methods and may often accomplish a great deal. If but a few toes on either foot can be moved, the patient ought to be seated in the saddle of a walking machine and be taught to paddle with those toes. If the spine or arms are paretic, a corset or a Sayre's suspension attached to such a machine will permit the erect posture to be assumed (Bruns). I attribute not a little of my success in the case of Albert S., to a corset, braces, and walking stool, all of which we were able to discard after twelve months. Good judgment ought to prohibit the squatting in invalid chairs, the creeping or rolling on the floor, or the walking on all fours in any of

these cases. The use of crutches must entirely be prohibited, except in picked cases, lest the patient and the parents learn that locomotion can be attained quicker via crutches, and refuse the more tedious method of braces or tendon transplantation, and as a result get atrophy and shortening from disuse.

It is the whole duty of every practitioner to insist upon treatment, if only to prevent deformity. Among all the agencies at our command for this purpose the exercise of common sense and good judgment stands first in point of value. One example will suffice to make my meaning clear; the weight of the bed clothes upon the foot is a great factor in the formation of a pes equinus, and yet I have never seen any one case in which a clothes cradle has been used to prevent this. I venture the assertion that every case of Pott's fracture treated by the same men who had charge of these cases would have such a cradle the first thing. Gymnastics and passive motion, together with a light brace, will prevent deformity in every case. Purposive movements in a corrective direction are very useful and can be made enjoyable by having the children try to ring bells or move clappers; a combination of strings and pulleys enables one to make any chosen movement ring bells, and in the case of fingers or toes simple tunes might even be played.

The deformities arising from neglected contractures are among the most severe with which the surgeon must deal, and prevent in great measure the proper use of whatever muscular power which might have been left, and more than any other cause prevent the return of function. Deformity causes the muscles to work at disadvantageous angles, and when great enough to dislocate the tendons, can even cause sound muscles to assist in extending the deformity (Goldthwait). The rigid deformities are caused by the permanent contractures of non-paralyzed or partially paralyzed muscles, while the flaccid deformities after total paralysis about joints are caused by the constant unopposed position in any one direction due to gravity or other external force. The flaccid deformities and the mildest of the rigid ones can be overcome by the proper use of braces, extension, exercise and massage. For the rigid ones tendon transplantation, forcible redressement, tenotomies, and fixation in a overcorrected position suffice.

After from two to three years of active treatment spontaneous recovery has made good all the lost power, it can replace (Coolidge, Kunick, Vulpius, Parrish, Drobrick), and we may proceed by means of operative interference to perfect the cure by restoring the joint equilibrium, and repairing lost motion (McKenzie). After we have first succeeded in correcting any existing deformity (Parrish, Franke,

Lorenz, White, McKenzie) we must make a careful study of the activity, condition, and power of the healthy muscles, making use of electricity and dynamometers. The use of needle electrodes thrust into the muscles or of sharp dynamometers hooked subcutaneously into a tendon is justifiable. After a careful survey of the field of work, always keeping before us the axiom that surgical intervention cannot add to the sum total of the muscular energy present, but can only distribute it where it is most useful, after carefully weighing the work to be done with the power remaining in a muscle or group of muscles and determining its efficiency at the angle through which it is to work, the surgeon may proceed to utilize the chosen muscles for tendon transplantation.

Introduced in 1882 by Nicoladoni, of Gratz, performed and advocated later by Parrish of New York, tendon transplantation has been appreciated and come into general use only in the last few years. An overwhelming number of cases has now demonstrated its enormous value in restoring the function of paralyzed parts, preventing further deformity and turning excess of harmful motion into channels of usefulness. The technique of the operation is fairly simple. Free longitudinal incisions lay bare the tendons to be united. The cut may even be extended to the muscle bodies so that their condition can be noted; a healthy muscle is dark red, a weakened one rosy red, while a completely degenerated one is yellow. The hæmostasis must be perfect. The tendons are preferably united above or below the constricting annular ligaments. Where this is not possible, the ligament may be undermined, or if cut through should be carefully sewn up with catgut, as should also the divided tendon sheaths; as Senn and Hoffe have shown that healing takes place principally from the sheath. The methods for uniting tendons have caused much discussion; the button-hole method of Goldthwait may be cited as one of the best. The part should be held in an overcorrected position and the tendons should be united with a fair degree of tension; too much causes sloughing, too little detracts from the power of the muscles. The tendons can either be lengthened or shortened by plastic operations, or heavy silk ligatures may be used as tendons, as advocated by Lange. There are in general four ways of transplanting tendons:

1. Active transplantation; dividing the active tendon and uniting it to the tendon of the paralyzed muscle.
2. Passive transplantation; severing the tendon of the paralyzed muscle and uniting the distal end to the uncut tendon of the healthy muscle.
3. Partial transplantation; splitting the tendon of

an active muscle and uniting part of it to a paralyzed muscle. Lange substitutes for this heavy strands of silk when the tendon is too small to permit splitting.

4. Periosteal implantation of the whole or a portion of the healthy tendon.

It would be useless to attempt to enumerate all the various combinations which have been tried successfully. Certain muscles generally escaping paralysis, such as the supinator longus and the extensor proprius hallucis (Parrish), have been used more than others. The muscles and tendons at the elbow, wrist, knee, and ankle, being more superficial, give the best results. For talipes equinus, Vulpius transplanted the peroneus longus to the tibialis anticus; for paralysis of all the flexors of the ankle he transferred the tendons of the peroneus longus to the extensor longus digitorum, and the tendon of the peroneus tertius to the tibialis anticus. Goldthwait united the peroneus longus to the paralyzed gastrocnemius; for paralysis of the extensor longus digitorum, Lange split the tendon of the tibialis anticus, which afterward successfully performed the functions of both muscles. Upon the hands and arms a number of the most brilliant operations have been performed. Keiler replaced the extensor communis digitorum with the extensor carpi radialis and ulnaris, so that after seventeen years of paralysis, the patient can now use the fingers in writing. The extensors of the fingers have been brought through the interosseous space and made to do duty as flexors. Franke has operated upon the shoulder muscles with remarkable success.

The results of tendon transplantations have been uniformly good. Extensor muscles have learned to act as flexors and vice versa, and where a tendon has been split, one muscle even has successfully performed these two distinct duties (Cone). The number of successful cases is legion; a few years ago Bülow-Hansen collected 75 cases with over 70 per cent. of successful results. Tubby reports 11 cases, all with good results. White, 11 cases, most of which are satisfactory. Vulpius, 80 cases, with splendid results. Drobnick, 7 cases before 1895. Gibney, 67 cases with 79 per cent. of improvement and 21 per cent. of failure. Franke writes "There is no longer a hopeless case of musculospiral palsy since we can do tendoplastic." More than to recovery of function, tendon transplantation gives a new impetus to the recovery of the neighboring structures. Drobnick tersely states "it puts new life into the limb." The cold cyanotic appearance often disappears and the neighboring muscles often spring into voluntary activity while joints lose their flail-like character. Muscle transplantation is rarely performed.

While tendon transplantation should always be the procedure of choice, such choice is often denied us by the cupidity and ignorance of the parents who dislike the idea of surgical intervention. In such cases we are compelled to substitute braces for the more satisfactory surgical procedures. Braces are, however, costly, get out of repair easily, are soon outgrown, and their sale and application is mostly in the hands of druggists, truss, and instrument makers, quack institutes, and brace venders. While it is true that, by means of elastic bands, springs, or sword blades, elastic tension may be exerted in almost any direction, the spring brace lacks the essentials of the normal muscular contraction. The last quarter of the arc of motion, necessary for full extension or flexion, is always the weakest in braces. Where such braces must be used we must use the same care in mapping out the case as in planning a tendon transplantation.

Flail joints in total paralysis or dangle limb can always be made serviceable by means of a resection called arthrodesis by Albert, who introduced this method in 1881. It produced solid stumps, and should be performed where all attempts at creating a useful member through other means have failed. It is a perfect substitute for amputation and the fitting of an artificial limb, which never should be done; and it can turn to active use many of these flexed, dangling, useless limbs in patients who are now hobbling about with the aid of crutches.

In closing, let me quote from an address by Lange: "I have not chosen this subject without a purpose; it is to show what modern orthopædic surgery can accomplish. Orthopædics must be taken out of the hands of brace makers, schools of physical science, masseurs, and other quacks (osteopaths). In this struggle the many absolutely successful results of tendon transplantation take the place of heavy braces, bandages, crutches, and hydropathic institutions. Orthopædic surgery is no longer a trade but a science; a science which demands the same thorough preparation and complete medical education, and gives the same chance for accurate observation and results, as any other branch of our medical profession."

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STRAIGHT SPLINTS IN ELBOW FRACTURES.

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Before the days of the x ray, fractures of the elbow joint resulted in more or less deformity.

Since the dawn of the x ray, combined with the exercise of common sense, instead of blindly following the advocates of special splints and adhering to dogmas and routine measures, the unsightly "gunstock" deformity with marked limitations of motion is the exception, rather than the rule, after elbow fractures.

The experimental observation of three cases of fracture of the elbow leads us to believe that restoration of function with little deformity follows the careful attention given by the surgeon in these conditions.

All of us realize how difficult it is to retain the fragments of fractured condyles in their proper position, owing to the leverage of the bones of the forearm with which the lower fragment remains attached, as was experienced in one case, where the external condyle was fractured, with a longitudinal fissure extending into the elbow joint. Here we had much œdema to deal with, and the arm was put up in a slightly obtuse angular splint for a few days; but just as soon as possible it was changed for an anterior straight splint.

Following the advice of many authors, hot fomentations of arnica were used. On the third day the arm was covered with large blebs and inflamed macules. This method of treatment was stopped at once and plain sterile gauze applied, after which the condition rapidly cleared up.

At the end of the fourth week massage and slight movements were resorted to. At the end of the fifth week, active passive motion was carried out. This patient made an early recovery. There was no

"gunstock" deformity, and the patient was able to brush her hair at the expiration of the seventh week.

In the treatment of this case you will notice that the external application of arnica tincture was not only useless, but productive of harm. Such a method of treatment seems opposed to modern surgical principles.

Local applications are never required in fractures about a joint, since the aseptic traumatic swelling rapidly subsides after the fragments are correctly approximated and the parts put at rest.

In a fracture of the external condyle and olecranon, where there was little or no marked displacement of the fragments, the arm was put up in a simple straight splint, which extended from the upper third of the arm to the wrist, and had a slight divergent angle at the elbow. A small pad of cotton was laid in the bend of the elbow to fill in the curve. The forearm and hand were kept supine throughout the treatment. To prevent the olecranon from becoming displaced, small straps of adhesive plaster were passed just above the fragments down and around the splint.

Passive motion was not instituted till all dressings were discarded, which was at the end of the sixth week.

Excepting a marked temporary atrophy of the anterior muscles of the forearm and arm, the results were quite satisfactory. In this case the well known "gunstock" deformity was absent.

The third case was one of fracture of the internal condyle and olecranon, with a backward dislocation of the radius. An exact diagnosis without the use of the x ray would have been impossible. In this case the x ray revealed conditions which have entirely changed former methods of treatment.

Many of us are unable to deny that fractures about the elbow joint have gone unrecognized on account of the swelling of the affected parts. It is in such cases that a glance by an experienced eye through the fluoroscope furnishes a correct diagnosis.

In the case of dislocated radius the deformity was reduced at once, the olecranon approximated as carefully as possible and retained by means of adhesive straps. There was no noticeable displacement of the condyle. The arm was put up in a slightly divergent splint and retained in place for five weeks. At the end of the tenth week fair motion was regained, but limited to an angle of forty-five degrees.

You will notice the simplicity of the dressings made use of in the three cases quoted. The only splint used was a narrow light board, which was long enough to extend from the upper third of the arm to the wrist, and which had a slight divergent angle at the elbow. A little padding of cotton was laid in the bend of the elbow to fill in the hollow.

The tendency to use complicated fracture dressings in injuries about the elbow is still practised. The application of these complicated dressings is expensive and uncomfortable to the patient.

You will note that the three cases quoted were treated by keeping the arm in the extended position. There is quite a diversity of opinion existing among surgeons in the treatment of fractures involving the elbow, and as a result much bad surgery is practised. Many advise treating these elbow injuries by the means of the flexed position. In this position the action of the biceps muscle has much to do with the creation of the angular distortion which often follows these lesions; then, too, in the flexed position of the elbow, any slight displacement of the articular surface of the humerus is often overlooked.

A well known authority states that the flexed position of the elbow is more favorable to ankylosis than the extended position, because there is more room for neoplastic deposits in the anterior muscular structures which are plicated during flexion.

Practitioners who see few of these cases are less liable to appreciate the probability of the well known "gunstock" deformity resulting from treating an elbow fracture in a flexed position, though many have not recognized the cause.

Professor Allis asserts that treating fractures of the elbow in the flexed position "causes deformity by impairing the external angular deviation of the upper extremity." The loss of the carrying angle of the arm after treatment of condyloid fractures by flexion is a common occurrence.

In none of these cases was passive motion resorted to early, in one case it was postponed until all dressings were discarded.

Allis, Stimson, Pilcher, and many other well known surgeons decry the use of passive motion till union is complete. If it is commenced early it is apt to set up an arthritis or to cause displacement of the fragments.

Believing that the methods which have been adopted in these few cases are founded upon good anatomical reasoning, and that the extended position, combined with simple dressings, is superior to the flexed position in the treatment of elbow lesions, I cannot but think that a trial of the methods proposed in this paper will confirm their value.

Therapeutical Note.

A Dentifrice.—The following dentifrice, according to *Presse médicale* for August 8th, is an admirable antiseptic for the mouth:

- B** Thymol $\frac{1}{2}$ gramme ($7\frac{1}{2}$ grains);
Sodium borate..... 5 grammes (75 grains);
Carbolic acid..... 2 grammes (30 grains);
Rose water..... 200 grammes ($6\frac{2}{3}$ ounces);
Mint alcohol..... 15 grammes ($\frac{1}{2}$ ounce);
Boiled water..... 300 grammes (10 ounces).
M. A few drops in a glass of water.

Correspondence.

LETTER FROM TORONTO.

The Canadian Medical Association,

TORONTO, September 5, 1903.

The thirty-sixth annual meeting of the Canadian Medical Association was held this year in London, Ontario, from the 25th to the 28th of August, under the presidency of Dr. W. H. Moorhouse, of that city. It proved to be the second largest meeting ever held, the attendance reaching over three hundred and almost equalling that of the meeting of last year, which was held in one of the two leading medical centres of Canada, Montreal. It was just ten years since the association had met in London, when the attendance was less than one hundred. Apparently this is the "growing time" of the Canadian Medical Association. Among members of the profession who were present from the United States and contributed to the success of the meeting, either by reading of papers or by joining in discussions thereon, were Dr. George M. Gould, of Philadelphia; Dr. E. G. Wood, of Nashville, Tenn.; Dr. A. L. Benedict, of Buffalo; Dr. Alexander Hugh Ferguson, of Chicago; Dr. Theodore A. McGraw, and Dr. J. H. Carstens, of Detroit; Dr. George F. Butler, of Alma, Mich., and Dr. E. Hornibrook, of Cherokee, Iowa. Dr. Angus McLean, of Detroit, was the representative from the American Medical Association.

The first paper read was one by Dr. James Newell, of Watford, Ont., on The Surgical Treatment of Hallux Valgus and Bunions. Dr. Newell operates by a long, internal incision opening up the joint and completely dividing the ligaments. Dr. R. Ferguson, of London, presented a specimen of an incompletely developed uterus and appendages removed from the sac of an inguinal hernia. The patient was thirty-two years of age, unmarried, who had never menstruated. The external genitals and mammary glands were normally developed, but the vagina was a cul-de-sac without trace of cervix uteri or os. An interesting discussion took place upon the Treatment of Typhoid Fever, opened by Dr. W. P. Caven, of Toronto. The conditions calling for active treatment, he said, were tympanites and hæmorrhagæ. In the former Dr. Caven recommended turpentine and asafoetida; in the latter, morphine. Sponging should be a routine practice in every case; tepid below 102° ; above that degree, cold sponging. Dr. Herald, of Kingston, Ont., followed in the discussion. In ordinary cases he did not employ internal medication. When there was hæmorrhage, he considered the employment of the ice bag as beneficial as morphine. Dr. McCallum, of London, lauded strychnine throughout the at-

tack as the most important agent in the treatment of typhoid fever. Dr. J. T. Duncan, of Toronto, read a useful paper entitled *The Size of the Pupils as an Aid to Diagnosis*. A paper which attracted a good deal of attention and a large audience was that by Dr. Jennie G. Drennan, of St. Thomas, on *The Physiological Generative Cycle in Woman*. According to this writer, evolution is incident to all forms of life. Adaptation to environment and heredity is a factor in every phase of life. The functions of the female mammal are ovulation, conception, and gestation. This cycle has become interrupted by ovulation and menstruation, as a result of adaptation to a pernicious environment. Accordingly, improved environment will in time be the remedy to effect the restoration of the natural cycle. The presentation of a case by Dr. Hadley Williams, of London, of a gunshot injury of the shaft of the humerus, with destruction of two inches of the musculospiral nerve, also attracted considerable attention. Non-union and complete paralysis were present when the case was first seen by Dr. Williams, four months after the occurrence of the injury. An operation was performed, but was useless. A second was undertaken in which the bones were maintained in apposition by a silver plate secured to the shaft as a splint by means of four silver screws. In six weeks the bones had united and in nine months after the suture of the nerve ends the paralysis had disappeared. Dr. Henry Howitt, of Guelph, reported two cases of Hour Glass Contraction of the Stomach, one of which was complicated by an ulcer on the posterior wall of the stomach and the other by cancer. The former had a history of gastric distress of thirteen years' standing. This patient made a complete recovery. The case complicated by cancer occurred in a man seventy-three years of age. He recovered and lived for a year in apparent comfort.

Dr. Alexander Ferguson complimented Dr. Howitt upon his treatment of these cases. Dr. J. Alexander Hutchinson, of Montreal, reported five cases operated on for typhoid perforation. Only one was successful.

The annual presidential address was delivered on the evening of the first day before a crowded assembly, by Dr. Walter H. Moorhouse, of London, dean of the Medical Faculty of the Western University. He dealt with medical education in Canada, the importance of attending medical conventions, Dominion registration, patent medicines, the alcohol evil, and the necessity of resisting charlatanism in all its forms. Following the presidential address, Dr. George M. Gould, of Philadelphia, read a paper on *The Role of Eye Strain in Civilization and Medicine*, taking up eleven notable instances from the history of the

last century. Then followed a lantern lecture on the Open Air Treatment of Consumptives, conducted by Dr. J. H. Elliott, medical superintendent of the Muskoka Sanitarium. The proceedings of the first day closed with a paper by Dr. E. J. Barrick, of Toronto, on *The Municipal Sanatorium*, which was followed with a resolution calling upon the government to enact legislation providing for aid for municipal sanatoria for consumptives, which was carried unanimously.

On the forenoon of the second day clinics and operations were conducted at the hospitals, of which London has two, modern, up to date, and well equipped. At St. Joseph's Hospital Dr. John Wishart, of London, performed Halsted's operation for removal of the mammary gland. At the Victoria Hospital Dr. A. H. Ferguson performed a thyroidectomy and his own operation for hernia. Dr. Theodore A. McGraw, of Detroit, did the preliminary steps of gastroenterostomy with the elastic ligatures in two cases, but both cases were too far advanced in disease to warrant completing the operations. Much regret was expressed when Dr. Matthew D. Mann, of Buffalo, wired that he would not be able to be present. Dr. Mann was to have delivered the address in gynecology. Dr. George F. Butler, medical superintendent of the Alma Springs Sanitarium, read a paper on *The Interrelations of Diabetes and Other Constitutional Diseases*, which was highly commended by Sir James Grant, of Ottawa, Dr. R. A. Reeve, of Toronto, and Dr. Samsom, of Windsor. Dr. McGraw, of Detroit, read a paper on *The Practical Considerations of Intestinal Anastomosis*, in which he fully demonstrated the employment of the rubber ligature. The address in surgery was delivered by Dr. Alexander Hugh Ferguson, of Chicago, and the address in medicine by Dr. H. A. McCallum, of London. Both proved very able productions. The paper by Dr. E. G. Wood, of Nashville, Tenn., on *Cardiac Affections in Influenza*, proved an exceedingly interesting one, and excited keen discussion. Dr. Alexander McPhedran, of Toronto, gave a paper on *Amyotrophic Lateral Sclerosis*, with photographs. In the evening of the second day the visiting members of the association attended a banquet at the London Asylum, given by the profession of London. A special committee was appointed to consider the advisability of inviting the British Medical Association to Toronto in 1905. Vancouver, B. C., was selected for the place of meeting in 1904, with Dr. S. J. Tunstall, of that city, for President. Dr. George Elliott, of Toronto, was reelected general secretary, and Dr. H. B. Small, of Ottawa, to the position of treasurer.

NEW YORK MEDICAL JOURNAL

AND

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FRANK P. FOSTER, M.D.,
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NEW YORK, SATURDAY SEPTEMBER, 12, 1903.

THE NEW YORK STATE HOSPITAL FOR THE
NORTHEASTERN COUNTIES.

Last May the governor of the State of New York approved an act of the legislature providing for the establishment of a State hospital for the insane at some place in the northeastern part of the State north of the county of Rensselaer, the locality to be chosen by the Commission in Lunacy subject to the governor's approval. The act wisely specified that the site should be easily approached by railway and other means of communication. In view of the general confidence felt in the commission, it is hardly to be supposed that the governor will fail to approve of any site that it may choose. The selection therefore lies practically with the commission.

The town of Whitehall has been prominently talked of as a suitable place for the new hospital, and we learn that the townspeople, being naturally desirous of securing such an important institution for their municipality, have engaged to guarantee to the State the sum of \$20,000 as a contribution to the amount necessary to buy land and build and equip the hospital. Whitehall admirably answers the requirement specified in the act, that, namely, of accessibility. It is situated on the main line of the Delaware and Hudson Railroad, one of the great trunk lines leading to the Adirondack region and to Montreal. Though not quite halfway distant from Albany on the road to the Canadian frontier, Whitehall is approximately at the centre of population of the counties forming the district that the

new hospital is designed to benefit, being situated on the edge of the Adirondacks and separated from Lake George only by the mountains, in a fine farming section of the State. It can provide a thousand acres of rich land for a site, situated at an elevation overlooking to the south a rich valley and to the north Lake Champlain. The climatic conditions in both summer and winter are salubrious and there is an abundant supply of good water.

It is desirable that such an institution as a State hospital for the insane be situated on the outskirts of a town of considerable size or in the immediate vicinity of such a town, for this reason if for no other, that there may be suitable hotel accommodations for the patients' visiting friends. Moreover, many of the employees—of whom there will probably be several hundred in this instance, as we understand that the hospital is to be capable of holding 3,000 patients—will prefer to live outside the hospital grounds, and it will be well, we think, that they should do so. All things considered, it seems to us that the town of Whitehall is an ideal place for the new institution.

THE MADRID INTERNATIONAL CONGRESS.

We have been told by some British and American "*congressistes*" of the extortion practised upon them by certain people of Madrid during their attendance at the congress last spring, and we have been told something of the blunders and unpleasantnesses which apparently were not due to discreditable intentions, but we have nowhere else encountered such a vivid and entertaining account of these things as in the July number of the *American Journal of Insanity*, which contains the narrative and comments of Dr. A. E. Macdonald, of New York, the well known alienist.

It is not an easy matter to make for such a gathering arrangements that will work smoothly in all respects, but we do think that our Spanish friends ought to have done much better than they did. Of course we are not now referring to the proceedings of the sessions, but to the means taken to facilitate the work of the "*congressistes*" and to render their life from day to day bearable. Perhaps the extortion of keepers of lodging houses could not have been prevented, because it was not foreseen. We therefore fully acquit our Madrid brethren of negligence so far as that matter was concerned, but we

find it difficult to account for the wretchedness of the methods pursued in the issue of registration cards and invitations to festivities, in the delivery of letters, and in the daily bulletins of information.

But let us acknowledge our own share in discredit as recorded by Dr. Macdonald. At the opening session cordial addresses were delivered before the representatives of each nation in turn. They all responded appropriately, except the representatives of the United States, who seem to have been all absent. "After a second call and a painful pause," says the writer, "the roll call went on to the end of the list. Somebody had blundered." "Of course," he continues, "the incident was promptly assigned a definite relation to the late unpleasantness between the two countries, and our own people, or the majority of them, went to bed with the firm belief that the eagle's tail feathers had been feloniously trifled with. Next day it was found that the Spanish lion had worked up insomnia over the deliberate insult from the Americanos, and gradually the temperature subsided and bloodshed was averted."

THE CANADIAN MEDICAL ASSOCIATION.

The thirty-sixth annual meeting of this body was held in London, Ontario, on the 25th, 26th, 27th, and 28th of August, under the presidency of Dr. W. H. Moorhouse, of that city. According to a very able editorial article prepared for the September number of the *Montreal Medical Journal*, advance sheets of which have been very kindly furnished to us by that journal, the attendance was larger than at any previous meeting, except the one held in Montreal last year, but it is remarked that the attendance from other Provinces than Ontario was "lamentably small." "The profession in Montreal," our contemporary goes on to say, "has always been noted for its diffidence, but it could not be charged with self-glorification even if it had sent considerably more than four members to the London meeting." To be sure, London is rather remote from Montreal, but for all that one would have thought that more would go from the chief city of the Dominion to a meeting of such importance.

Another feature of the meeting deplored by our contemporary is one with which not a few of our own meetings have to contend—absenteeism on the

part of many whose names figure in the programme of papers. It seems that, out of forty-six persons who had undertaken to read papers, seventeen failed to put in an appearance—far too large a proportion unquestionably. True, the practice of medicine is a calling in the pursuit of which one is often compelled to forego journeys that had been fully determined upon, but seventeen unavoidable detentions among forty-six practitioners strike us as a trifle too numerous.

The matter of Dominion registration seems to be still vexing our Canadian brethren. We read that in his presidential address Dr. Moorhouse "recited the facts, how several Provinces had accepted its terms, how Ontario had allowed the matter to stand over on account of the Premier's 'unstable tenure of office and the very grave charges brought against some members of his cabinet,' and he urged the other Provinces to rise in their 'might and their right' to resist the 'selfish policy of Quebec' by endorsing an amendment permitting a majority of the Provinces to put the bill into operation." Anent this matter we find in our Montreal contemporary's editorial the following: "If we in Quebec think that a complete course in classics and philosophy be a necessary introduction to the study of medicine, even if we consider that ability to read the dog Latin of the fathers constitutes a classical education, and an understanding of the patristic speculations of the schoolmen be proof of the philosophical mind, it is as well to acknowledge at once that we are within our rights in holding those views, however absurd they may seem. We hasten to add that there are many in this Province, including the editors of this journal, to whom these views do seem as absurd as they appear to the profession in Ontario."

An important and altogether commendable move was made by the meeting when it invited the British Medical Association to meet in Toronto in 1905. The Montreal meeting of that association held a few years ago was an event highly calculated to bind closer together the profession of the United Kingdom and that of the Dominion, to say nothing of the many who were in attendance from the United States. We hope the invitation will be accepted. The body that gave it will hold its next annual meeting in Vancouver.

COLPORRHAPHY.

This paper is a forerunner to a later article which will appear as soon as Dr. George P. Müller, pathologist at the University of Pennsylvania and German Hospital, has completed his research and investigation, histologically and otherwise. For many years it has been my experience that the operations upon the vagina have been mostly, after a year or so, failures. The purpose for which the operations have been done, namely, the remaking of a sound perinæum and floor capable of assisting to keep the uterus in place, has been accomplished only for a time. Then the same bulging condition and relaxation that formerly existed gradually return. For several years my object has been to ascertain the cause and, if possible, to correct the errors. This I believe I have accomplished, and with the valuable assistance of Dr. Müller I hope to prove it.

The operation for anterior or posterior colporrhaphy is usually performed by "denuding the mucous surface," as most textbooks read. This, I believe, is the cause of poor results. The denuded surface has little power when united, and sooner or later gives until the relaxation is equal to that which formerly existed. If we cut through the centre wall of the vagina, we have a different condition confronting us. Then we have tissue of the same class opposed—thus, muscle to muscle, fascia to fascia, etc. We know that in the intestines and in the abdomen it is the fascia which holds the parts so firm after an operation, and here, we expect to prove, it is the same tissue which is the important one to unite. Therefore the operation is performed in such a manner as to unite the said fascia.

To obtain this result, the operation I have used is as follows: Pick up the posterior vaginal wall with the tenaculum forceps in three parts—namely in the centre high up and immediately behind the cervix uteri, and at each of the outer angles of the triangular piece of vaginal wall you expect to remove. Then with a knife make an incision at the upper point through the entire thickness of the vaginal wall. Quickly introduce two fingers into the cut and carry them forward to a line which would equal the base line of the triangle. Rapidly spread the two fingers apart until the two lower tenacula are reached, and you have elevated the exact piece of vaginal wall you desire to remove. It then is a simple matter to cut this out with

scissors or knife. Begin at the upper tenaculum, or apex of the triangle, cut to one lower one, thence to the other, and then back to the apex. This being done, each tissue is recognized and can be approximated.

The same principle can be applied in Hegar, Kelly, Tait, or Martin methods. The point to observe is to cut the entire thickness, then bring fascia to oppose fascia, muscle to muscle, and other tissue to oppose that of similar character. This method of colporrhaphy has given me uniform success, and the difference between this and other methods will be given in detail in the paper which Dr. Müller and I are preparing to follow this article. In it will be given the histology, results of operation by other methods and by this method, and a more explicit account of the operation performed as herein described, with the additional advantages as a preventive of enclosing diseased glands and devitalized tissues.

SWITHIN CHANDLER.

ANTISEPSIS IN CATARACT EXTRACTION.

Why does the routine preparation of an eye for extraction of cataract differ in India and in this country? The surgeons in India have a vast experience. Compare the 262 operations performed during one year at the largest eye and ear hospital in the United States by all the surgeons and their assistants in attendance there, or the 129 operations in a year at another well known hospital, with the 3,454 in twenty-three months by Mr. Henry Smith alone, or the record number of fifty-three in one day by Mr. Elliot, and no doubt will remain on this point. Unless the Indian surgeons fall into an unreasoning routine as the result of the enormous amount of work they perform, their opinions in regard to certain details must be of overwhelming weight if opposed to those of the less experienced western surgeons, provided that the conditions with which they have to deal are the same. Mr. Herbert precedes his operations with a copious irrigation of the eye with a solution of mercuric bichloride sufficiently strong to induce a rapid secretion of mucus from the conjunctiva, together with shedding of the superficial epithelium, and so to form flakes which can readily be washed away with whatever microorganisms are embedded in them. The quantity of the lotion to be used is determined by the condition of the conjunctiva in each case, and it is

acknowledged that if the irrigation is too copious the iris is apt to be irritated. Our custom is very different from this, and the reason why is evident if we compare the conditions in the two countries. Mr. Herbert states that in the hospital where he operates "there is no operating theatre; the operations are performed in a room just cleared of the daily crowd of out-patients. The windows of the room are widely open; this seems sufficient to render of no account the daily soiling of the floor and furniture. The patients themselves are far from clean and no extraordinary effort is made on admission to clean even their eyelids, which may never have known the application of soap." He also declares that, while a normal conjunctiva is the rule in Europe, it is the exception in India. In this country we have immaculate rooms set apart for operations, each patient must have a bath on entrance to the hospital, and there is no generally prevalent disease of the conjunctiva. We have excellent results after the extraction of cataract, even if we do not remove so many as the Indian surgeons, and it is difficult to convince a surgeon accustomed to between ninety and one hundred per cent. of success that his technique would be improved by the adoption as a routine procedure of an application which irritates the normal membranes. Unity in the routine preparation of an eye for operation is impossible until people of all nations have an equally healthy average condition of the conjunctiva and can be operated on under equally favorable conditions. But it is possible that the minute percentage of failure in this country may be still more reduced by the employment of such an energetic method of preparation on the eyes which present the pathological conditions of the conjunctiva so familiar to the Indian surgeon.

MATTHIAS LANCKTON FOSTER.

AN ASSOCIATION FOR THE ALLEVIATION OF TUBERCULOUS DISEASE.

Mrs. Rufus Phillips Williams, of North Cambridge, Mass., informs us that a new association for the alleviation of tuberculous disease and the education of the community hopes soon to begin active work in Cambridge. The constitution says: "This association shall be called the Tuberculosis Aid and Education Association," the object being "to cure at home if possible persons suffering with tuberculosis; to relieve with food, as far as possible, all needy tuberculous persons;

to educate the entire community in the care and prevention of this disease; to promote the establishment of hospitals for hopeless cases." A deep interest is being awakened in the community, and representative men and women are to be found on the board of managers. A trained nurse will care for such cases of the poor as need her attention, free of expense, giving instructions as to the disposition of sputum and the formation of healthful habits. Various committees will have charge of the distribution of food, of lectures, of sanitation, etc. The movement is intended to be largely educational, and for this reason there will be on file, open to the public, reports from other organizations working along similar lines, reprints from papers read by physicians before medical and other societies, and pamphlets descriptive of public and private sanatoria. The committee will be grateful to physicians and others who will give such publications. If possible, they would like three copies, one for the library, one for a special room devoted to advisory conferences, and one for private consultation by the board of managers. While it is not the intention of the association to become an advertising medium, the committee in charge of outlining the work feel so deeply the value of sanatorium treatment in the early stages of the disease that they wish to put themselves in touch with such institutions. They feel that such a collection of information will be invaluable to physicians in advising patients to try a climate peculiarly fitted to each case. With the booklet from a sanatorium it would be well to send a brief description of the shortest route of travel between Boston and the sanatorium, hotel, or boarding house at which tuberculous persons are received, and the price for board or treatment.

THE CUBAN EPIDEMIC "FAKE."

Last week one of the soberest of the New York newspapers treated its readers to a sensational account of an epidemic of unknown nature alleged to be ravaging Cuba, and at the same time the Philadelphia newspapers were "full of it." The newspapers themselves promptly retracted the accounts, as they might well have done on the authority of the Public Health and Marine Hospital Service, but we think it well to confirm the denial, lest it may not have come to the knowledge of some of our readers who read the original reports.

MUNICIPAL SANATORIA FOR CONSUMPTIVES.

Not by any means the least important item in the proceedings of the recent meeting of the Canadian Medical Association was Dr. Barrick's plea for the establishment of municipal sanatoria for consumptives. We hope that it may prove effective

News Items.

Society Meetings for the Coming Week:

MONDAY, September 14th.—New York Academy of Medicine (Section in General Surgery); New York Academy of Sciences (Section in Chemistry and Technology); New York Medico-historical Society (private); New York Ophthalmological Society (private); Gynecological Society of Boston; Burlington, Vt., Medical and Surgical Club; Norwalk, Conn., Medical Society (private); Medical Association of the Greater City of New York; Society of Medical Jurisprudence; German Medical Society of the City of New York.

TUESDAY, September 15th.—New York Academy of Medicine (Section in General Medicine); Buffalo Academy of Medicine (Section in Pathology); Ogdensburg Medical Association; Syracuse, N. Y., Academy of Medicine; Medical Society of the County of Kings, N. Y.; Baltimore Academy of Medicine.

WEDNESDAY, September 16th.—Woman's Medical Association (New York Academy of Medicine); Medico-legal Society, New York; Northwestern Medical and Surgical Society of New York (private); New Jersey Academy of Medicine (Newark); New York Society of Dermatology and Genitourinary Surgery (private); New York Academy of Medicine (Section in Genitourinary Diseases).

THURSDAY, September 17th.—New York Academy of Medicine; Brooklyn Surgical Society; New Bedford, Mass., Society for Medical Improvement (private); Medical Society of City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

FRIDAY, September 18th.—New York Academy of Medicine (Section in Orthopædic Surgery); Clinical Society of the New York Post-graduate Medical School and Hospital; Baltimore Clinical Society; Chicago Gynecological Society; Manhattan Medical and Surgical Society (private).

Change of Address.—Dr. Walter G. Frey, to 44 Ely Avenue, corner Mott Avenue, Long Island City, N. Y.

NEW YORK, CITY AND STATE.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of cases and deaths reported for the two weeks ending September 5, 1903:

		Week end'g Sept. 5.		Week end'g Aug. 29.	
DISEASES.	CASES.	DEATHS.	CASES.	DEATHS.	
Measles	78	5	105	3	
Diphtheria and Croup.....	238	32	214	27	
Scarlet fever.....	80	10	90	6	
Smallpox .....	..	..	0	0	
Chickenpox	15	..	13	..	
Tuberculosis	248	127	256	135	
Typhoid fever.....	129	23	136	16	
Cerebrospinal meningitis..	..	..	..	5	
Totals	797	197	...	...

Binghamton State Hospital.—In our issue of the 5th instant, we inadvertently published an item to the effect that John L. McKelway had been appointed superintendent of this institution; it should have read that John Irvine McKelway had received the appointment of junior assistant physician.

Bender Hygienic Laboratory.—R. M. Pearce, of Philadelphia, appointed head of this Albany institution, to succeed George Blumer, resigned, assumed charge of his new duties on the first instant. Charles K. Winne, of Mount Wilson, Md., will shortly become lecturer on clinical microscopy in Albany Medical College, and Dr. Stanton, of New York, instructor in histology.

St. Catherine's Hospital.—Frederick L. Flynn, connected with this institution for eighteen months, has resigned to open an office in the eastern district of Brooklyn. Louis Schaefer takes Dr. Flynn's place. Frank Jennings becomes house physician; Dr. Callahan, assistant house physician; Joseph E. Golding, ambulance surgeon; K. D. Wood, assistant physician, and Joseph Samenfild, externe. Dr. Flynn's retirement was signalized by a banquet, tendered by his fellow physicians, and as the hero of the occasion sat in the centre of a floral horseshoe, many toasts were drunk to the success of the new *débutant* in practice.

The Lying-in Hospital, on Second Avenue, between Seventeenth and Eighteenth Streets, during the month of August, had four hundred and thirty-four applicants for treatment, of whom one hundred and three were cared for in the wards. Eighty-seven children were born in the institution. In the outdoor department two hundred and eighty-eight applied for treatment in their homes, and two hundred and thirty-eight were confined. Nine hundred and forty visits were made. The Ladies' Auxiliary made eight hundred and fifty-one visits, distributing eight hundred and twenty-three garments, and supplying two hundred caretakers that the mothers might be relieved of their household duties. Cracks in the lignolith flooring of the hospital, caused by settling, have been repaired and covered with several coats of heavy yacht paint. Over fifty nurses are now receiving special instruction, besides students and graduate pupils.

PHILADELPHIA AND PENNSYLVANIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

		Week end'g Aug. 29.		Week end'g Sept. 5.	
DISEASES.	CASES.	DEATHS.	CASES.	DEATHS.	
Smallpox	12	4	10	2	
Diphtheria	51	13	55	10	
Scarlet fever.....	57	0	79	1	
Typhoid fever.....	133	15	104	7	
Consumption .....	..	52	..	43	
Cerebrospinal fever.....	..	1	0	0	

This table shows a decrease of fifteen in the total of cases of contagious diseases as compared with the preceding week.

Samaritan Hospital.—The new buildings of the Samaritan Hospital are rapidly nearing completion. Within the next two weeks they will be formally opened for the reception of patients.

Requested Rectification.—In our last edition we reported the return of Dr. Max J. Walter from Europe. Upon his request we rectify the name to Mr. Max J. Walter, superintendent of the Philadelphia Orthopædic Institute (Incorporated).

Philadelphia Pasteurized Milk Society.—Next to the decrease of excessive heat during the past summer, this society is largely to be credited with the comparatively few cases of fatal summer diarrhoea that have occurred in Philadelphia. The society is supported by voluntary contributions.

A Lucky Escape.—Dr. John L. Borsch, of this city, who fell two hundred feet over a precipice on Mt. Eiger, Switzerland, in a successful effort to rescue a fellow tourist, escaped serious injury as he landed in a huge snowdrift, and was hauled back by ropes held by his guides.

Filtration Inadequate.—Several Philadelphia physicians are contending, and correctly so, that the filtration of water on a large scale in this city cannot render it immune from bacterial infection.

Crusade Against Food Adulteration.—In addition to the prosecutions for the alleged adulteration of beer with salicylic acid, Philadelphia dealers are being proceeded against for selling impure molasses, and vinegar.

Death of the First Woman Physician of the United States.—Dr. Emily R. Robbins, who is said to have been the first medical practitioner in this country, died last week in Philadelphia at the advanced age of seventy-one years. She distinguished herself during the Civil War by her untiring energies in the treatment of such wounded soldiers as were brought to Philadelphia.

Medico-Chirurgical College.—The opening address of the coming session will be delivered by Professor George H. Meeker on September 28th at 8 p. m. There is every prospect of large classes in the departments of medicine, dentistry, and pharmacy. The improvements and reconstruction now under way in the hospital are rapidly progressing.

Charges that Beer is Adulterated.—Dr. B. H. Warren, State Dairy and Food Commissioner, has issued warrants for the arrest of a number of brewers and tradesmen who sell adulterated goods. The doctor asserts that the beer has been adulterated with salicylic acid and is very injurious. The hearing has been set for September 2nd.

The Frankford Hospital for August records five hundred and thirty-two cases treated in the surgical dispensary, one hundred and seventy-one medical, five in the gynæcological, fifty-eight eye, twenty-two skin, fourteen accident, sixteen admitted to the hospital, nine hundred and fifty-seven visits of patients, two hundred and sixty-eight cured.

Decrease in Mortality.—There was a decrease both in the mortality from typhoid fever and in the number of new cases reported during the week ending September 5th. There were one hundred and four new cases returned, a falling off of twenty-nine. The deaths were seven as against fifteen for the previous week. The deaths from all causes during the week numbered three hundred and fifty-four, a decrease of seventy-two.

Work of the Dairy and Food Division.—The month of August was a record breaker for the dairy and food division. Fines for the sale of various illegal articles of food and drink amounting to \$6,000 have been paid to the department agents; about four hundred dollars has also been collected by Dr. Martin for oleomargarine licenses. Dr. Warren has ordered sixty-seven prosecutions in various sections of the State, especially in western Pennsylvania, for the alleged sale of various articles of food, and about fifty more suits will be ordered as soon as the agents make the necessary reports.

St. Joseph's New Head Nurse.—Sister Raphael, for many years prominent as the head of the Sisters of Charity Sanitarium at San Jose, Cal., and the Hôtel Dieu, a hospital at New Orleans and for some time in charge of the Sisters' Red Cross Department during the Spanish-American war, has begun her duties as the head of St. Joseph's Hospital. She succeeds Sister Blanche, who filled the position for six months. Sister Raphael was appointed to her present important position by the Mother Superior of the Sisters of Charity in Emmetsburg, Md. For some time past she has been occupying the position of sister assistant there.

St. Joseph's Hospital Report for August shows an increasing amount of work in that institution. There were one hundred and eleven patients who remained from July, and one hundred and eighty-nine cases admitted in the gynæcological, surgical, and medical clinics, making a total number of three hundred patients treated. Of this number one hundred and ninety-two were discharged and one hundred and eight patients remained in the hospital on September 1st. There were 1,980 cases treated in the various clinics, and three hundred and five by resident physicians, making 2,285 during the same period. There were thirty-two ambulance calls, sixty-two patrol cases, and one hundred and sixty-six accident cases.

Death of Jesse C. Pfaffer.—On September 6th Jesse C. Pfaffer, chief of the Orthopædic Department of the Medico-Chirurgical Hospital, died in St. Joseph's Hospital, of typhoid fever, after an illness of ten days. Dr. Pfaffer was born on January 16, 1881, at Mount Carmel, Pa., and graduated from the Medico-Chirurgical College in 1902. A year later he was appointed resident physician at that institution, and subsequently Professor J. P. Mann made him chief of the Orthopædic Department. A pathetic phase of the death of the physician is that he was engaged to be married shortly. The funeral will take place on Thursday at Slatington, where Dr. Pfaffer's father and mother live.

Philadelphia Almshouse and Hospital.—The past year has shown considerable improvement in the structure and management of this institution. There are now separate buildings for the treatment of diseases of children and for the care of foundlings, for venereal diseases and for the maternity service. The formerly overcrowded surgical wards have been made more capacious. There are now three buildings in process of construction composed of steel and glass, to be used exclusively by the consumptives. The superintendent, Robert H. Smith, is barring all cases of acute alcoholism, which as in all great cities have made this institution a rendezvous for the purpose of sleeping off debauches. This restriction, however, does not refer to those cases of alcoholism affected with an intercurrent disease. Most of the wards have been renovated, and the plumbing has been placed in a more sanitary condition. There are now almost 4,000 inhabitants in the institution, the last census showing 1,055 in the Hospital, 1,665 in the Insane Department, seven hundred and fifty-four men and four hundred and fourteen women in the Almshouse, and seventy children.

Benzoic Acid to Preserve Beer.—It is stated that analyses by the State chemists of a large number of samples of beer taken recently in Philadelphia, Pittsburgh, and other large cities of the State, show that much of it contains benzoic acid. Four of the samples, it is reported by the chemists, are preserved with salicylic acid. One of the samples was procured in Wilkesbarre, the other three samples in Philadelphia.

Jefferson Medical College.—The opening address for the coming session will be delivered by the Honorable William Potter, President of the board of trustees, on September 24th, at noon. In spite of the fact that the college has advanced its fees as well as entrance requirements, the freshman class is about as large as it was last year. Rapid strides are being made in the erection of the new hospital building.

A New Medical Society.—The committee of arrangements for the meeting of the physicians of the Cumberland Valley, between Harrisburg and Hagerstown, at Mont Alto Park, on Tuesday, September 8th, to organize the Cumberland Valley Medical Society, has announced the following programme: Open Air Treatment for Tuberculosis, by J. S. Rothrock, State Forestry Commissioner of West Chester; Organization of the Medical Profession, by V. M. Reichard, of Fairplay, Md.; Professional Sociability, by W. T. Phillipy, of Carlisle, Pa.; Hæmorrhage of Typhoid, by T. H. Weagley, of Marion, Pa. In the afternoon the physicians will visit the White Pine Sanitarium for Consumptives, near Mont Alto.

Report of Illness in Germantown Denied.—The report that diphtheria and typhoid fever are raging in Germantown has stirred up a hornet's nest. A leading physician said: Statistics will show that this is one of the healthiest parts of the city and comparatively free from contagious diseases. As to the complaint that typhoid fever has been caused by stagnant water in a public drinking fountain on Germantown Avenue near Coulter Street, it is stated that an inspection will show that such a thing is impossible. The water cannot become stagnant in the trough, as it is running continually, and the only way in which disease can be communicated is by the drinking cup which is used by the general public. The public takes this risk at any drinking fountain of a similar character throughout the city. No one need have any fear to come to Germantown on account of disease. The Business Men's Association will not hold any meeting until the first week in October, at which time the committee will make a report on the matter and some action may possibly be taken.

The milk supply of this city is receiving the attention of the physicians connected with the bureau of health. Samples of milk brought in are analyzed, and every effort made to secure as pure an article as can be had. Some of the analyses have shown that the milk was infected with pus from the cows. In such cases the dairyman is held responsible, but the dealer is relieved of all responsibility. The dairyman is notified to quarantine the cow until it is well, and if he fails to do so he is prosecuted.

Typhoid Fever.—Cases are causing the bureau of health considerable anxiety. During the week ending August 29th there was an increase of fifteen in the number of new cases. There were one hundred and thirty-three new cases reported by physicians and fifteen deaths. There was a decrease in the number of smallpox cases, only twelve being reported as compared with twenty the previous week. Dr. A. C. Abbott, chief of the health bureau, is determined to find the centre of typhoid fever. The greatest number of typhoid fever cases reported were from wards supplied with filtered water. This fact induced the health authorities to adopt stringent measures to ascertain the cause. In discussing the great number of cases of typhoid fever in the filtered water districts and the plans adopted to discover the source of contagion, Dr. Abbott says: "I do not believe that the filtered water was responsible for the typhoid fever. Many people living in the district supplied with filtered water drink other water and imbibe typhoid germs and are taken down with the disease. People who are very careful to drink nothing but boiled water at home are often very careless what they drink elsewhere. The department proposes to find the centre of contagion, and, with this purpose in view, has been making a careful investigation of each case of typhoid fever. The first thing determined is if the patient drinks boiled water at home. That is the only preventative against typhoid. When the question is answered, the place of employment of the patient is found, and other data to show what was eaten and when the patient drank water away from home. A careful record is kept of each case, and we hope to get at the exact causes for typhoid fever in the city."

GENERAL.

Georgetown, Ky., College.—Dr. J. J. Taylor was elected President of this institution on the fourth instant.

The Valley Falls, R. I., Contagion Hospital was closed on Sunday, August 30th, the last victim of the recent smallpox outbreak having been discharged, cured.

The Children's Free Hospital, at 219 Tenth Street, Milwaukee, Wis., is to be remodeled at a cost of \$8,000 by the association having charge of the institution.

Hospital College of Medicine, Louisville, Ky.—The institution of this name is undergoing extensive improvements, at an estimated cost of \$5,000. The interior is being remodeled and a bay window is to be set in the west wall of the building.

Harvard's New Medical School is to be erected near Huntington Avenue, between Boston and Brookline. The structures, five in number, are to cost in the neighborhood of \$2,088,000. They are described as follows: Administration building, five stories in height, to cost \$535,000; physiological building, \$421,000; bacteriology and pathology, \$390,000; histology and anatomy, \$396,000; pharmacology and hygiene, \$346,000. The buildings are to be of white marble and fire-proof.

Vallejo's Health Officer.—Dr. Charles E. Turner has been appointed secretary of the board of health of Vallejo, Cal., and under the charter is *ipso facto* health officer of the city. Dr. Turner is also local surgeon for the Southern Pacific Railroad Company.

The Naval Academy Hospital, at Annapolis, Md., is being enlarged by the addition of a frame structure, two stories in height, and designed to contain twelve rooms. The increased number of midshipmen expected this year compels the enlargement.

Georgia State Board of Health.—H. F. Harris, professor of bacteriology in the Atlanta College of Physicians and Surgeons, and city bacteriologist and chemist, will, it is said, be elected secretary of the Georgia State board of health, at a salary of \$2,000 per annum.

The Frances E. Willard Temperance Organization is to erect a \$75,000 hospital in Chicago. It is stated that alcohol will not be used in the institution in any form. One of the wards is to be dedicated to the Loyal Temperance Legion, a society of children.

Augustana Hospital.—This institution, the addition to which is to cost \$150,000, is undergoing repairs and alterations at Lincoln and Cleveland Avenues, Cleveland, O. The wing will be of granite and brick, and the ventilation, etc., according to the most modern ideas.

School Inspectors in Providence, R. I.—The following physicians have been appointed school medical inspectors in Providence, R. I.: Messrs. Blake, Normand, Gilbert, Leonard, O'Connor, Butler, Lanoie, and Bergeron. Each will receive a daily stipend of ten dollars.

The Emergency Hospital, Washington, D. C., has engaged Dr. Charles S. White, of that city, as resident physician, and Miss Irene B. Lenig remains as matron. The change is said to have been recommended by direction of the board of charities which investigated the institution by direction of the District commissioners.

Central City Dispensary, St. Louis, Mo.—A new operating room has recently been established in this institution, and two nurses have been appointed, to be in constant attendance, alternately. They will be supplied by the training schools. The receiving room has been freshly painted and freshened up.

Tainted Ice Cream in Colorado Springs.—Over fifty cases of poisoning due to ice cream have occurred in Colorado Springs. The toxic agent is said to be formaldehyde. All the ice cream on hand has been condemned by the health department, and an order issued that all apparatus used in its manufacture shall be sterilized.

Proposed Change in Grady Hospital, Atlanta, Ga.—The hospital investigating committee of the Atlanta city council are considering the advisability of abolishing the pay wards of this institution and making the hospital a solely charitable one. New quarters for the nurses will probably be provided.

The Tri-State Medical Association of Georgia, Alabama, and Tennessee, will meet in Atlanta, Ga., on October 13th, 14th, and 15th at the Kimball House. It is thought that over one hundred and fifty physicians will be in attendance. Michael Hoke, of Atlanta, is President, and Willis S. Westmoreland chairman of the entertainment committee.

The Ohio Society for the Prevention of Tuberculosis, organized in 1901, with a membership of about three hundred, has reported in favor of a State sanitarium for the care of the afflicted, and will petition the next legislature to take steps to carry out its recommendation. Tuberculosis has hitherto claimed some six thousand victims yearly in Ohio.

The Richmond Academy of Medicine and Surgery held a regular meeting on Tuesday, September 8th, at 8.30 p. m., at the T. P. A. Building, Third and Main Streets. The subject for discussion was Puerperal Sepsis, by John F. Winn. Discussion followed by Daniel J. Coleman, and J. M. Winfree. W. Brownley Foster, assistant secretary.

Boston Floating Hospital.—We regret to learn that this admirable charity, which closes on the fifteenth instant, is some five thousand dollars in arrears of its expenses. Notwithstanding the work done by many churches, institutions, and individuals on its belief, public announcement has been made of the deficit and an appeal made for the required amount. It will be necessary to have a sister boat next year. Dr. Flexner has been appointed special bacteriologist to investigate the cholera morbus serum. Miss Ethel F. Vinal, of Newton, Mass., has volunteered this week for the kindergarten department.

The Pacific Coast Association of Railway Surgeons was organized on August 25th with a membership estimated at three hundred, at the Southern Pacific General Hospital. The following officers were elected: President, W. B. Coffey, of San Francisco, hospital department of the Southern Pacific; vice-president, M. Morrison, of Los Angeles, chief surgeon of the Santa Fé; second vice-president, Dr. McKenzie, of Portland, Oregon Railway and Transportation Company; treasurer, F. K. Ainsworth, of San Francisco, chief surgeon of the Southern Pacific; secretary, James Dunn, of Oakland, Southern Pacific Hospital Department.

Berkshire Medical Society.—The summer meeting of the Berkshire District Medical Society occurred on Friday, August 28th. The session was held at Pontoosuc Lake. At 2 o'clock a delightful luncheon was served in the cottage of Dr. Noyes. Mrs. Carson catered, and covers were laid for 22. The business session of the society followed. M. M. Brown, of Adams, presided. The principal number was the address by George C. Francis, of Worcester, the President of the Massachusetts Medical Society. There were no formal papers or discussions, the affair being more in the nature of a friendly smoketalk. A cruise around the lake on the steamer *Lafayette* was one of the pleasant features of the afternoon.

Fraternal Association of Western Railroad Surgeons.—The railroad surgeons of the Pacific Coast met on Tuesday, August 25th, and organized a fraternal society for mutual benefit, financially and mentally. Officers were elected as follows: President, Walter B. Coffey; vice-president, M. Morrison; second vice-president, J. McKendie; secretary, James T. Dunn; and treasurer, F. K. Ainsworth. Dr. Coffey made an admirable speech of acceptance, and several valuable papers were read.

Law Regulating the Practice of Medicine in the State of Texas.—The following medical law, which became effective on July 9, 1901, was the cause of a vigorous fight on the part of the physicians during the past session of the Texas legislature. We give only the gist of the title. The usual three boards are appointed by the Governor from a list of names furnished by the three medical societies, of practitioners of not less than five years' experience. They must also be free from alcohol, morphine, cocaine, or other drug addiction. Candidates belonging to "schools" not recognized by the title, may select any one of the three boards by which he prefers to be examined and must abide by its decision, which is not reversible by the other two.

Wyoming State Medical Society.—The sixth annual meeting of this organization was held in Rock Springs on August 31st, the sessions being held in Elks' Hall. Following is the programme: Address of welcome, Mayor of Rock Springs; response, J. L. Weeks, of Evanston; president's address, Importance of Examining Eyes and Ears of School Children, by Samuel B. Miller, of Laramie; Trachoma, by George L. Strader, of Cheyenne; Injury to Elbow Joint, with report of cases, by George P. Johnston, of Cheyenne; Skin Grafting, by A. B. Hamilton, of Laramie; Scoliosis, by Dr. W. A. Wyman, of Cheyenne. Following the programme a surgical clinic took place at the State general hospital, R. Harvey Reed, of Rock Springs, operating.

Trained Nurses for the Navy.—The third class of hospital apprentices to be graduated from the naval hospital at Norfolk, Va., received their diplomas on the second instant. The class of thirty-five were highly congratulated on their efficiency by Surgeon-General Rixley, who presented the diplomas. Following are the names of the successful applicants: E. B. Andrews, H. D. Balcom, first class; E. B. Barkley, H. B. Beard, C. Calvin, C. H. Clay, R. W. Dickerson, L. S. Dolson, first class; W. H. Ehrich, I. Firnberg, C. B. Farran, M. P. Griffin, W. J. Heinzl, first class; C. B. Hart, J. Holden, J. R. Kirby, T. E. Kent, E. J. Koehl, first class; A. C. League, first class; A. R. Lambke, R. L. Lusk, H. A. Listman, A. Navarro, J. W. Sands, W. P. Sieger, B. H. Smith, C. R. Steen, J. B. Smith, F. Schmid, R. B. Swartwout, first class; R. A. Verdier, first class; A. M. Vaughan, E. E. Weaver, first class; T. B. Weaver, M. R. Whitmore, first class.

Fourth of July Tetanus.—Statistics collected by the *Journal of the American Medical Association* show that the number of Fourth of July accidents

is greater and their results more serious than is generally understood. The highest number given by any newspaper record is about 217, while the *Journal* figures—accurately verified—exhibit the deaths since last Fourth as 406 from a total of 423 cases. Besides these deaths there were 10 persons made blind, 75 who lost one eye and 3,898 other serious injuries. Shown by States, the greater number of accidents was thus distributed: Pennsylvania, 82; Ohio, 67; Illinois, 49; New York, 36; Missouri, 29; Michigan, 29; Massachusetts, 16; Minnesota, 15; Iowa, 14; Indiana, 11; Kansas, 11; Wisconsin, 10; New Jersey, 8. The Southern States are quite free from deaths of this sort, as the blank cartridge plays a minor part in the celebration there. Kentucky has 4, West Virginia 3, and the others do not appear in the list at all. Also most of the Northwestern States are free from mortality so caused. Examining the causes of these accidents, the *Journal* finds that nearly all are due to "the murderous toy pistol"—the cheap affair made to shoot 22 calibre blank cartridges. These cartridges and the firecrackers both offer large opportunity for contamination in their construction. An interesting fact is that July is the season when tetanus, aside from "Fourth" accidents, is most prevalent. For the prevention of such wholesale injury, the *Journal* emphasizes the danger of inadequate treatment of the wounds and advises prohibition of the sale of blank cartridges and cheap toy pistols.

American Electro-Therapeutic Association.—The thirteenth annual convention will be held at the Hotel Windsor, Atlantic City, N. J., on September 22, 23, and 24, 1903. The following papers will be read: Electrotherapy as a Specialty, by Alfred William Bayliss, of Buffalo, N. Y.; Currents of High Frequency, Apparatus, and Therapeutic Uses, by Francis Goodwin DuBose, of Selma, Ala.; The Effects of the Secondary Static Currents in Removing Albumin and Casts from the Urine, by Boardman Reed, of Philadelphia, Pa.; Some Principles upon which is Based the Use of Electricity in Nervous Diseases, by Alfonso David Rockwell, of New York, N. Y.; The Use of Electricity in the Treatment of Diseases of the Heart, by Sigismund Cohn, of New York, N. Y.; Electricity in the Treatment of Diseases of the Stomach, by Harvey Hamilton Roberts, of Lexington, Ky.; A Plea for Electro-Therapeutics Proper, by William James Herdman, of Ann Arbor, Mich.; A Plea for an Accurate and Scientific Method of Röntgen Ray Treatment, by Mihran Krikor Kassabian, of Philadelphia, Penn.; Exophthalmic Goitre and its Rational Treatment with exhibition of the Broom Electrode, by Francis Besant Bishop, of Washington, D. C.; Some Therapeutic Indications for the Use of the Radiant Light Bath, by Thomas Davidson Crothers, of Hartford, Conn.; Some New Points in the Treatment of Tuberculosis, by Wolff Freudenthal, of New York, N. Y.; Electro-Therapeutic Gleanings, by Jefferson Demetrius Gibson, of Birmingham, Ala.; A Case of Asthma with Fibroids and Pelvic Adhesions, cured by Galvanism, by Charles Augustine Covell, of New York, N. Y.; Clarence Edward Skinner, M. D., LL. D., Secretary, New Haven, Conn.

Pith of Current Literature.

BRITISH MEDICAL JOURNAL.

August 22, 1903.

(Seventy-first Annual Meeting of the British Medical Association. Section of Navy, Army, and Ambulance).

1. The Water Supply for Landing Parties and Naval Brigades, By J. F. HALL.
2. A Surgeon's Notes with the Naval Brigade, China, By L. THOMAS.
3. Some Notes on a Mounted Bearer Company, By H. HATHAWAY.
4. Poverty of Attraction for Men to Become Stretcher Bearers and the Consequent Inefficiency of that Section, By G. A. STEPHENS.
5. Training of Volunteer Bearers and the Position of Regimental Medical Officers, By P. B. GILES.
6. Suggestions Regarding the Personnel, Equipment, and Training of Medical Units Attached to Volunteer Infantry Brigades, By W. SHEEN.
7. Remarks on the Military Medical Services.

1. **Water Supply.**—Hall concludes that under active military service conditions boiling the water used for drinking purposes is the best method to get it pure and free from typhoid and cholera germs. If this cannot be done, the Berkefeld filter should be used; but its candle must be sterilized once a day. The chemical methods are practically useless, as for the most part they cannot destroy active bacilli, and are too complicated for the men to understand and carry out thoroughly.

LANCET.

August 22, 1903.

1. Sciatica: An Inquiry Into Its Real Nature and Rational Treatment Founded on the Observation of Upwards of 400 Cases, By W. BRUCE.
2. The Significance of Pain and Tenderness in Cases of Inflammation of the Appendix, By C. W. M. MOULLIN.
3. The So-called Stokes-Adams Disease (Slow Pulse with Syncopal Attacks, etc.), By W. OSLER.
4. Intestinal Anastomosis for Prolapsed Small Intestine, By R. W. MURRAY.
5. A Case of Supræmia Due to Pyorrhæa Alveolaris, Simulating Typhoid Fever, By J. W. CARR, and E. W. ROUGHTON.
6. Note on the Treatment of Chorea by Aspirin, By R. T. WILLIAMSON.
7. Amputation of the Leg Under Hypnotism, By F. G. ALDRICH.
8. The Successful Treatment of Thoracic Aneurysms by Large Doses of Iodide of Potassium, By W. R. KINGDON.
9. Bradycardia in Health, By R. J. BLACKHAM.

1. **Sciatica.**—Bruce has observed and tabulated 418 cases of sciatica and has come to the conclusion that it is an affection of the hip joint, and not a genuine neuritis, as is held by Gowers and Osler. The absolute necessity for rest and the bad effects of exercise and massage first suggested to him that the hip joint might be the seat of the trouble. In the 418 cases of sciatica observed by him the proportion of males to females

was as 100 to 90. The greatest number of cases occurred between fifty and fifty-nine years of age, the disease being as frequent among the poor as among the rich. In 125 cases specially examined with reference to the hip joint there was evidence of tenderness on pressure over the capsule in 55 per cent. In 39 per cent. there was pain on flexion, in 41 per cent. pain on rotation inwards, and in 38 per cent. on rotation outwards. In only a small number was there found manifest distention of the capsule or evidence of heat over the joint. In 52 per cent. there was evidence of gout or rheumatism in other joints. From these data it may be fairly said that sciatica is some affection of the hip joint and not neuritis of the sciatic nerve, that it is connected with the gouty or rheumatic diathesis, and also with so-called monoarticular rheumatic arthritis of the hip. The flattening of the glutei and obliteration of the folds of the nates which were present in 39 and 30 per cent. of the cases, respectively, support this contention. The most important fact is that in almost every case of sciatica there is present lameness of the affected limb. The author further believes that sciatica and rheumatoid arthritis of the hip joint are one and the same disease, sciatica when unrelieved terminating in rheumatoid arthritis, and femoral ankylosis. The main point in the treatment is, of course, rest for the articulation. Little more in the way of local treatment is required, but anti-gout and anti-rheumatic remedies should be given internally.

2. **Pain in Appendicitis.**—Moullin states that in acute inflammation of the appendix (1) absence of pain is no indication that the most serious mischief is not going on; (2) the initial pain of acute inflammation of the appendix, which is so commonly referred to the umbilicus, is due to the peristaltic action of the cæcum or of the appendix dragging upon the attachment of the peritonæum to the abdominal wall; (3) the cessation of this umbilical pain without improvement in the other symptoms is due to cessation of the peristalsis caused by the inflammation having spread to the muscular coats of the bowel; (4) the development of local pain, which usually precedes the cessation of the umbilical pain, means that the inflammation has spread from the appendix to the parietal peritonæum or to the postperitoneal cellular tissue. Severe pain is of serious import, as it implies either wide extent or great severity of inflammation. The presence of deep tenderness indicates that the inflammation has spread to the parietal peritonæum; its absence, when other well-marked symptoms of inflammation of the appendix are present, is of very grave import as indicating that the sense of feeling pain has been lost, owing to extreme virulency of the toxins. In most cases of acute appendicitis there is a marked degree of cutaneous hyperæsthesia, evidence that the spinal centres are receiving from some point supplied by its nerves, stimuli of unwonted intensity. Such stimuli may come from the muscles or the abdominal viscera, but not from the peritonæum. Sudden cessation of the hyperæsthesia, without corresponding general improvement, suggests that the appendix has become gangrenous.

3. Stokes-Adams Disease.—Osler defines Stokes-Adams disease as a clinical condition characterized by (1) a profound disturbance in the automatic mechanism of the heart—true bradycardia, hemisystole, and allorhythmia; (2) nervous symptoms—vertigo, syncope, etc.; and (3) secondary symptoms—Cheyne-Stokes breathing, angina pectoris, etc.

The post-mortem lesions are inconstant. The condition was first described by Adams in 1827, and more fully some years later by Stokes. A slow pulse is met with under several conditions, as follows: (1) Physiological—it is stated to be more common in dark races, and is a normal occurrence in old age. (2) Neurotic; (a) Organic disease of the brain, cord, or nerves. (b) Functional, as in melancholia, hypochondriasis, and neurasthenia. (3) Toxic: (a) In organic poisons such as lead; (b) bacterial poisons, as in typhoid fever; (c) vegetable poisons, such as digitalis; and (d) metabolic poisons, as in uræmia, jaundice, etc. (4) Cardiac and cardiovascular lesions. A large majority of the cases of bradycardia come under this latter head; so that Stokes-Adams disease is really a syndrome, or symptom-complex, and not a distinct disease. The cases may be arranged in three classes:

1. Post-febrile group. Following, more rarely in the course of, an acute infection, such as typhoid fever, diphtheria, etc.

2. Neurotic group. Either with coarse lesions of the nervous system (pressure from injury or tumor), or without recognizable lesions.

3. Arteriosclerotic group. With obvious changes in the circulatory symptoms. In this group occurs the great majority of cases. The author reports a series of twelve cases: of these five were very severe and acute, four were senile cases, two were mild cases in young adults, and one followed a streptococcus infection. All the patients were men. The severe cases were in the presenile stage and presented well-marked cardiovascular lesions. Among the various cardiac symptoms described, two are of interest, "heart-block" or independent auricular systole without corresponding ventricular contractions, the jugular pulsations being double the cardiac; and cardiac arrest, the heart ceasing to beat for as long as thirty five seconds, the patient recovering from the attack. The commonest nervous features are vertigo, syncope, pseudo-apoplexy, and epileptic seizures. In all cases the prognosis is bad, yet recovery may take place in young persons. The disease may last for many years. Death takes place suddenly. Treatment is symptomatic, though the iodides may do good in a few cases.

5. Sapræmia Simulating Typhoid Fever.—Carr and Roughton report the case of a woman, aged twenty-nine years, who for thirty-seven days had a daily marked rise of temperature. It was intermittent from the first, rising every day to 103° or 104° F. and falling again to normal. For a week before her illness she had noticed that her gums bled easily. The case was at first thought to be typhoid fever, especially as the Widal reaction (1 to 30) was positive on the tenth day. As there was no cessation of the fever after a month's time, a careful examination of the gums was made, and pus

was found in the sockets of several of the teeth. Two were extracted and appropriate treatment instituted; within two days the temperature was normal and remained so, the patient making a rapid recovery. There was no enlargement of the spleen nor any rose rash.

8. Potassium Iodide in Aneurysm.—Kingdon reports three cases of thoracic aneurysm treated by large doses of potassium iodide with excellent results. In two cases there was apparent recovery with disappearance of the pulsating tumor and the bruit. The third case was so far advanced that external hæmorrhage had taken place from the anterior wall of the aneurysm; yet on eighty grains of potassium iodide three times a day marked improvement took place, the patient being enabled to return to business and to lead a quiet life. The author thinks that failure in the treatment of aneurysm with potassium iodide often results from the fact that the dose is too small. No result is obtained in bad cases until the dose is over sixty grains.

9. Bradycardia.—Blackham reports the case of a soldier, over forty years of age, and of exceptionally fine physique. He was a good athlete and lived carefully and abstemiously, and came to the physician complaining of transient precordial pain. On examination he was found to be physically sound in every respect, except that his pulse was only forty-five to the minute. On exertion it rose to fifty-five. The case seemed to be one of purely physiological bradycardia.

VIRCHOW'S ARCHIV.

July 1, 1903.

1. Osteogenesis Imperfecta, By F. MICHEL.
2. Significance of Blood Cells in Coagulation and Inflammation in Certain Arthropoda. By LEO LOEB.
3. Anatomical Examinations in Incipient Prostatic Hypertrophy, By ALFRED ROTHCHILD.
4. Adenomyoma of the Pylorus, By ERNST MAGNES-ALSLEBEN.
5. Three Remarkable Tumors in and About the Stomach, By FELIX MIODOWSKI.
6. Changes in the Pupil After Death, By PLACZEK.

1. Osteogenesis Imperfecta.—Michel defines the process as a fætal disease, in which there is a general failure of skeletal development despite the normal condition of the preliminary processes in the cartilage. On account of the osseous condition, many spontaneous fractures occur which usually heal. The ætiology of the disease is not yet clear. Michel describes a case in a stillborn fœtus carried to term. The extremities were very brittle and very short. The fractures were found principally in the ribs which were very thin, at the diaphyses of the long bones, in the vertebræ and in the lower jaw. The author thinks the fractures occurred through contact with the uterine wall or through muscular contraction.

3. Prostatic Hypertrophy.—Rothschild believes that the connective tissue proliferation which results in hypertrophy of the prostate is due to inflammatory processes. In ninety per cent. of the

cases examined, evidences of inflammation were found, the age of the patients varying from thirty-four to fifty-two years. Anatomically, the author thinks, the condition should therefore not be regarded as one dependent upon old age.

5. Remarkable Tumors of the Stomach.—Miodowski describes three unusual growths in and about the stomach. The first was myoma from which the patient had a fatal hæmorrhage. A hysterectomy had been performed a year previous for myoma of the uterus. The second case was one of gastric carcinoma with metastases along the entire intestinal tract; submucous deposits were found in both the large and small intestines. The last case was one of a large sarcoma of the omentum, which had originated in the subserous tissue of the peritonæum behind the stomach.

6. Post-mortem Pupillary Changes.—Placzek says that the pupils of men and animals change after death in a certain definite manner which he calls "pupillary rigidity" (*Pupillenstarre*). The action of meiotics and mydriatics—with the exception of suprarenal extract—is without effect upon the pupil after death, no matter how strongly it may act during life. Suprarenal extract acts after death as a mydriatic, it delays the rigidity of the pupil decidedly and inhibits its intensity. The post-mortem rigidity of the pupil is purely a muscular process.

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT

July 30, 1903

1. The Treatment of Ankylostomiasis, By J. NAGEL.
2. The Diagnosis of Gastric Cancer, By H. SALOMON.
3. Thrombosis and Embolism in Acute Perityphlitis, By MIDDELDORFF.
4. Contribution to the Pathology of Burns of the Skin, By G. SCAGLIOSI.
5. Krönig's Sign in Apical Tuberculosis and the Percussion Note of the Vertebral Column, By B. ALEXANDER.
6. Curative Action of Strychnine in Polyuria and Diabetes Insipidus, By L. FEILCHENFELD.

2. Diagnosis of Gastric Cancer.—Salomon says that in cases of cancer of the stomach, if the organ is washed out with physiological salt solution, after a previous lavage, the fluid obtained is greater in its nitrogen contents than that of other chronic gastric diseases, and that it is richer in proteids giving with Esbach's reagent a rapid, intense and flocculent cloudiness. The author explains the latter as arising from an exudation of serum on the carcinomatous ulcer which he admits, however, might also take place in a chronic gastritis.

3. Thrombosis and Embolism in Acute Perityphlitis.—Middeldorff narrates three cases of acute perityphlitis, in one of which a thrombosis of the femoral vein was seen, and in the other two pulmonary lesions, once pneumonia, once pleurisy, both of which he regarded as embolic in origin. The first case resulted in gangrene with recovery after amputation.

4. Pathology of Burns of the Skin.—Scagliosi reports the results of his experimental work on rabbits. He regards death following burns as due to

the total of the various well-known factors. The changes in the nervous system found after burns are a destruction of Nissl's cellbodies and peripheral neuritis. The author attributes these changes are due to the reflex over-excitation of the central nervous system and to the depreciated nourishment offered by the altered blood, and that the nerve cells thus become more susceptible to the toxins circulating in the blood. An additional source of toxins is found in the deposit of bacteria in the burned tissues, and other sources of fatal outcome are to be seen in the disturbed functions of the liver and kidneys.

6. Curative Action of Strychnine in Polyuria.—Feilchenfeld reports two cases, one of polyuria, one of diabetes insipidus, in both of which the amount of urine became diminished while the specific gravity remained the same, after the subcutaneous use of strychnine. The author attributes the result to the action of the drug upon the nervous system.

WIENER KLINISCHE WOCHENSCHRIFT

July 30, 1903

1. Extirpation of the Thymus Gland, By K. BASCH.
2. Ætiology of Sea Sickness, By E. PFLANZ.
3. Ehrlich's Diazoreaction for Differential Diagnosis, By O. PELZL.
4. Antitoxine Treatment of Tetanus, By A. HOLUB.

2. Sea Sickness.—Pflanz made examinations on blood pressure and the fulness of blood in the fingers with instruments of precision, and found a constant law of relation between them. The results showed that the motion of the ship produced a synchronous change in blood pressure in different parts of the body, an alternating hyperæmia and anæmia. In parts of the body where the amount of blood was temporarily increased, there was a simultaneous increase in blood pressure. The author theorizes as to the cause of seasickness from his observations that the constant change in blood pressure and in fulness of the blood vessels produces an irritation in the brain, which, when it passes the stage at which it can be borne, evokes the characteristic symptoms of the condition.

3. The Diazoreaction.—Pelzl narrates the results of over 500 examinations. He found the diazoreaction positive in many cases of typhoid fever between the first and the third weeks; in cases of measles before the eruption and during the beginning of the eruption; in cases of scarlet fever and diphtheria, in advanced tuberculosis of the lungs and of the serous membranes and in cases of septicæmia. The author concludes that the diazoreaction is therefore to be found in cases in which streptococci are circulating in the blood and where overwhelming presence is indicated by septic fever. It may serve as an indicator when to use antistreptococcal antitoxines when these have reached a higher and more perfect state of development.

4. Antitoxine Treatment of Tetanus.—Holub reports a case of a woman forty-one years of age who died of tetanus despite repeated subdural injections of antitoxine. The cerebrospinal fluid in-

jected into a mouse had negative results, while in a previous case of the author the same procedure was fatal to the animal. A splinter of wood taken from the patient's finger post mortem was placed in bouillon a small quantity of which evoked tetanus in a mouse.

ZENTRALBLATT FUER INNERE MEDIZIN.

August 1, 1903.

1. A Case of Diabetes Insipidus with Ependymitis Diffusa on the Floor of the Fourth Ventricle,

By KARL PICHLER.

1. **Diabetes Insipidus.**—Pichler reports the case of a man of fifty-six years of age who presented during life the symptoms of a diabetes insipidus with, at times, a severe polyuria. At the autopsy, a chronic diffuse inflammation of the ependymal tissue was found at the base of the fourth ventricle. The author is inclined to ascribe to this lesion the cause of the diabetes. The pathological findings are given in detail.

ZENTRALBLATT FUER CHIRURGIE.

August 1, 1903.

1. An Operation for Puerperal Mastitis,

By EUGEN HOPMANN.

1. **Operation for Puerperal Mastitis.**—Hopmann recommends in all cases of suppurating mastitis to incise it partly away from the thoracic wall. Each abscess cavity is then separately opened from behind the breast and drainage tube inserted. The breast is then allowed to resume its normal position. The advantages of this operation are that the best kind of drainage is thus facilitated and the resulting scar is not a visible one. He reports two cases operated on in this way and says that the abscess cavities healed very rapidly. In one case the drainage tubes were removed in two weeks, and the patient was out of bed on the sixteenth day.

BERLINER KLINISCHE WOCHENSCHRIFT

August 3, 1903.

1. Erythema Exsudativum Multiforme and Complications,
By M. HOHLFELD.
2. Therapeutic Value of Rheumatin,
By J. SIGEL.
3. Mosquitoes and Yellow Fever,
By W. HAVELBURG.
4. Bovine Inoculation Tuberculosis,
By O. LASSAR.
5. Value of Agglutination in the Diagnosis of Typhoid Fever,
By R. STERN.

1. **Erythema Exsudativum Multiforme.**—Hohlfeld reports an unusual case of multiform erythema, complicated by chorea, nodular rheumatism and endocarditis and pericarditis. The patient was a nine year old boy of previous good health. The author emphasizes the fact that all the elements of the diseased condition speak for a common source of infection. He speaks of the intimate relation of multiform erythema and erythema nodosum and narrates a case which he observed in a young girl to substantiate this opinion.

2. **Therapeutic Value of Rheumatin.**—Sigel says this drug is a combination of salicylic acid and quinine and has been used by him in forty cases of acute and chronic articular rheumatism in doses of from forty-five to sixty grains daily. In acute cases it

appears to act as a specific even when other preparation of salicylic acid have been given in vain for a long time. In some cases, however, aspirin seemed to give better results, and the antipyretic effect of the drug was not always equally good. Very few side effects were noted, urticaria being seen most frequently.

4. **Bovine Inoculation Tuberculosis.**—Lassar says that out of 100,000 patients seen in the last ten years, tuberculous infections of the hands appeared only in thirty-four cases, but he has observed a tendency to tuberculous infection of the skin in men who handle diseased cattle. He believes it justifiable to state that bovine tuberculosis has pathological effects upon the human skin.

5. **Diagnostic Value of Agglutination in Typhoid Fever.**—Stern concludes a lengthy paper by asserting that the diagnostic value of agglutination must be regarded in this way—that it is not a reaction upon a particular kind of bacterium, but that it represents a reaction upon certain facts of bacterial cells. In the same dilution, a marked difference in the reaction is seen in different methods of making the test. The agglutination of related bacteria must be noted as important. The sero-diagnostic test cannot be regarded as a final determining element, but it renders the infection with the agglutinated organisms probable.

PRESSE MEDICALE.

August 12, 1903.

1. On the Use and Abuse of Medicaments in the Treatment of Chronic Diseases, Particularly of Pulmonary Tuberculosis,
By G. HAYEM.
2. Formol as a Histological Coloring Agent,
By CHARLES MOREL, and DALOUS.

1. **Use and Abuse of Medicaments.**—Hayem says therapy during the last thirty years has begun to return to the elementary theory of Hippocrates, that of *Natura medicatrix*. Our first therapeutic conquests are due to empiricism, mercury, iodine, and quinine, being of known value, although their mode of action is not understood. Chemistry has given us only silver so far, although we may expect from that science other valuable agents. We know now that therapeutic weapons are wanted which will reinforce the defensive power of the organism, by increasing the strength of the leucocytes, or by developing chemical antibodies. We work much in the dark. We have a patient suddenly attacked with delirium; his urine contains albumin, and we presume the delirium to be of uræmic origin. Investigation shows, however, that there has been a pseudo-rheumatism for six weeks and that sodium salicylate has been given daily; the delirium turns out to be toxic, due to the imperfect elimination of the drug. Another patient, about forty years of age, presents himself, complaining of pains in the stomach, and vomiting; he dislikes food, even milk, the tongue is coated, the pulse slow, but irregular, sleep is troubled by dreams. Careful inquiry elicits the fact that two months previously, worried by shortness of breath and palpitation, he had consulted a physician who prescribed digitalis, which he has been taking ever since. In this case although doubt-

less there is functional disturbance, there is no organic lesion, and it is now a case of digitalis poisoning, including a gastritis caused by the drug. Another case of Hayem's was in a young girl, in whom he suspected first gastric ulcers and then tabes. It developed that for a slight indigestion she had taken antiseptic powders, alkalies, acids, preparations of iron, and arsenic, bromides, antipyrine, chloroform, and purgatives, with the result of inducing a violent gastric crisis of purely drug origin. These cases are much commoner than supposed. Patients take for an indefinite period a medicine they believe to be harmless, or change from it to others also falsely supposed innocuous. Many mysterious symptoms in Hayem's cases disappeared by merely stopping all medicine. Parenchymatous gastritides, interstitial changes, lymphoid and leucocytic degenerations, hypopepsia, have all been noted as the effect of drugs, and not the least injurious from this viewpoint are various preparations containing alcohol. Hayem has named another class of patients alcalinophagi, from their unhappy habit of consuming vast quantities of sodium bicarbonate, and alkaline mineral waters. He gives analyses of gastric contents showing that instead of neutralizing hyperacidity, such a regimen produces a disastrous hyperchlorhydria. The laity should be warned against the habit of constant drugging, which produces not only local gastric disturbances, but also a genuine systemic poisoning with particularly dire effects on the nervous system. The injury done in tuberculous subjects may well be imagined. For the latter, let us rely mainly on exercise, rest, sunlight, good food, and careful management of the digestive tract.

August 15, 1903.

1. Cutaneous Actinomycosis of a Finger, By A. SICARD.
2. Observations on Tuberculous Rheumatism in Children, By V. BENTZ.

1. **Actinomycosis, Cutaneous, and in a Finger.**—Sicard remarks on the rarity of this disease either in the skin or in an extremity. His case was in a woman thirty-nine years of age, of negative history and robust health. When working at binding corn, she felt a sharp pain in the left index finger, caused by a cut from a leaf. A week later, the finger began to swell and in another week œdema invaded the palm of the hand. An incision let out some pus and considerable blood; carbolic acid was used in the dressing. At the end of the third week inflammation had invaded the periosteum. The pus showed actinomycosis histologically. Hot water locally, dressings of iodoform gauze, and potassium iodide internally, brought about a cure in a fortnight. Sicard thinks the disease could not develop so rapidly unless aided by saprophytes in the tissues. He advises the same treatment for all cases.

2. **Tuberculous Rheumatism.**—Bentz gives histories of three cases, two of arthritic, tuberculous rheumatism complicating chronic Pott's disease; the latter persisted, although the rheumatism yielded to rest in bed; no tuberculosis of thoracic or abdominal viscera. The third was a case of double arthritic tuberculosis of the knees, complicated with a suppurating osteitis of the left tibia,

which was cured without developing into a white swelling. Syphilis and gonorrhœa were carefully excluded diagnostically.

LYON MEDICAL

August 23, 1903

1. Treatment of Infantile Diarrhœas by Solutions of Gelatin, By E. WEILL, A. LUMIÈRE, and PÉHU.
2. The Cerebrospinal Fluid in Subacute Meningeal Processes of Rheumatic Origin, By JEAN LÉPINE.

1. **Gelatin in Infantile Diarrhœa.**—Weill, Lumière, and Péhu speak of the danger of ordinary drugs in nurslings and have experimented with definite amounts of solutions of gelatin mixed with the food in the nursing bottles. The gelatin must be the purest obtainable and sterilized. A ten per cent. solution is made in boiling water, and the same amount of salt was formerly added as in the standard solution, but this is done away with. The solution is filtered and then subjected to a heat of 120° C. for half an hour. In emergency, three quarters of an hour's boiling might suffice. It is then poured into test tubes, ten centimetres (or one gramme of gelatin) in each. When necessary, a tube is slightly warmed and its contents are mixed with the baby's next meal. Six to eight grammes of gelatin may thus be given daily; even fourteen have been administered, by adding the contents of two test tubes to one nursing. The effects have been favorable; movements decreased rapidly in frequency, the appearance, color, consistence, and reaction became normal. Results are best in simple gastroenteritis without great systemic disturbance; where there is high temperature, bronchopneumonia, albuminuria, or splenomegaly, the passages become normal, but the complication is unaffected. The effect of the gelatin apparently is not chemical, but mechanical; laboratory tests showed that it prevented the coagulation of cow's milk casein in presence of acid, but this did not hold in the stomach; the action must be a physical isolation of toxic products, though too feeble to influence normal digestive ferments. Whatever the reason, the clinical fact is incontestable; except in actual cholera morbus, the gelatin acts perfectly and is superior to bismuth and to proprietary preparations of that drug and of tannin.

2. **Cerebrospinal Fluid and Rheumatism.**—Lépine says rheumatism undoubtedly causes meningitis in certain cases, as has been proved by examination of the cerebrospinal fluid in biopsy. Lymphocytosis characterizes tuberculosis only, bacteriology would not distinguish between syphilis and rheumatism; cryoscopy is not yet sufficiently accurate, but Lépine thinks there is during rheumatism an excessive quantity of fibrin in the cerebrospinal fluid. In the case he describes, lumbar puncture gave immediate relief both to rheumatic pain and to persistent headache, the fluid was wanting in cells and bacteria, but six hours after centrifugation, it contained fibrin in a solid clot which half filled the tubes; this is the point that the author hopes will prove pathognomonic.

SEMAINE MEDICALE

August 20, 1903

Do Hospitals for Contagious Diseases Become Centres of Infection for the Neighborhood? By F. FARNARIER.

Hospitals for Contagious Diseases.—Farnarier recalls the recent protest of Parisians against the building of hospitals for contagious diseases within the city limits, showing that popular sentiment has decreed that such institutions are centres of infection. *A priori* arguments are valueless and Farnarier, excluding smallpox and typhoid fever, takes up measles, scarlatina, whooping cough, and diphtheria in the two principal hospitals for children, the *Hôpital des Enfants Malades*, fed by the sixth, seventh, and fifteenth precincts, and the *Hôpital Trousseau* in the faubourg St. Antoine. The mortality in each precinct surrounding these institutions is shown by tables and diagrams, and the conclusions drawn are that diphtheria is certainly spread by a hospital within a radius of two kilometres; that scarlatina is less so, but still markedly; that measles, being most contagious in the stage of invasion, is probably spread before the cases reach the hospital; and that whooping cough may be disseminated by a hospital, but hardly to an appreciable degree. The solution of the difficulty lies, not in banishing such hospitals to the suburbs, but in an elaborate pavilion system, each separate building to be surrounded by trees and by a "dead line" embracing a large area; and by careful supervision of all inlets and outlets of communication.

LA SEMANA MEDICA

Year X, No. 24, 1903.

I. Three Achondroplastic Fœtuses and Their Radiographs, By E. CANTON.

1. Achondroplastic Fœtuses.—Canton makes an interesting contribution to the literature bearing upon achondroplasia in his description of three fœtuses in each of which this condition was present. According to the author, but twenty such cases have been observed in Europe and none have previously been recorded in America. He believes, however, that the affection is not so rare as it would appear to be; but that faulty diagnosis accounts for the rarity with which it is reported; the condition being sometimes erroneously diagnosed as rhachitis or as true enanism. More frequent examinations by means of the x rays, he holds, would bring to light a greater number of cases in which this condition obtains. The radiographs accompanying the article show in perfect detail the micromelia and macrocephalia present in the three cases reported. The first of these cases was a female, born at term and well developed, save as to the upper and lower extremities, which were extremely short in proportion to the rest of the body. The skin covering these members, developed in sufficient amount to cover limbs of normal size, hung in loose folds. Examination with the x rays showed normally developed vertebral column, clavicles, ribs, and pelvic bones; deformity of the bones of the upper and lower extremities alone being seen. The length of the bones of the upper extremity will serve to illustrate the condition. Humerus,

twenty-three millimetres (normal length at nine months, seven centimetres); ulna, twenty-five millimetres (normal length, six and a half centimetres); radius, eighteen millimetres (normal length, five and a half centimetres). A like shortening of the bones of the hand and lower extremity was seen. In striking contrast to the underdeveloped extremities was the overdeveloped head, which measured in its greatest circumference thirty-seven centimetres. The bones of the face did not participate in the excessive development in any of these cases; therefore the author holds that the term macrocrania should be applied to the deformity of the head rather than macrocephalia. Like inequalities in the size of the bones were seen in the two remaining fœtuses which were born at the ages of seven and seven and a half months, respectively. All died shortly after birth or were still-born. These cases demonstrate, in the author's opinion, that achondroplasia is a disease of early intrauterine life; as the bones were but little longer than they are when in the cartilaginous state. On the other hand, the diameter of the bones was normal; the explanation of their normal thickness being found in the fact that periosteal ossification is not retarded in achondroplasia; while development which depends upon the epiphysial cartilage is arrested; hence the decreased length. Achondroplasia is to be differentiated from rhachitis—with which it was for many years confounded—and true enanism. Achondroplasia is a disease of early intrauterine life, while rhachitis usually develops in the first extrauterine months. In achondroplasia the deformities are symmetrical and affect the long bones of the extremities; while rhachitic deformities are asymmetrical and may affect any part of the skeleton. Macrocrania accompanies the former, while hydrocephalia is frequently associated with the latter. Achondroplastic bones are hard, strong, smooth, and never fractured. Rhachitic bones are soft, irregular, fragile, and often fractured. Achondroplasia is to be distinguished from true enanism by the fact that dwarfs are symmetrically small in the entire body; while the achondroplastic is stunted solely in the growth of the extremities and is overdeveloped cranially. The pathogenesis of achondroplasia is not understood.

ROUSKY VRATCH.

Saturday, June 21, 1903.

1. On Movable or Floating Kidney.
By V. L. IAPOVSKI (*Concluded*).
2. On a Fat Ferment (Lipase) in the Intestinal Juice,
By V. N. BOLDYRIEFF.
3. A Case of Syphilitic Polyarthritits,
By K. Z. VILLANENE.
4. The Education of Manliness in Children,
By A. Z. LAZARIEFF (*To be concluded*).

1. Movable Kidney.—Iapovski reviews in detail the ætiology and pathology of movable kidney. In speaking of the anatomical features of movable kidney the author dwells on the investigations of two Russians, Volkoff and Delitsine, who have proved by a series of plaster casts that the degree

of mobility of the kidney depends upon the shape and size of the renal fossa, and that this fossa varies within certain limits in different individuals. The narrower it is in its lower portion, the more difficult it is for the kidney to slide downwards and outwards, the only directions in which it is movable, owing to the normal attachment of the perirenal fascia. The fact that movable kidney is much more rare in men than in women is explained, according to the Russian observers quoted, by the conformation of the renal fossa in women, where it is broader and more shallow and cylindrical in shape than in men, who have a rather funnel-shaped fossa renalis. Other important anatomical factors in the ætiology of movable kidney are the length of the renal vessels, and the amount of intraperitoneal pressure. According to Volkoff and Delitsine, the fact that the fossa is broader and shorter in some persons than in others is the dominant predisposing cause to movable kidney, and they have established a standard which they call the coefficient of renal mobility. This figure is obtained by multiplying by one hundred the product obtained by measuring the distance between the ensiform and the pubis and dividing this by the smallest diameter of the abdomen. For inhabitants of Berlin, for example, this coefficient has been found on the average to be 77. The present author considers as erroneous Glénard's theory that the presence of movable kidney is only a secondary effect in every instance of the general abnormal mobility of the abdominal organs known as enteroptosis. While the presence of enteroptosis undoubtedly gives all the conditions favoring renal mobility, yet every clinician has seen numerous cases in which there is movable kidney without the slightest reason for suspecting an enteroptosis.

In speaking of the treatment of movable kidney, the author says that an operation should not be resorted to until the palliative measures have proved of no avail, especially not in those instances in which the symptoms seem to be of nervous origin. Cases in which all the symptoms depend solely upon the movable kidney, and in which palliative measures are of no avail are to be operated upon. On the other hand, in cases in which the symptoms are the result of purely nervous irritability, it is better to use the expectant plan and to try by strengthening the patient to overcome his nervous disturbance. The measures to be employed for this purpose include forced feeding, rest in bed, the wearing of an abdominal support, or an especially constructed corset. In cases with frequently recurring attacks it is advisable to have the patient wear a corset with a special abdominal pad affixed at the lower end of it, so as to compress the abdomen and to push the kidney upward and backward. At the time of the attacks the measures to be used are hot applications, morphine, and other analgetics.

2. **Fat-Ferment in the Intestines.**—Boldyrieff, in investigating the chemical constituents of intestinal juice found a fat ferment, or lipase, to which he attributes an important rôle in digestion. Previous to 1840, when Tiry discovered a new method of obtaining the intestinal juice, very little was known concerning the chemical nature of this secretion, and important digestive properties were assigned to it.

Since then the technics of obtaining the intestinal juice in animals has been greatly improved, and it was found that some form of stimulus must be applied to the intestine in order to produce enough juice for investigation. If the stimulus was not of the right quality, the juice secreted was very poor in ferments, and so it came about that several observers denied that the intestinal juice possesses important digestive properties. None of the modern authors that have written extensively on digestive ferments mention a fat ferment in the intestine, except Vella and Schiff, and these are not sure that such a ferment exists, and admit the possibility of the fat fermentation in the intestine being due to bacteria. The present author, however, asserts that such a ferment (lipase) does exist, and that it plays a distinct rôle in the digestion of fats. Recently Cohnstein proved that fats are absorbed largely in a decomposed condition, and Kastle and Loevenhart stated that the existence of droplets of fat in the intestinal wall showed that there takes place during absorption a synthesis of the glycerin and fatty acids constituting fats. Lipase has also been found, in addition to its presence in the intestines and in the pancreatic juice, in a variety of organs, and in the blood. Within the past few years two other ferments have been discovered in intestinal juice, "entero-kinase" (Schepovalnikoff), which renders the proteid ferment of the pancreas active, changing it from zymase into trypsin, *i.e.*, from an inactive into an active ferment, and "erepsin" (Cohnheim), the function of which is to finish the work of the pancreatic ferments and to split up into crystalline products the peptones and albumoses formed under the influence of these ferments. The fact that a lipase is present in the intestinal juice is merely a confirmation of the general law of the omnipresence of digestive ferments, inasmuch as a lipase is found in the stomach, the pancreatic juice and the intestinal juice.

3. **Syphilitic Polyarthrit.**—Villanene reports the case of a man aged thirty-two years, with a syphilitic history dating five years previously, who developed all the symptoms of chronic articular rheumatism, with affections of a number of joints. The use of salicylates was of no avail. He had no signs of syphilis, except scars of the chancre and of buboes, and his glands were slightly enlarged and indurated. The epiphyses of the large bones were enlarged and tender, the knees swollen, and the gait painful and stiff. The muscles of the leg and thighs were atrophied and the ankle-joints presented the same changes as the knees. The left shoulder was somewhat more prominent than the right, and motion was limited in abduction, extreme motion being painful. The muscles of the arm and forearm were markedly atrophied. There was a spina ventosa at the first phalanx of the little finger of the left hand. There was pain on pressure over the small joints at the tarsometatarsal junction. Antisyphilitic treatment had the desired effect, and the patient gained in weight, as well as in strength. The ætiology of the joint affection was undoubtedly syphilitic, and the interest in the case was its rarity and the fact that in the absence of skin lesions it was so apt to be taken for chronic rheumatism.

BOSTON MEDICAL AND SURGICAL JOURNAL.

August 27, 1903.

1. The Invalid's Egypt, By F. GORDON MORRILL.
2. The Treatment of Degenerative Diseases of the Nervous System by Massive Doses of Strychnine, with Special Reference to Tabes Dorsalis, Progressive Muscular Atrophy, Optic Nerve Atrophy, and Pseudo-Muscular Hypertrophy, By GRAEME M. HAMMOND.
3. A Brief Summary of the Surgery of the Œsophagus, By SAMUEL J. MIXTER.
4. Inferences to be Drawn from the Examination of the Gastric Contents, By ELLIOTT P. JOSLIN.

1. The Invalid's Egypt.—Morrill calls attention to the fact that from the medical point of view there are two Egypts, Upper and Lower. (1) Lower Egypt. All lower Egypt is subject to a mild form of malaria, and the climate, as a whole, is not especially suitable for invalids. There are three principal stations, but of these, only one, Helouan, can claim to be a genuine invalid's resort during the entire season. The three chief resorts are: (a) Helouan, situated near Cairo, and in the desert. It enjoys during "the season" (December 1st to April 1st) a mean maximum temperature of 71.5° F., and a mean minimum of 50° F., with absolute extremes of 97° F. and 37° F. The relative humidity is 55.5°. The accommodations at this resort are fair and there are opportunities for outdoor sports. (b) Ghezireh Palace Hotel, perhaps the safest place for those who do not care for Helouan, or to whom a desert climate is not a necessity. (c) Ramleh, the only other place in lower Egypt worthy of consideration. It is situated on the sea coast near Alexandria and will usually be found a comfortable place for a couple of weeks about April 1st. (2) Upper Egypt. There are only two stations where comfortable hotels can be found: (a) Assouan and (b) Luxor. (a) Assouan is the warmest, driest, and cleanest place in Egypt. It is situated just below the first cataract and, taking the season through, it has an almost perfect climate. It has a mean maximum temperature of about 80° F. and mean minimum of 54° F. The relative humidity averages 41. Walking, boating, and riding facilities are excellent, and there are good police and sanitary regulations. (b) Luxor is a good half way station between Assouan and Lower Egypt. Both these resorts are free from malaria, and are to be preferred to any of the Lower Egypt stations. For Lower Egypt, between Christmas and March 10th, one should dress as one would in New York or Boston in the late autumn or the month of April. In Upper Egypt the same rule obtains in January and the first two weeks of February, while before and after this period summer garments are worn.

2. Degenerative Diseases of the Nervous System: Treatment.—Hammond's paper is based on the results obtained in the treatment of eleven cases. There are four cases of tabes, three cases of optic nerve atrophy, three cases of progressive muscular atrophy and one case of pseudomuscular hypertrophy. The treatment consists in administering strychnine in gradually increasing doses. The initial dose is $\frac{1}{40}$ to $\frac{1}{50}$ grain three times a

day. The daily dose is then increased by about $\frac{1}{500}$ grain a day until the maximum dose is reached. This maximum dose is not a fixed one. In the cases reported by the author the largest dose was $\frac{4}{5}$ of a grain; the average maximum dose was from $\frac{1}{4}$ to $\frac{2}{3}$ of a grain three times a day. No toxic symptoms were ever noticed. The treatment must be continued for a long time, at least a year, in order to obtain favorable results. The author reports his eleven cases in detail, and he concludes as follows: "It would seem, therefore, taking all the cases together, that the massive doses of strychnia employed for a long time had undoubtedly been instrumental in arresting degeneration. . . . I would point out that in not a single instance was any patient restored to a normal condition. Such a result was not anticipated. Neurones once destroyed cannot be recreated."

3. Surgery of the Œsophagus.—Mixer classifies the chief causes calling for surgical intervention as follows: (1) Congenital malformations, such as doubled œsophagus or pouches. (2) Impacted foreign bodies. (3) Malignant disease. (4) Syphilis. (5) Cicatricial strictures. The author discusses the best treatment for each of these conditions; his advice, very briefly, is this: (1) The ideal method, for the first class of cases, is excision of the pouch and suture of the œsophagus. If operation is contraindicated, the systematic passage of proper bougies will often give highly satisfactory results. (2) Impacted foreign bodies are best removed, by most surgeons, by œsophagotomy or gastrotomy. The skilled laryngologist will often be successful in his attempts to remove foreign bodies by means of forceps. (3) Malignant disease is usually hopeless, so far as cure is concerned. As a palliative measure Symond's method of permanent tubage is of great help. If the disease is high up, œsophagotomy is to be preferred to gastrotomy. (4) Syphilitic strictures are rare. They call for dilatation and specific treatment. (5) Cicatricial strictures are most often due to the swallowing of alkalies. They are, as a rule, difficult to dilate and rebellious to treatment. The best results will be obtained by sawing through the stricture with a string (Abbe's method). Dunham's thread swallowing method, of obtaining an initial passage through a strictured œsophagus, has enabled the author to operate on several cases that without the aid of this method would have proved hopeless.

September 3, 1903.

1. The Resistance of Tissues as a Factor in the Manual Reduction of Congenital Hip Dislocation, By E. H. BRADFORD.
2. Privileged Medical Communications, By DAVID W. CHEEVER.
3. The Workings of the New York Law, By WALTER SOREN.
4. Privileged Communications to Physicians, By FREDERICK J. STIMSON.

1. Congenital Hip Dislocation.—Bradford was formerly of the opinion that the greatest obstacle to the reduction of the congenitally dislocated hip was the fibrous capsule that surrounds the joint. By his recent experience in operating

by incision in certain resistant cases he has been led to abandon his former beliefs and in his present paper he details his reasons for his change in views and describes the experiments he has performed to confirm his clinical deductions. The author summarizes his conclusions as follows: (1) The resistance offered by the capsule to the correction of congenitally dislocated hips is not more important than that offered by the muscles. (2) The chief resistance to forcible abduction is from the strong tendon of the adductor magnus. (3) The resistance to pulling down the head comes from the hamstring group and the long tendon of the adductor magnus and iliotibial band. (4) The resistant tissues can be overcome by small incisions at a distance from the hip. (5) In the lighter cases manual manipulative reduction is sufficient. (6) In resistant cases, mechanical force which pulls upon and abducts the limb, arranged so as to also directly act upon the capsule, is of assistance. (7) Where the tendon of the adductor magnus is so strong that an immoderate amount of force is needed in stretching, it would seem advisable to divide the chief resisting tissues rather than to incur the danger of severely bruising the tissues by the force used. The division of the tendon can be done either before the operation of forcible correction or at the same time.

2. Privileged Medical Communications.—Cheever suggests the following solution for this rather intricate subject: "It shall be considered unprofessional for a physician to divulge anything confided to him by a patient unless: (1) With the patient's consent. (2) To defend himself when accused. (3) To expose crime. In all other cases, such professional confidences shall be classed as privileged communications. . . ." This paper and the other two on the same subject, the latter written by lawyers, which appear in the present number of this Boston journal, are of the greatest practical value, and will be found to answer many questions which constantly arise in the daily routine of every busy practitioner.

3. The Workings of the New York Law.—Soren first quotes the original New York law in regard to confidential communications between physician and patient. The three chief points in the law which have been passed upon by the higher courts of appeal are these: (1) What shall be considered to constitute the relation of physician and patient? (2) In any given case, what shall be considered as information "acquired in attending a patient?" (3) What information shall be considered as "necessary" to enable the physician to act as such? The author cites a number of cases on each point and thus affords a good opportunity for the formation of individual opinion as to the working of the law. The author then takes up the consideration of the amendments passed in 1877 and 1893 and shows to what extent they have modified the original law of 1836. This paper is of special value to all physicians practising in the state of New York.

4. Privileged Communications to Physicians.—Stimson handles his subject on very broad lines. He believes that in most cases the common law stands

right, and that it is wiser in all to leave the whole matter to the common law. If the common law on the subject is to be done away with and a statute adopted in its place, the author would recommend a combination of the laws of Pennsylvania and North Carolina; that is, adopt the Pennsylvania principle that the privilege extends only to civil cases, and this with the exception of the competency of persons making a will, and the very luminous phraseology of the North Carolina statute, which substantially states the common law, that is, it allows the judge to determine when the communication by physicians of knowledge acquired while attending the patient is necessary for a proper administration of justice.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

August 29, 1903.

1. Pneumonia and Pleurisy in Early Life Simulating Appendicitis,
By J. P. CROZER GRIFFITH.
2. Abdominal Pain in Pleurisy and Pneumonia,
By JAMES B. HERRICK.
3. The Passing of Chronic Rheumatism,
By JAMES J. WALSH.
4. Dangers Attendant on Attempts at Gaining the Interval in Operations for Appendicitis,
By RICHARD H. GIBBONS.
5. The Fourth of July, 1903, Casualty List.

1. Pneumonia and Pleurisy Simulating Appendicitis.—Griffith reports in detail 21 cases, 8 of which came under his personal observation, of pneumonia and pleurisy in which symptoms of appendicitis were prominent. Confusion in diagnosis is most apt to happen when the patients are very young: The condition is, however, not unknown in later life. Abdominal pain is most likely to occur when the disease in the chest is situated in the lower part of the thorax, but there is reason to believe that it may also occur when it is in the upper portion. It is also more deceptive when the right side of the thorax is affected, since the right side of the abdomen is then liable to exhibit pain, and the presence of appendicitis is suggested. Combined with the abdominal pain in these cases there is also constipation and abdominal tenderness and distention. These symptoms, together with the vomiting which quite commonly ushers in an attack of pneumonia in childhood, easily produce a clinical picture very closely simulating that of appendicitis. The distinction is to be made by giving due consideration to (1) the sudden rise of temperature to 103° F. or thereabouts, and the tendency to maintain this degree; (2) the acceleration of respiration, which is out of proportion to the pulse rate or the pyrexia; (3) the relaxation of the abdominal walls between the respirations; (4) the diminution or the disappearance of tenderness on deep pressure with the flat of the hand; (5) the possible presence of cough. Finally, no operation for appendicitis should ever be performed until after a careful, and perhaps repeated, examination of the lungs has been made. All these points will, however, frequently fail to make the diagnosis certain, as the experience of some able observers has shown.

2. Abdominal Pain in Pleurisy and Pneumonia.—Herrick considers the various ways by which pains, originating in the thorax, may be

transmitted to the abdomen. The author cites a number of illustrative cases. In conclusion he says that cases may occur in which at first it may be impossible to say whether the trouble is abdominal or thoracic. Each case must be judged on its own merits, and the decision as to immediate operation or waiting, not settled by any hard or fast rule. Certainly in some doubtful cases with threatening abdominal symptoms, it would be better to err on the side of operation and do a laparotomy than to let a possible ruptured appendix, gall bladder, stomach or intestine go untreated for six or twelve hours. An exploratory abdominal incision could, perhaps, be made under local anæsthesia or laughing gas. This would avoid the danger of adding bronchitis, or aspiration pneumonia to an already existing pulmonary inflammation, if such happened to be the primary trouble and the peritonæum is found normal. If peritoneal trouble is found ether or chloroform anæsthesia can be added and the reparative surgical procedure instituted.

But with care and circumspection doubt will seldom arise. The main safeguard in the diagnosis is to think of the possibility of a thoracic origin for the abdominal symptoms. It will then be generally found that there is some thoracic pain, as well as abdominal, or there will be cough or expiratory grunt, perhaps a bloody or rusty expectoration, or the respiration will be increased out of all proportion to the abdominal pain and tympany or the temperature will rise too suddenly and too high for the supposed abdominal accident. A light touch hurts. Quiet, steady, deep palpation with the flat hand does not increase the pain, and at the beginning of inspiration, there is a yielding of the abdominal wall that is seldom seen in true peritonitis.

3. Chronic Rheumatism.—Walsh asserts that there seem to be a few cases of true acute rheumatic arthritis, or of the subacute variety which produce changes in the joint tissues that are persistent and progressive. There is a growing impression that even of these few cases the majority are due not to rheumatism alone, but a mixed infection, the secondary infection being responsible for the persistent pathological lesions. Certainly cases of true chronic rheumatism, that is of progressive pathological changes in joint tissues for which no other cause except rheumatism can be found, are very rare. So much so, very probably, as to constitute them a medical curiosity. Certainly the vague pains that are usually attributed to the uric acid diathesis or to lithæmia are, in the author's experience, due rather to a neurotic constitution as a predisposing factor and overwork of particular groups of muscles, usually under unfavorable conditions, as a direct ætiological agent, than to any other cause. This, of course, does not deny the existence of any of those achy, painful conditions, which are so common and so frequently demand treatment. It does not deny that during damp weather, and in people who work or live in damp locations, there will be a distinct tendency to chronic aches and pains, just as there would be to frequent toothache under the same circumstances. It only transfers these affec-

tions from the column of chronic rheumatism, where they are all jumbled together, to the manifest opprobrium of our therapeutics, to separate columns, with regard to some of which we know our therapeutic impotency, but with regard to most of which we are fully aware that massage, rest, local treatment and improvement of the constitutional condition will do much to get rid of the symptoms.

4. Appendicitis: Dangers of Waiting for the Interval.—Gibbons pleads for immediate operation in all cases of appendicitis. He asserts that the "ailments," "difficulties," and "disturbances" of digestion, so common in childhood, are nearly, if not always due, to a diseased appendix. He does not consider the appendix a functionless organ. He rather holds to the view that it furnishes a secretion which keeps the cæcum lubricated and its contents fluid.

5. Fourth of July Casualty List.—This is an elaborate statistical report. See News Items.

MEDICAL NEWS

August 29, 1903.

1. Extirpation of the Urinary Bladder,
By FRANK HARTLEY.
2. The Prognosis of Tabes: An Analysis of 140 Cases of Locomotor Ataxia,
By JOSEPH COLLINS.
3. The Toxic Actions of Urotropin; with Report of a Case of Hæmaturia and Hæmoglobinuria Following a Dose of Seven and One Half Grains,
By WARREN COLEMAN.
4. Observations on Eighteen Abdominal Sections, Performed Within the Past Year, Including the Successful Removal of an Ovarian Cystoma Weighing Seventy-two Pounds,
By EDWARD N. LIELL.
5. The Effect of Erysipelas Upon Atrophic Rhinitis; with Report of Case,
By LEWIS S. SOMERS.
6. Œsophagoscopy,
By EDWARD A. ARONSON.
7. Indications and Counterindications for Prostatectomy,
By L. BAZET.
8. Moral Insanity or Degeneracy,
By F. H. STEPHENSON.

1. Extirpation of the Urinary Bladder.—Hartley gives the following indications for extirpation of the urinary bladder: (1) Malignant growths, involving the organ primarily or secondarily; (2) tuberculosis; (3) exstrophy; (4) ureterovaginal fistulæ following extirpation of the uterus; (5) fibroids of the uterus. The last two indications are rare, but a few instances are recorded, in the literature, of excision of the bladder for these reasons. The author's recommendations, based on the statistical study of the reported cases and on his own experience, are these: (1) In malignant disease, if the ureters and the bladder are involved, the complete extirpation of both and the implantation of the ureters into the vagina gives the best results both as to recovery and freedom from recurrence. This method, however, gives the patient no control over the urine and requires the constant use of the catheter under the best conditions. If the patient is a male, complete extirpation of the bladder is the proper procedure; but whether it is best to implant the ureters into the urethra or the skin or into the intestine is yet an

unsettled question. (2) In tuberculous disease of the bladder, excision is justified when all other forms of treatment have failed. The author reports one personal case. The patient made a good recovery and, nine months after operation, was still in good condition and was able to work all day as a clerk. The author prefers intestinal to vaginal implantation, because of the favorable results following this method in exstrophy of the bladder, both as concerns the infection of the kidney and the tolerance of the urine by the rectum. (3) The third condition demanding at times the removal of the bladder is exstrophy of this organ. The best methods of treating the condition, provided the construction of a continent bladder is impossible, are: (1) Cystectomy with the intestinal anastomosis of Maydl or Pozzi. (2) Vesico-rectal anastomosis (Frank). (3) Extirpation of the bladder and urethral implantation of the ureters (Sonnenberg). (4) Extirpation of the bladder and vaginal implantation of the ureters (Pawlik).

2. The Prognosis of Tabes.—Collins states that the prognosis of tabes must at best be very uncertain. The symptoms of tabes are customarily said to display themselves in three stages which constitute the course of the disease: (1) The preataxic stage; (2) the ataxic stage; (3) the profoundly incoördinate and hypotonic stage, often spoken of as the paralytic stage, although there is no actual paralysis except as a complication. The duration of these three stages cannot be fixed; it varies enormously. Babinski relates the case of a woman in whom the disease had existed, in a benign way, for forty years. On the other hand, patients have been known to become bedridden at the end of a few months. The length of time that elapsed between the first symptom of the disease and the appearance of ataxia in the author's 140 cases was three years and five months. Collins is of the opinion, however, that these figures are misleading. He believes that the preataxic stage of tabes in all cases, save those of the motor type, is oftener above five years than below. The average actual duration of the disease it is impossible to estimate. The factors that influence the prognosis are: (1) The clinical type of the disease; (2) what may be called the anatomical type of the disease (the region of the cord involved); (3) sex and age; (4) the individual, his occupation and treatment. The prognosis today is more favorable than it was twenty-five years ago. The disease has apparently changed in character.

3. The Toxic Action of Urotropin.—Coleman concludes: (1) That urotropin, even in small doses, specially if not well diluted, is capable of producing toxic effects in susceptible individuals. (2) That the toxic effects are of three chief classes: (a) *Minor Toxic Effects*:—irritation of stomach; diarrhoea, and abdominal pain; measles-like rash; headache, and ringing in the ears; renal irritation with, at times, albuminuria. (b) *Irritation of Bladder*:—strangury; irritant action on raw surfaces in the urinary passages. (c) *Hæmaturia and Hæmoglobinuria*. (3) That the more important of these toxic actions have been

produced by the intravenous injections of formaldehyde. (4) That the toxic actions of urotropin are due to special susceptibility to the action of formaldehyde, to interference with the usual deposition of formaldehyde in the body or, to the liberation of an unusual quantity of formaldehyde. (5) That the toxic effects of urotropin generally disappear completely within a few days after the drug is withdrawn.

5. Erysipelas and Atrophic Rhinitis.—Somers reports a case which shows an apparent clinical cure of atrophic rhinitis in which ozæna was a prominent symptom. As the cure occurred after a severe attack of facial erysipelas he concludes that this latter disease produced the cure of the nasal condition.

MEDICAL RECORD.

August 29, 1903.

1. The Syphilitic Affections of the Heart and Aorta.
By LEONARD WEBER.
2. Peritonitis (Peritoneal Adhesions) Caused by Muscular Trauma,
By BYRON ROBINSON.
3. The Quick and the Dead: A Plea for Urn Burial,
By W. J. CONKLIN.
4. Hydrotherapy in the Treatment of Chronic Diseases,
By FREDERICK M. ROSSITER.
5. Suprapubic Operation for the Radical Cure of Varicocele, with a Report of Eighteen Cases,
By ROBERT N. THORNBURGH.

1. Syphilis of the Heart and Aorta.—Weber asserts that sclerosis of the coronary arteries and softening and degeneration of the cardiac muscle, observed in persons under fifty years of age who have had syphilis, are often of syphilitic origin. Such conditions are not infrequently met with, but their frequent specific origin is not yet generally recognized. At autopsy there is no way of distinguishing the arterial sclerosis of syphilis from that due to other diseases. In the absence of syphilitic stigmata in a given case, it will be almost impossible to arrive at a correct diagnosis. We are justified, in the absence of any other satisfactory ætiology, of assuming syphilis and attempting to confirm the diagnosis by specific treatment in the case of a patient under fifty, having the following signs of myocarditis: weak impulse with accentuation of the second sound, arrhythmic action, tachycardia or bradycardia, faintness, dyspnœa on exertion, angina pectoris, general depression and weakness. Next in frequency to specific sclerosis stands syphilitic aortitis with degeneration of the semilunar valves and aneurysmal dilatation of the aorta. Such cases will be accompanied by cardiac hypertrophy and muscular degeneration. The importance of recognizing the syphilitic origin of the class of cases the author studies lies in the improvement in them that may be obtained by treatment with mercury and the iodides. The degenerative processes may often be arrested. The damage already produced can, of course, not be repaired. Potassium iodide alone will for short periods give encouraging results, but the best and most permanent results will be had by using mercury in combination with the iodide. The author reports four cases that illustrate his beliefs.

2. **Peritonitis Caused by Muscular Trauma.**—Robinson bases his conclusions upon the post-mortem inspection of the abdomen of 350 adult males and 135 adult females. He attempts to demonstrate that muscular trauma produces peritoneal adhesions (peritonitis), and that such adhesions compromise visceral function and structure and eventually give rise to disease and invalidism. How frequent such traumatic adhesions are the author does not state. He has observed them in children but rarely, if ever, before they have begun to walk.

5. **Suprapubic Operation for Varicocele.**—Thornburgh reports eighteen successful operations by this method. Since writing his paper he has had fifteen more cases, all of which have been successful. The advantages of the suprapubic route are: The field of operation can readily be rendered aseptic; a dressing once properly applied will remain indefinitely and will not be affected by the movements of the patient; primary union is a practical certainty. The method is being quite extensively used by the U. S. Army Medical Department. The operation is performed in the following manner: The finger of the operator is introduced into the external ring and a nick made with the knife directly over the tip of the finger. With this nick as a landmark an incision 3 cm. long is made, parallel to Poupart's ligament. The deep fascia is cut through with the knife, and then a little blunt dissection brings the cord into view. No blood vessels of any moment are encountered; oozing being checked by hot normal salt solution. The sheath of the cord is picked up between mouse-tooth forceps and torn open. The finger of the operator is introduced and the whole cord easily raised from its bed and brought out of the wound; a ligature carrier is then placed beneath it. The vas is recognized by its white appearance and cord-like feel, and is separated from the rest of the cord downward to within an inch of the testis. The testis can readily be brought into view by gentle traction on the cord. The vas is separated from the vessels for about 6 or 7 cm. in an upward direction also. The vessels are tied with No. 3 cumolized catgut ligatures, the vessels between them (5 to 6 cm.) excised, the stumps inspected for oozing, the ends approximated and the ligatures tied to each other; thus forming a support for the testis. It is unnecessary to isolate and save the spermatic artery and a vein. At the end of twelve days the dressings may be removed and in three or four days more the patient may return to his usual occupations. A suspensory should be worn for at least six weeks following the operation. The paper concludes with brief notes on the eighteen cases reported.

AMERICAN MEDICINE.

August 29, 1903.

1. On the Destruction of Bacteria in Vaccine Pulp with Potassium Cyanide,
By HARVEY R. GAYLORD, and DAVID E. WHEELER
(Illustrated).
2. The Treatment of Congenital Luxation of the Hips,
By GWILYM G. DAVIS

3. The Danger That May Lurk in Blind Eyes,
By CASSIUS D. WESCOTT, and BROWN PUSEY.
4. Enteroptosis: Its Ætiology, Symptomatology, Treatment, and Prognosis,
By THOMAS R. BROWN (Concluded).
5. The Matas Treatment of Aneurysms, with Report of a Case,
By W. O. BULLOCK, JR.
6. The Medical Treatment of Dysmenorrhœa,
By FRANK C. HAMMOND.

1. **The Destruction of Bacteria in Vaccine Pulp.**—Gaylord and Wheeler consider that in potassium cyanide we have a differential germicide capable of killing bacteria without injuring delicate protoplasmic structures. Its successful use, in their attempts to sterilize vaccine, strongly suggests that the organism of vaccine partakes of the nature of animal protoplasm and is a protozoon. From a practical point of view potassium cyanide may prove a ready and accurate means of freeing vaccine from bacteria.

2. **Treatment of Congenital Luxation of the Hip.**—Davis is not in favor of the use in congenital luxation of the hip of excessive violence, with its consequent tearing of muscles and the danger of producing even fatal traumatism. It is not always desirable to persist in attempts at reposition and not to remain satisfied unless the head of the femur enters the acetabulum. In young children, if the head of the femur can be placed near the site of the original acetabulum, and it usually can, the final result, if not perfect, will usually be very good. The treatment of the older patients has not yet been worked out so well as the treatment for those under seven years of age.

4. **Enteroptosis.**—Brown concludes in this number a rather elaborate paper on enteroptosis. We give only his views of the treatment: "As to the proper treatment to be employed far too much reliance has been placed undoubtedly by some on surgical interference. We should recognize that we are treating in the great majority of cases a displacement of several of the abdominal viscera, and surgical interference is only justifiable when the symptoms are referable to an *especial displaced organ* or when dietetic, medicinal, and mechanical treatment have been tried without success. Thus the general practitioner and pædiatrist should recognize the frequency of this condition and should attempt by all means at his command to minimize its evil manifestations in those congenitally predisposed to this condition. The surgeon should realize that the condition is in the majority of cases a medical, not a surgical disorder, and that the stitching up of the kidney is a most irrational means of treating general displacement of the abdominal viscera and that he is frequently operating upon the kidney because of symptoms which are entirely referable to the displacement of the stomach and intestines."

6. **Dysmenorrhœa.**—Hammond divides the treatment of dysmenorrhœa into (1) the prevention of the attack, (2) the treatment of the attack, and (3) the treatment between the attacks. He

reviews the results obtained by treating the "genital spots" in the nose with cocaine in cases of dysmenorrhœa. His figures seem to show that, in Germany at least, the results have been extraordinarily successful. Cauterization of these same spots, in the experience of several men, permanently cures far fewer cases than cocaine relieves. The author also calls attention to those cases of dysmenorrhœa in which the pain is localized in the lower right quadrant. In such cases the pain is not infrequently due to an appendicular colic, caused no doubt by the pelvic congestion, and the patients can be permanently cured only by removal of their appendix.

THE DUBLIN JOURNAL OF MEDICAL SCIENCE

June, 1903.

1. Notes on Fourteen Cases of Operation for Radical Cure of Inguinal Hernia, between September and December, 1902, at the Royal Infirmary, Dublin,
By WALTER C. STEPHENSON.
2. Hæmoglobinuric Fever: Its Ætiology, Diagnosis and Treatment,
By FRANCIS GETHIN HOPKINS.
3. Delirium in Febrile Conditions,
KINGSMILL WILLIAMS JONES.

1. **Radical Cure of Inguinal Hernia.**—Stephenson tabulated his *fourteen cases* of inguinal hernia. A skin incision, from three to four inches in length, is made over the inguinal canal. The external ring is exposed and cleared, and the sac isolated as far as the internal ring. A small opening is made in the side of the sac and the finger passed into the general peritoneal cavity to make sure that the sac is empty. Preference is always given to Kocher's most recent method of dealing with the sac, which the author calls "the ideal operation for radical cure of hernia." With a long and slender bladed forceps the apex of the sac is invaginated and passed along the inguinal canal into the general peritoneal cavity. The skin being retracted upward, a small longitudinal incision is made through the anterior abdominal muscles against the point of the forceps, exposing the sac. The sac being secured by artery forceps and pulled (inverted) through this incision, is transfixed, ligatured, and amputated close to the abdominal muscles. Then, assuring the safety of the sac by keeping it behind the finger, seven or eight Lembert's sutures are inserted in such a way that a puckered groove is formed, which projects backward into the canal along its whole length.

In this operation, as compared with Bassini's (1), there is less injury to the tissues, in that the external oblique muscle is not divided along the inguinal canal as in Bassini's operation; (2) the patient can be permitted to go about sooner with less risk of injurious effects; (3) should suppuration occur and the deep stitches give way, the parts are in no worse condition than before the operation. Bassini's operation, however, is preferable (1) in most congenital hernias, where the sac and cord are in intimate connection; (2)

where the sac cannot be seen at the external ring, and it is necessary to explore the inguinal canal.

2. **Hæmoglobinuric Fever.**—Hopkins describes this disease as having a geographical distribution practically identical with that of malaria, running a very severe course, characterized by a more or less sudden onset, with prolonged rigors, severe pyrexia, marked bilious symptoms, with the appearance almost at the same time of hæmoglobinuria. Its cause is obscure; it never occurs in a regular quinine taker or in one who pays attention to malarial prophylaxis. The author combats the theory that it is due to quinine. The most successful treatment is that introduced by Dr. Gouzieu, late chief medical officer of Dahomey. This consists essentially in the subcutaneous injection of standard saline solution, seven grammes of pure salt to 1,000 grammes of water. From 100 to 300 grammes of this solution are injected subcutaneously in the hypogastric region. One injection daily is the rule.

3. **Delirium of Fever.**—Jones says that in simple delirium any of the ordinary hypnotics (preferably paraldehyde) acts well. In a case of busy delirium, or delirium ferox, the one drug which seems useful is apomorphine in $\frac{1}{15}$ grain doses to adults. Instead of making the febrile delirious patients vomit, it makes them sleep, and it is more efficient when given about ten minutes after an injection of $\frac{1}{4}$ grain of morphine.

MISCELLANEOUS.

Concerning the Identity of the Tubercle Bacilli in Men and in Cattle, and the Immunization from Tuberculosis of Cattle.—Von Behring (*Zentralblatt für innere Medizin*, July 11, 1903, No. 28) affirms that the bacilli discovered by Koch which are the cause of tuberculosis in human beings cannot be distinguished morphologically or by culture from those which cause tuberculosis in cattle. In conjunction with Römer he has discovered that there is a variety of tubercle bacillus in fowls which is identical with one which is found in cattle, although the conditions which obtain with the bacilli of mammalia show differences which are quite marked with reference to the conditions in fowls. It is quite probable that by the ingestion of tuberculous sputa from human beings fowls may become tuberculous, just as human beings become tuberculous from the ingestion of tuberculous meat. In order to estimate the disease-producing effect of a given variety of tubercle bacillus we must consider not only its virulence, but the number consumed, the avenue of entrance, and the physiological condition of the infected individual. The infrequent occurrence of tuberculosis in the new born is due to the yet imperfect development of the epithelium of the stomach and intestine. The author attaches no great importance to the danger of transmitting tuberculosis by means of the flesh of tuberculous cattle and by butter which contains bacilli, for such means of nutriment are used by adults, who, under ordinary conditions are protected by the relatively small dosage of the tubercle virus which is received by the intestinal apparatus.

Letter to the Editor.

THE TREATMENT OF ENURESIS BY MEANS OF EPIDURAL INJECTIONS.

NEW YORK, September 1, 1903.

To the Editor,

Sir: In your issue for August 29th I noticed a short abstract of a most important paper of Kapsammer's on the new treatment of enuresis. I wish to call attention to a few more points, not mentioned in the abstract, which I think will interest especially the readers of the *New York Medical Journal*, the journal which gave us the original announcement of Corning's discovery. It was in practising Corning's method that Cathelin, in the year 1901, discovered the effect of endural injections on enuresis. Proceeding from the fact, established by Hallion in the year 1901, that in Corning's subdural injections it was not so much the effect on the marrow as the effect upon the roots of the cauda equina which produced analgesia, Cathelin injected a cocaine solution into the canal of the sacrum upon the roots of the cauda equina without entering the dural sac. In a woman who suffered from intolerable cystic pains and very annoying strangury he made an injection of 5 c.c. of a one-half per cent. cocaine solution. The patient, upon this, had complete anuria, so that the catheter had to be used, and this occurrence suggested the idea of trying epidural injection in enuresis. The first trial was made in the case of an old paralytic woman who for eighteen months had been suffering uninterruptedly day and night from enuresis. Two c.c. of a one-half per cent. cocaine solution were injected epidurally. During twenty-six hours following this injection the patient was dry, after which he emptied the bladder in the natural way after the sensation was felt that precedes the act in the healthy condition. This observation Cathelin communicated on April 27, 1901, to the Society of Biology. The first publication on the subject, giving the history of fifteen cases treated by Cathelin and Albarron appeared in the *Annales des maladies des voies urinaires*, also in the year 1901.

Kapsammer substituted for cocaine solutions injections of 10 c.c. of physiological solution of sodium chlorides, and says, as to the effect, that there exists no difference between the two.

A. ROSE.

Book Notices.

Sight and Hearing in Childhood. By ROBERT BRUDENELL CARTER, F. R. C. S., Consulting Ophthalmic Surgeon to St. George's Hospital, and ARTHUR H. CHEATLE, F. R. C. S., Assistant Aural Surgeon to King's College Hospital, Surgeon to the Royal Ear Hospital. London: The Scientific Press, Limited. Pp. viii-119. (Price, 2 shillings, net.)

This is an interesting little book written in a popular style. There is no hint in the preface or elsewhere of the demand which called it into being, unless it is the frequent reference in the preface to teachers. If read by a teacher, whose mind is in the state of receptivity demanded of the students, it

may broaden the mental vision so that the difficulties from faulty physical vision and hearing with which the dull pupils are struggling may be perceived, and so do its part in preparing the way for their improvement. If it succeeds in becoming read by the non-professional public it may do much good in the same way. Perhaps the best point of the book as a popular work is that the most energetic advocate of domestic medicine will find it difficult to obtain formulæ from it with which to torture his dependents by ill directed efforts to correct conditions which he does not understand.

A Manual of Diseases of the Eye for General Practitioners. By CLARENCE A. VEASEY, A. M., M. D., Demonstrator of Ophthalmology in the Jefferson Medical College; Assistant Ophthalmic Surgeon to the Jefferson Medical College Hospital; Ophthalmic Surgeon to the Methodist Episcopal Hospital; Consulting Ophthalmologist to the Philadelphia Lying-in Charity. Illustrated with One Hundred and Ninety-four Engravings and Ten Colored Plates. Philadelphia and New York: Lea Brothers & Co., 1903. Pp. iii-412. (Price, \$2.00, net.)

There is always a demand for small textbooks, as is evident from the numbers which appear yearly dedicated to the long suffering student and general practitioner. The faults inseparable from condensation are present in all, and, as Dr. Veasey says, it is difficult to decide what is best to include and the amount of space to be allotted to each subject, and here is ground for endless differences of opinion. In this class Dr. Veasey's book will take high rank, as it seems to be well and carefully written, the illustrations are excellent, and the general appearance is creditable.

The Practical Details of Cataract Extraction. By H. HERBERT F. R. C. S. Eng., Major I. M. S., Professor of Ophthalmic Medicine and Surgery, Grant Medical College. In charge of The Sir Cowasjee Jehangir Ophthalmic Hospital, Bombay; Fellow of Bombay University. New York: William Wood & Company. MDCCCIII. Pp. v-109. (Price, \$1.25.)

It is well known that surgeons in India perform very many operations for cataract, and when one of them presents his views he is entitled to have them received with respectful consideration. Cataract appears at an earlier age among the people of India than among other peoples, though the statement made by Hirschberg, that the majority of patients with cataract come to operation at about the age of forty, is disputed. Herbert says that there are twice as many patients over fifty as under that age.

The principal points in which Herbert's method seems to differ from that usually seen in this country are the very free use of a 1 to 3,000 corrosive sublimate solution before operation, the formation of a large conjunctival flap, and the irrigation of the anterior chamber as routine procedures. This free use of the sublimate solution he defends on the ground that a healthy conjunctiva is rarely seen in India and that more energetic measures to prevent infection are necessary as a rule than in Europe or America. But the statistics he gives would seem

to indicate that such a procedure could be made serviceable here when a patient with an unhealthy conjunctiva needed to be operated on.

The advantages of a section which extends slightly into the sclera and cuts a large conjunctival flap are alleged to be that the corneal wound is a little larger, so that the lens can escape more easily, and that the flap aids and hastens healing. The only serious drawback acknowledged is that the anterior chamber becomes filled with blood from the divided conjunctival vessels.

The removal in the capsule of Morgagnian cataracts is discussed, and some readers will be surprised to learn that one surgeon in India has performed this operation 1,651 times, with loss of vitreous in only 8.2 per cent. He is certainly entitled to be called expert.

Die traumatische Spätapoplexie. Von Prof. Dr. ROB LANGERHANS. (Berlin.) Berlin: August Hirschwald. 1903. Pp. 1-81.

This brochure is a polemic intended to disprove the existence of a late apoplexy dependent upon injuries to the vessels in the fourth ventricle, as originally set forth by Bollinger, whose contention is that at the time of injury the vessels sustain a lesion which only subsequently causes degeneration and thus permits of the escape of blood.

The searching tests of Langerhans in the post mortem findings in the cases of Bollinger and his followers have failed to reveal the lesion referred to. According to the author, other vulnerable points in Bollinger's teaching are the absence of gray degeneration in the brain tissue which always follows thrombosis of the vessels, the great variability in the length of time in which the hæmorrhage occurs, and the dark red color of the red degeneration, when encountered, speaking for an early rupture of the vessels.

That there are cases which only show manifestations of cerebral hæmorrhage at a late day is not disputed, but thus far the exact source of this hæmorrhage, in the belief of Langerhans, has not been proved.

Ueber die Ursachen, das Wesen und die Behandlung des Klumpfußes. Von Dr. JULIUS WOLFF, weil. Geh. Medicinalrath, a. o. Professor der Chirurgie und Director der Königl. Universitäts-Poliklinik für orthopädische Chirurgie zu Berlin. Herausgegeben von Professor Dr. GEORGE JOACHIMSTHAL. Mit Portrait Julius Wolff's und Textfiguren. Berlin: August Hirschwald. 1903. Pp. v-161.

The untimely death of the author of this monograph made it incumbent upon his disciple, Joachimsthal, to complete the book, which sets forth exhaustively the origin of congenital club foot in accordance with Wolff's theory, "Gesetz der Transformation der Knochen." To remedy the condition, Wolff's so called "functional orthopædy" is employed, which consists in successive manual *rédressements* at short intervals, leaving the bones of the foot to restore themselves to their normal shape. This they will tend to do under the influence of the trophic irritation innate in them, by virtue of which the external as well as the internal struc-

ture of a bone will adapt itself to the demands of its function. Lorenz, although he corrects the deformity of club foot in one sitting, also believes in this functional adaptation.

The technics as practised by Wolff is accurately described in the last chapter, by Joachimsthal.

The American Yearbook of Medicine and Surgery.

Being a Yearly Digest of Scientific Progress and Authoritative Opinion in all Branches of Medicine and Surgery, drawn from Journals, Monographs, and Text-books of the Leading American and Foreign Authors and Investigators. Collected and Arranged with Critical Editorial Comments by J. M. BALDY, M. D.; J. CHALMERS DA COSTA, M. D.; W. A. NEWMAN DORLAND, M. D.; GEORGE FETTEROLF, M. D.; JOHN H. GIBBON, M. D.; VIRGIL P. GIBNEY, M. D.; C. A. HAMANN, M. D.; HOWARD F. HANSELL, M. D.; BARTON COOKE HIRST, M. D.; D. BRADEN KYLE, M. D.; WENDELL REBER, M. D.; J. HILTON WATERMAN, M. D. Under the General Editorial Charge of GEORGE M. GOULD, M. D. Surgery and Medicine. Philadelphia, New York, and London: W. B. Saunders & Company, 1903. Pp. 3 to 671. (Price, \$3.)

The present volumes of the yearbook are almost complete in their condensed review of the world's medical literature. Every department is fully represented, and the wonderful advances in the various branches of medicine are, in many instances, elaborately recorded. The volumes are, as usual, profusely illustrated. Dr. Braden Kyle and Dr. George Fetterolf are this year in charge of the departments of otology and laryngology. These represent the only changes in the editorial board. The work continues to be popular and deserves its large following.

A Reference Handbook of the Medical Sciences, Embracing the Entire Range of Scientific and Practical Medicine and Allied Science. By Various Writers. A New Edition, completely Revised and Rewritten. Edited by ALBERT H. BUCK, M.D. Volume V. Illustrated by Chromolithographs and Five Hundred and Seventy-six Half-tone and Wood Engravings. New York: William Wood & Co., 1902. Pp. vi-873.

The fifth volume of this important work maintains the high grade of merit established in the earlier volumes, and in some respects is even more remarkable, notably in the subject of insanity, which is very ably treated in a series of articles which take up 125 pages of the volume. Exhaustive consideration of a subject so broad can scarcely be expected in the space allowed, but so far as the articles are concerned, we do not remember to have seen any contributions on this subject which are likely to be so satisfactory to the general reader.

Another subject very well treated is that of renal tuberculosis. The article on military hygiene while perhaps not of interest to so large a number of readers, is one that is very ably presented. But, after all, to particularize in a work which is so uniformly excellent is ill advised. The more we see of the work, the greater becomes our enthusiasm concerning it.

Anatomy of the Brain and Spinal Cord, with Special Reference to the Grouping and Chaining of Neurones into Conduction Paths. For Students and Practitioners. By HARRIS E. SANTEE, M. D., Ph. D., Professor of Anatomy in the College of Physicians and Surgeons, University of Illinois, etc. With a Preface by WILLIAM T. ECKLEY, M. D., Professor of Anatomy in the Medical and Dental Departments, University of Illinois. Third Edition, Revised and Enlarged. Chicago: E. H. Colgrove, 1903. Pp. xvii-226. (Price, \$2.00.)

This work is merely a concise treatise on the anatomy of the brain as it is generally expounded in textbooks in anatomy. There is no attempt made to discuss doubtful points, and no reference is made to any such discussion in literature. No consideration of the structure of the central nervous system from the standpoint of comparative anatomy finds a place in this work. It is merely a bald statement of brain and special cord topography; and as such we fail to see wherein it fills any gap in our needs. There are but two illustrations, and they are photographs of the cerebral exterior labeled to show localization of brain functions. The preface, by Eckley, simply praises the book.

BOOKS, ETC., RECEIVED.

Tratamiento Curativo de la Tuberculosis Pulmonar (Curatro anos de Experimentacion Clinica Por El Dr. ABDON SANCHEZ HERRERO, Catedratico Numerario, Con Fotograbados en el Texto, Segunda Edicion. Madrid: Administracion en casa del Autor Atocha, 76, 1), 1904. Pp. 375.

Transaction of the Seventieth Annual Session of the Tennessee State Medical Association, Nashville, 1903. The Seventy-First Annual Session will be Held in Chattanooga, Commencing Second Tuesday in April, 1904. Pp. 320.

Zeitschrift für Orthopädische Chirurgie Einschliesslich der Heilgymnastik und Massage. Unter Mitwirkung von Dr. Krukenberg in Liegnitz, Prof. Dr. Lorenz in Wien, Privatdocent Dr. W. Schulthess in Zurich, Privatdocent Dr. Vulpinus in Heidelberg, Oberarzt Dr. L. Heusner in Barmen, Privatdocent Dr. Joachimsthal in Berlin, Privatdocent Dr. F. Lange in München, Dr. A. Schanz in Dresden, Dr. Drehmann in Breslau. Herausgegeben von Dr. ALBERT HOFFA, Geh. Medicinalrath, a.o. Professor An Der Universität, Berlin XI, Band 2 Heft. Mit 49 in Den Text Gedruckten Abbildungen. Stuttgart: Verlag von Ferdinand Enke. 1903. Pp. 450.

Proceedings of the Connecticut Medical Society, 1903. One Hundred and Eleventh Annual Convention Held at Hartford, May 27th and 28th. Published by the Society. Gould A. Shelton, M. D., Samuel B. St. John, M. D., N. E. Wordin, M. D., Publication Committee. 1903. Pp. 465.

Verhandlungen des Vierten Nordischen Kongresses für Innere Medizin, zu Helsingfors D 4-6 Juli, 1902. Herausgegeben von OBERARZT DIR. DR. H. KOSTER, Generalsekretär. Stockholm: Kungl. Boktryckeriet, P. A. Norstedt & Soner. 1903. Pp. 272.

The Practical Medicine Series of Year Books, Comprising Ten Volumes on the Year's Progress in Medicine and Surgery, Issued Monthly Under the General Editorial Charge of GUSTAVUS P. HEAD, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School, Volume VIII, Materia Medica and Therapeutics, Preventive Medicine, Climatology, Suggestive Therapeutics, Forensic Medicine, Edited by GEORGE F. BUTLER, Ph. G., M. D.; HENRY B. FAVILL, A. B., M. D.; NORMAN BRIDGE, A. M., M. D.; DANIEL R. BROWER, M. D.; HAROLD N. MOYER, M. D. July, 1903. Chicago: The Year Book Publishers, 40 Dearborn Street. Pp. 326. Price of this Volume, \$1.50. Price of the series, \$7.50.

Miscellany.

Primary Tuberculosis of the Mesenteric Glands.—Carrière (*Zentralblatt für innere Medizin*, July 11, 1903, No. 28) finds secondary tuberculosis of the mesenteric glands common among children.

Pulmonary tuberculosis was found in 30 per cent. of all cases, tuberculous peritonitis in 40 per cent., tuberculous enteritis in 20 per cent., tuberculosis of the glands in 5 per cent., and of the bones and joints in 5 per cent. The nutriment furnishes the sole medium by which infection is accomplished. The bacilli may penetrate the intestinal mucous membrane without infecting it. From the lymphatics they penetrate to the glands, which then become tuberculous. Primary tuberculosis of the mesenteric glands at times occurs in children from three to ten years old. Predisposition is a marked factor in the history, and there may have been tuberculous disease of other structures. The disease usually begins with abdominal pain, the abdomen swells, then follow loss of appetite and strength, night sweats and emaciation. The disease may remain latent until the glands have become decidedly enlarged. In well developed cases of the adenopathy the belly is seldom retracted and it may be distended; sometimes it is compressible, sometimes hard and tense. The tumors are discoverable by palpation of the abdominal wall, of varying size, and slightly movable. They are hard and painful to the touch, and stand out the more prominently after the bowels have moved.

Diarrhoea alternates with constipation, the stools containing much fat. As the glands become hypertrophied there is compression of the vessels, nerves, and intestines in their vicinity. There may be œdema on one or both sides of the body, with ascites and varices, cyanosis, and coldness of the extremities. Irregular febrile movement is often present. This is one of the curable forms of tuberculosis, the glands often becoming calcified. A cheesy gland may burst into the abdominal cavity and cause general peritonitis, pyæmia or general miliary tuberculosis. The infected masses are often removable. Other treatment may be absolute rest, residence by the sea shore, alcohol baths, salt water baths, abundance of food, and sodium and iodine preparations with cod liver oil.

The Vitality of Bacteria from the Throats of Scarlet Fever Patients, with Special Study of Streptococci.—Weaver (*Journal of Medical Research*, May, 1903) has experimented with material obtained from the tonsils and pharynx by means of sterile cotton swabs. He reached the following conclusions: 1. Streptococci are almost always if not constantly present in the throat in cases of scarlatina. In the early stages they are usually in very large numbers, becoming less numerous as the disease progresses. 2. The streptococci in the throat of scarlatina patients resist drying as long as the other bacteria which are usually present, and they often outlive all other forms, sometimes living for 90 days after the material is collected. 3. They will live for a long time in milk. 4. A small quantity of sugar in the nutrient media will facilitate the cultivation of streptococci. 5. Streptococci from scarlatinal

anginas are not different from streptococci derived from other sources so far as cultural and morphological peculiarities are concerned.

Typhoid Fever in Infancy and Childhood.—Cotton (*Clinical Review*, June, 1903) refers to the alleged infrequent occurrence of typhoid fever in young children and to its absence in infancy before the time of the Widal test. Postmortem examinations usually revealed the fact that the diagnosis of typhoid fever had been incorrect. Out of all the discussions arises the fact that even in adults, this disease varies in its manifestations in different epidemics, in different stages of the same epidemic, and in different individuals. The bacillus of Eberth is found in the blood in 21 to 57 per cent. and in the urine in 20 to 62 per cent., but the failure to find it should not negative the diagnosis. The Widal test indicates the existence of the fever with a margin of error in only 2 to 5 per cent. of cases, and this test is easily made. The absence of the intestinal lesions in infancy and early childhood is explained by the physiology of the intestinal tube of the early period of life. It is owing to this that the Peyer's patches and solitary follicles in children show only infiltration and exudate instead of the necrosis and loss of tissue which is found in adults. A recent epidemic in Chicago showed many cases of typhoid fever in children which responded to the Widal test, and this fact leads the author to urge the systematic use of this test during all typhoid epidemics. The author uses the term "infantile type" of the disease in view of the many peculiarities which children show compared with the same disease in adults. The adult type is seldom seen in children. The invasion in children is usually obscure. The duration of the fever shows a ratio inverse to the age and may continue only 7 to 10 days; it rarely shows the typical typhoid curve. The toxæmic symptoms are far less well marked than in adults. Accidents and complications are less frequent, with the exception of skin lesions. Relapses are also less common, and when this occurs the spleen has usually remained enlarged. Perforation of the intestine rarely occurs, and the mortality of the disease is not half as great as in adults. As to the treatment, good nursing is indispensable, hydrotherapy by sponging, sprinkling, or tubbing is very successful, calomel and sodium bicarbonate, and daily enemata of salt solution are useful means, bromides, strychnine, and alcohol are often indicated. The diet should consist of milk and broths. The discharges should be disinfected long after convalescence has occurred.

Njam ad-Dyn Mahmoud.—By a melancholy rony, says Dr. P. Guigues, professor in the French faculty of medicine and pharmacy at Beyrout, Syria, in *Janus* for January, the biography of Njam ad-Dyn must be brief. If his parents thought that in consequence of the brilliant name of the "Star of Religion," he would endure for posterity, they were miserably deceived, for it would be difficult to imagine a more complete consignment to oblivion than has fallen to the lot of the individual in question.

Njam ad-Dyn Mahmoud ibn Dya id-Dyn Ilyas ach-Chyrazy lived in the seventh cycle of the

Hegira (14th or 15th century A. D.). His name betrays a Persian origin. That is all that is known of his history, and modern historians, like Amoureux, Leclerc, and Wüstenfeld do not mention him.

Only one work of his is known, and the manuscripts even of that are rare; Professor Guigues has found reference to it only in the catalogues of the libraries of the British Museum, Gotha, and Leyden. That of which he has made use belongs to the library of the university of Saint Joseph, at Beyrout. The work bears the name of *Kitâb al-hâouy fy 'ilm it-tadâouy*, which may be translated "The Book containing the Art of Treatment." It must not be confounded with the *Kitâb al-hâouy de Abou Bîkr ar-Razy al-Ansary*. Anyhow, the work is a veritable encyclopædia; it is in five parts; (1) general diseases, (2) fevers, (3) diseases of the limbs, (4) simple remedies, (5) compound remedies. The *Kitâb al-hâouy* appears under the number 808 in the supplement to the catalogue of the British Museum as "A Treatise of Medicine, by Njam al Din Mahmud B. Diya Ilyas Shirazi. The author, yielding, he says, to the instance of some of his friends, [has] described in this compendium the ordinary and indispensable remedies that should be kept in store or carried about in travelling; nothing is known of the author's life, or precise date. He cannot, however, have written this work later than A. H. 737, for a copy bearing that date exists in the Gotha library . . ."

In the catalogue of the Leyden library, it is numbered 1376: "*Al-hâouy fy 'ilm it-tadâouy* auctore Nadjmo 'd-din Mahmud ibn Caino 'd-din Elias as Shiazi, Cujus ætatem nullibi video memoratam (deest mentio ejus in libro Cl. Wüstenfeld. die arabischen Aertze . . .)"

The bibliographical lexicon of Hadje Khalifa (Mustapha ben Abdallah) refers to it under number 4385: "Hawwi fi ilm al tedawy, conquisitor de arte sibi ipsius medicinam faciendi, auctore Nejm ed-din Mahmud ben elscheikh Sâin ed-din Shirazi."

Guigues cannot publish the entire work, which forms a voluminous manuscript of 592 pages, in places very closely written. The first three parts present nothing of marked interest; the fourth and fifth parts it was which particularly attracted him. The parts put aside, however, contain many curious passages, and the author gives a few specimens to show the foundations of the medicine of the Arabs, opponents of anatomy and lovers of the occult as they are: *Explanation of Tinnitus (bourdonnement)*. "Tinnitus is a voice that a man hears, which does not come from without, but is caused by the loud flatulence that is disengaged from the great overflow in the head." *The Therapeutic properties of the Quince*. "The quince is cold, dry . . . rejoices the heart. . . . It is said that the prophet (whom may God bless and grant salvation) was not acquainted with the quince. One day, on his arrival from Damas, one of his disciples having some quinces with him, offered some to the prophet (to whom may God grant salvation). Immediately he took one in his hand and said 'God is great, this rejoices the heart.'"

The fourth and fifth books, however, fixed the

author's attention. The fourth comprises simple drugs arranged in alphabetical order; the fifth treats of compound remedies. The last book he has published in *extenso*;¹ it is divided into 50 *Bâb*, or chapters. He gives both the text and a translation as literal as possible. The fifty chapters are not all devoted to pharmaceutical forms; four chapters are allotted to general matters, to the trial of remedies, to the properties of foods, etc. The remaining 46 chapters, even, may be reduced, for besides the chapters treating of real pharmaceutical forms, lozenges, robs,² oils, etc., there are others which are mainly a collection of formulæ having the same therapeutic action—emetics, emmenagogues, remedies for sterility, tinctures, etc. It is, therefore, at the same time a codex, that is to say, a collection of remedies grouped according to their pharmaceutical affinities, and a formulary based upon their therapeutical actions. But it is more a codex than a formulary, and in it are to be found all the Arab pharmaceutical formulæ.

The fourth part has served Professor Guigues as the groundwork for the glossaries which accompany his work. The simple drugs mentioned in this part, to which are added those met with in the course of translation of the fifth part, form three glossaries: 1, Arabic-French. The drugs are arranged here in the order of the Arabic alphabet, and are written in Arabic characters. 2, French-Arabic, with the drugs arranged in the order of the French alphabet; here the Arabic characters do not appear and the Arab names are transliterated into Latin characters, the scientific and common names appearing side by side. In addition there is an original portion, 3, in which the Professor Guigues has gathered from the *Pandectarum opus* of Matthæus Sylvaticus, the *Synonyma Serapionis* (the translation of Girardus Cremonensis), the *De Simplicibus Medicina* of Serapion (the translation of Simon Januensis), and the Matthioli's *Commentaries of Dioscorides*, the principal alterations that the Arab names have undergone at the hands of these authors, with examples of each word. Thus arranged, the three glossaries enable any one, whether conversant with Arabic or not, to recognize and identify the names of the drugs mentioned in the work.

Finally, in the introduction, Dr. Guigues has given an essay upon Arab pharmacy and the pharmaceutical formulæ employed by the Arabs, with notes on the nature of various preparations. He believes his work to be the only one on the Arab Dispensatory, except the mediæval and renaissance works, in Latin, of Serapion, Avicenna, etc. In the upward of 650 formulæ included in the work some are certainly anterior to the Arabian school, such as the theriacæ, confec-

tions, etc., which are to be found in all formularies, and some even, such as diachylon, in modern pharmacopœias. But a large part, such as the *suffefs*, *chyâfs*, *wochs*, *scanjabins*, *halaoua*, etc., not to mention numerous collyria and hair tinctures, are peculiar to the Arabs.

Official News.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending September 5, 1903:

BACHMAN, R. A., Assistant Surgeon. Ordered to the Naval Station, Cavite, P. I.

DUNN, H. A., Assistant Surgeon. Detached from the Naval Station, Cavite, P. I., and ordered to the *Solace*.

KOHLASE, O., Assistant Surgeon. Detached from duty at the Naval Hospital, Mare Island, Cal., on September 10th, and ordered to duty at the Naval Museum of Hygiene and Medicine. October 1, 1903.

McCLANAHAN, R. K., Assistant Surgeon. En route home from the Asiatic Station, via the *Solace*.

MUNSON, F. M., Assistant Surgeon. Ordered to the *Frolic*.

NEILSON, J. L., Assistant Surgeon. Ordered to the *Iris*.

OMAN, C. M., Assistant Surgeon. Detached from the *Solace* and ordered to the *Monadnock*.

STRINE, H. F., Assistant Surgeon. Ordered to the *Isla de Cuba*.

Marriages and Deaths.

Married.

BUDDENBOHN—PLACK.—In Baltimore, Maryland, on Tuesday, September 1st, Dr. Charles L. Buddenbohn and Miss Sophia L. Plack.

FREEMAN—CRANE.—In Baltimore, Maryland, on Saturday, August 29th, Dr. E. B. Freeman and Miss Rosa M. Crane.

HALSEY—SOHST.—In San Francisco, California, on Wednesday, August 26th, Dr. Wilbur Halsey and Miss Sophie Sohst.

MILLER—BELL.—In Wilmington, Virginia, on Wednesday, September 2d, Dr. Clifton Meredith Miller and Miss Mary Ashley Bell.

REISSE—RACKOW.—In St. Louis, Missouri, on Tuesday, August 11th, Dr. E. C. Reisse and Miss Clara Rackow.

SHARP—MAAG.—In Philadelphia, Pa., on Wednesday, September 2d, Dr. Arthur Sharpe and Miss Natalie Maag.

WARD—CURTISS.—In Washington, D. C., on Wednesday, August 26th, Dr. William K. Ward and Miss Claudia C. Curtiss.

Died.

BARRETT.—In Nauheim, Germany, on Saturday, August 22d, Dr. William Cary Barrett, of Buffalo, N. Y., in the seventieth year of his age.

BRIGHAM.—In San Francisco, California, on Monday, August 24th, Dr. Charles Brooks Brigham, in the fifty-ninth year of his age.

CORNELIUS.—In Philadelphia, Pa., on Sunday, August 30th, Dr. Robert Cornelius, in the fiftieth year of his age.

ENGLISH.—In Mendota, Illinois, on Monday, August 31st, Dr. Frank M. English, in the fifty-seventh year of his age.

GORDON.—In Lodi, California, on Monday, August 24th, Dr. Charles H. Gordon, in the seventy-first year of his age.

MEYER.—In St. Louis, Missouri, on Sunday, August 30th, Dr. Edmund Y. Meyer, in the fortieth year of his age.

MYERS.—In Paterson, New Jersey, on Tuesday, September 1st, Dr. Charles F. W. Myers.

ROBBINS.—In Philadelphia, Pa., on Monday, August 31st, Dr. Emily R. Robbins, in the seventy-second year of her age.

RUSSEL.—In Detroit, Michigan, on Monday, August 31st, Dr. George B. Russel, in the eighty-eighth year of his age.

¹ Le Livre de l'Art du Traitement de Njam ad-Dyn Mahmoud: Remèdes composés. Texte, traduction, glossaires, précédés d'un essai sur la Pharmacie arabe, par le Docteur P. Guigues, Professeur à la Faculté Française de Médecine et de Pharmacie de Beyrouth. 1 vol. in — 8 de 560 pages avec une reproduction photographique d'un fragment du manuscrit à Beyrouth, chez auteur. Prix 15 francs [envoi franco par la poste]. Texte arabe seul, 1 vol., 240 pages. Prix 6 francs franco.

² Rob: a preparation made from the juice of a fruit by evaporating to the consistence of a soft extract, generally with the addition of sugar. Foster's *Encyclopædic Medical Dictionary*.

New York Medical Journal AND Philadelphia Medical Journal. CONSOLIDATED.

A Weekly Review of Medicine

VOL. LXXVIII, No. 12.

SATURDAY, SEPTEMBER 19, 1903.

WHOLE No. 1233

Original Communications.

THE PATHOLOGY AND TREATMENT OF RHEUMATOID ARTHRITIS.

By EDWARD M. MERRINS, M. D.,

NEW YORK.

Clinical and pathological investigation is gradually reducing to order the large and confusing group of chronic joint affections known as "rheumatic," or "rheumatoid," but we are still far from understanding their essential nature, and consequently their relation to one another and to other forms of joint disease. The subject is made more difficult by the bewildering number and diversity of names in constant use to designate one or other of these conditions. In a reconsideration of the pathological nature of rheumatoid arthritis, it is necessary therefore to define the term, and to state beforehand that it does not cover those joint affections, properly termed "osteoarthritic," in which enlargement of the articular ends of bones is the principal pathological feature.

By rheumatoid arthritis is meant a constitutional polyarticular disease, which may occur in either sex at any period of life, but which chiefly affects young and middle aged women. Commencing usually in the peripheral joints, it advances symmetrically toward the trunk, in its extreme form remorselessly crippling every joint in turn, even to the jaws and vertebræ, until the patient is reduced to a pitiable condition of helplessness and deformity. The principal accompanying symptoms are irregular fever; pain; anæmia; vasomotor disturbance; deranged reflexes; muscular atrophy, tremors, and cramps; and in children, enlargement of the spleen and lymphatic glands.

PATHOLOGY.

According to recent investigation (1), the morbid changes in the joints are at first confined to the synovial membrane, which becomes inflamed; this is accompanied by effusion into the joints, which, with the thickening of the tissues, gives them a characteristic spindle shaped appearance. Hence the name "fusiform arthritis," and at this

early stage the disease may remain quiescent for a long period (Fig. 1.).

As the disease progresses, the capsule of the joint becomes thickened and adherent to the overlying tissues; the synovial membrane possesses the appearance of soft red granulation tissue, and creeps pannus-like over adjacent cartilage, erod-

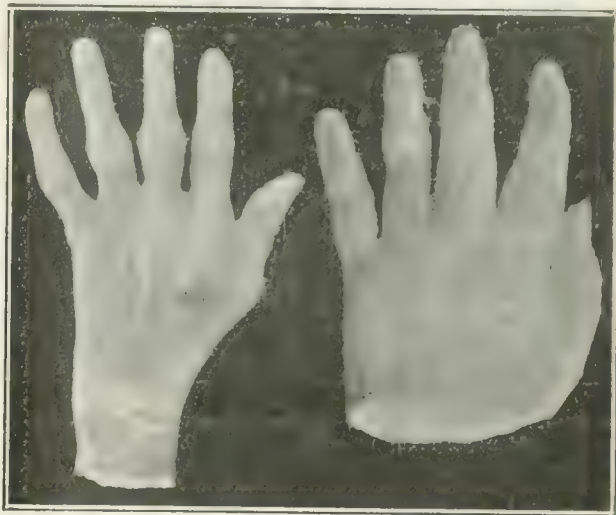


FIG. 1.—Fusiform arthritis.

FIG. 2.—Rheumatoid arthritis, showing constriction at joints, after spindle shaped swelling has subsided.

ing it and exposing the bone beneath; later, the tissues become denser with new fibrous tissue which in the course of time contracts and gives the joints a constricted appearance (Fig. 2).

The nutrition of the joint is further impaired by the lumen of the small bloodvessels being diminished by perivascular fibrosis and contraction, and the bones show the changes of a rarefying osteitis. It has recently been urged that in the pure type of the disease there are no osteophytes or other bony enlargements (3); that if we do find them it is evidence of two distinct diseases in the same person (4). This may be so, but in practical experience it is hard to make this distinction. It is much more reasonable to suppose that in this, as in several other joint affections, there are two opposing forces at work, the one leading to atrophy, the other to hypertrophy, and that other factors beside the actual disease itself, such as

pressure, wear and tear, the different tissue proclivities at different periods of life, may determine the presence and extent of the hypertrophic process.

The deformities of joints, so conspicuous a feature of the disease in its later stages, and caus-



FIG. 2.—Rheumatoid arthritis, showing atrophy of some bones and hypertrophy of others. (*Med. Chron.*)

ing it to be appropriately named "arthritis deformans" depend chiefly upon the pathological changes in the joints, particularly the laxity of ligaments and tendons; partly upon the neurotrophic atrophy, atony, and contracture of certain muscles and the overpowering action of their unimpaired opponents; and to some extent, upon the retention of the limb in one position, either from inability to support its weight, or from the desire to avoid pain.

Ankylosis is usually fibrous, but where the eroded articular surfaces of opposing bones are held together in a permanently fixed position by muscular contracture and pain, bony ankylosis occurs—whence the name, "arthritis ossificans"—and this may take place in almost every joint, as in the "ossified men" of dime museums.

ETIOLOGY.

The disease is said occasionally to begin in an acute manner with symptoms clinically indistinguishable from those of acute rheumatic fever, except that salicylates have no effect and the joint troubles become chronic. If this were certainly

so, it would be a strong indication of specific origin. But such cases are comparatively rare; it is still a question whether they are not really acute articular rheumatism, followed by rheumatoid disease, for unhappily, the joints do not always return to their normal condition after an attack of acute articular rheumatism, nor does the disease itself respond infallibly to salicylic acid and its compounds.

As a rule, rheumatoid arthritis follows in the wake of some acute infectious disease, such as influenza, Malta fever, typhoid fever, gonorrhœa, measles, scarlet fever, septic amygdalitis and, most frequently, acute articular rheumatism. It is also found in connection with puerperal disease and certain acute disturbances of menstruation (5). In all conditions where the system is slowly and continuously absorbing septic material, as from decayed teeth (6), chronic indigestion, utero-ovarian disease (7), cystitis (8), the retention of unusually foul fecal matter (9), anal abscess and ulceration (10), it is liable to occur. It has also been produced experimentally, by the injection of various organisms into the blood stream (11). Bannatyne (12) and others assert that they have discovered a bacillus or diplococcus peculiar to the disease and its specific cause, but other investigators have been unable to ratify this. Indeed, the heterogeneous infective antecedents of rheumatoid arthritis and its whole aspect as commonly seen, point to the steady poisoning of the system by the toxic products of

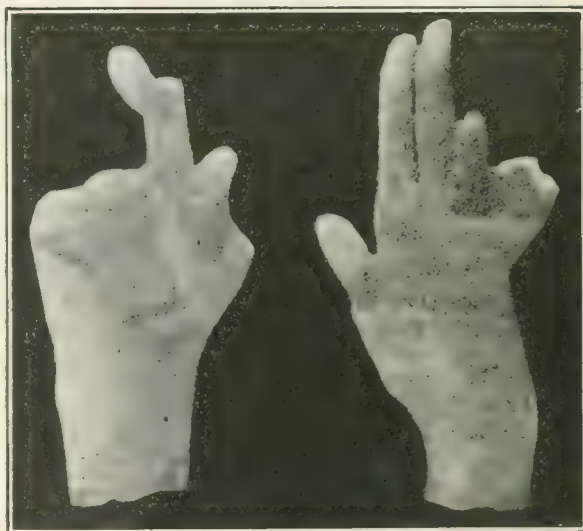


FIG. 4.—Arthritis deformans (King).

disease, rather than to the direct action of any one particular kind of germ.

Depression of the nervous system, as from cold and wet, worry, sorrow, sudden shock, or the prolonged nervous strain of nursing relatives at the point of death, defective sanitation and improper

and insufficient food, all very markedly predispose to the disease.

Judging, therefore, by the facts so far presented, rheumatoid arthritis is a disease due to toxines elaborated in the system, the product of no one specific germ, but of many miscellaneous infections, with impaired nervous vitality as the most prominent predisposing cause.

In ascertaining, however, the relative position of rheumatoid disease in any classification of joint disease, we cannot ignore a group of cases following non-infective disease or injury of the nervous system. In them there are pain, stiffness, and swelling of joints, the whole complex of symptoms closely resembling that of rheumatoid disease, even to the terminal condition of ankylosis. The lesion may be of the brain, as in hemiplegia; of the spinal cord, as after concussion or wound, and in myelitis; of the peripheral nerves, as in affections where the nerves supplying a joint have been compressed or irritated by excess of callus after a fracture, or by a tumor. This resemblance, strengthened by the occurrence in rheumatoid disease of certain symptoms clearly dependent on disorder of the nervous system, some of which precede the arthritis, and by the undeniable fact that a large proportion of these cases arise during or immediately after a time of profound sorrow or anxiety, has led authorities, such as Remak, Senator, and Duckworth, to regard the disease as being purely neurotrophic.

There is nothing improbable in this opinion, though to-day it is receiving little support. In our search for the ultimate cause of this and similar diseases, step by step we are driven back until we reach cell life and then are obliged to end our quest by vaguely attributing everything wrong to "faulty metabolism." Now Robin (13) has recently called attention to a group of morbid states in which there is an inaptitude of the plasma and tissues for fixing the inorganic principles of the food. As the osseous changes in rheumatoid arthritis are mainly those of atrophy and demineralization, it may well be that profound depression of the nervous system from sudden injury or prolonged mental strain, may so impair the vitality of the cells as to render them incapable of appropriating the nutriment they require; consequently, there is interstitial or dimensional atrophy of the arthritic tissues.

At the same time all these neurotrophic joint affections should be closely scrutinized, to see if there has not been some possible source of toxæmic infection. In hemiplegia, for example, this might arise from cystitis or bedsores. The traumatic cases appear to rest mainly on the authority of Weir Mitchell (14), who came across them

during his experience as a surgeon in the civil war. Surely, it is very hard to exclude every form of infection or autointoxication in cases occurring during that troubled period. Apart from the lowering of the system by poor food, bad water, exposure, and nervous strain, and the more positive danger of systemic infection from typhoid fever, dysentery, and other zymotic diseases common among soldiers in time of war, there was the further possibility of infection from open wounds, which in those pre-Listerian days were treated with simple water dressings and took a very long time to heal. This actually occurred in Weir Mitchell's cases. Of the first case, it is recorded, "both wounds sloughed, leaving scars one and one half inches in diameter;" the second, "had fevers and rigors with darting pain in the wound;" in the third, the wound took two months to heal, and so on. It is not contended that pure nerve lesions may not occasion atrophy of bone; but to induce an arthritis there needs to be also some persistent irritation, and it is probable that this is generally, if not invariably, furnished by toxines of some kind. For instance, such a purely neurotrophic disease as locomotor ataxia was once held to be, with arthritic lesions very closely resembling those of rheumatoid disease, is now ascribed to the influence of a postsyphilitic toxine. In other cases, there is direct proof of the nervous system and joints being affected concurrently by infective disease. Thus, in the case recorded by Triboulet (15), a woman aged nineteen years died while suffering from a severe chronic arthritis accompanied by extreme muscular wasting. The spinal cord showed extensive degeneration, and there was also degeneration of certain nerve roots as the result of a local meningitis. Had not the history of this case been carefully recorded, it would have been easy to have explained the arthritis as being secondary to the meningomedullary lesions. The history, however, showed that both the arthritic and the neural changes were the common result of puerperal infection.

The definition of the disease may therefore be extended by stating that the germs and toxines which produce the arthritis, exert at the same time a selective poisonous effect upon the nervous system.

During the last two years the writer has had thirty-four cases of this disease under observation. Of these, thirty were in women. In eight instances there was either menstrual or uterine disease, or the patient had given birth to a large number of children, and the probability of uterine disease could not be excluded. In seven cases the disease followed either acute articular rheumatism, typhoid fever, or

influenza; one patient was scrofulous in her childhood, and another had had severe attacks of malarial fever. In one the disease appeared during a long illness caused by eating poisonous mushrooms; in another, it followed a chill while seabathing; and in one there had been a severe injury to the back of the head and spine from a fall. In ten cases nothing could be ascertained that of itself would account for the disease, but in nearly every instance the patient had been under some intense nervous strain just prior to the first onset of the disease.

Of the four males, one contracted the disease while working as a boy in a coal mine: one was a worker in lead and antimony; the third had cystitis; and the fourth was a physician who was laid up with rheumatoid arthritis for over a year immediately after being chilled for several hours during his attendance on an obstetrical case, and then getting wet through while driving home in the rain.

The peculiar susceptibility of women to this disease as shown by the above figures is very remarkable, and it is borne out by the statistics compiled by Garrod, Bannatyne, and others. An inflammatory condition of the reproductive organs from which the system is continuously absorbing septic material, or which enables germs to obtain access to the blood stream and eventually reach the joints, exists in many cases, but will not explain all. As the disease often appears about the time of the menopause, it has been suggested that when menstruation ceases or becomes irregular, some noxious material is retained in the system, which has much to do with producing the disease. Of this there is no direct proof.

Another supposition is that when the ovaries are no longer functionally active, either some secretion is lost, or other glands such as the thyroid are injuriously affected by their inactivity. In support of this is the occasional coexistence of Graves's disease with rheumatoid arthritis (16), and the symptoms of tachycardia, muscular tremors, etc., which the two diseases have in common (17). Furthermore, the osseous changes which occur in acromegaly, gigantism, dwarfism, in all of which there is an abnormal condition of the thyroid gland and pituitary body (18); the connection of rhachitis with the thymus gland (19); the appearance of rheumatoid arthritis in several instances after the removal of the ovaries (20), and the cure of osteomalacia by the same surgical process (21), also give weight to it. Notwithstanding these facts, the opinion is largely speculative. Our knowledge of glandular diseases is not yet on such a firm and broad basis as to enable us to reach out and include within them, other diseases

simply because of more or less similarity of symptoms. Concerning the ovariectomy cases, it may be safely said that the morbid condition which necessitated the removal of the ovaries, had more to do with the arthritis than any loss or perversion of their secretion.

Probably a clue to the explanation why one sex is more liable to the disease than the other, may be found in the family history of these patients. Most of them belong to families with an arthritic or neuropathic diathesis; the men suffering with gout, the women with rheumatoid arthritis, or either sex with "chronic rheumatism" or osteoarthritis, the inherited tendency thus manifesting itself in various ways. In this connection, the question is equally interesting, Why are women so rarely afflicted with gout? In fact, the disease seldom or never attacks them in its typical form, though the gouty tendency may be transmitted through them to their sons and grandsons even more certainly than through the male line. According to the latest and most convincing theory, gout itself is directly due to some form of auto-intoxication. (22). This would bring the two diseases into very close affinity, the morbid concatenation which leads to gout in men, being very similar to that which leads to rheumatoid arthritis or to osteoarthritis in women. While in the present state of our knowledge, however, these inherited sexual peculiarities cannot be fully explained, it still holds true that in nearly all these cases there is an inherited arthritic or neuropathic diathesis.

A comprehensive definition of rheumatoid arthritis will therefore include the following inferences and facts:

(a) The disease occurs in patients with an arthritic diathesis, or whose nervous system has been impaired by physical injury, shock, sorrow, or anxiety.

(b) Its history and the general clinical aspect of the disease point to some form of chronic poisoning as being most concerned in its production, rather than to the direct action of a specific germ.

(c) This chronic poisoning depends on the elaboration in the system of certain toxins, which apparently may be the product of any general infection or local morbid condition.

(d) These toxins exert a peculiar and selective action upon the tissues of the joints and nervous system concurrently, and so produce the characteristic nervous phenomena and arthritis of the disease.

(e) There is a small residue of cases closely resembling rheumatoid disease, if not identical with it, which seem to depend wholly and directly upon some functional or organic disorder of the ner-

vous system, as so far they have not been or perhaps cannot be, traced to any source of infection.

TREATMENT.

In accordance with the views expressed, it follows that the treatment of rheumatoid arthritis must be conducted on the following lines:

1. *Discovery and Removal of the Source of Toxic Infection.*—Decayed teeth, ill fitting dental plates, chronic indigestion, uterine disease, etc., must be attended to.

2. *Elimination of Poisons from System.*—Great benefit is often derived from a long stay at the different thermal springs of this country and abroad. Where patients are obliged to stay at home, the simple expedient of drinking a glass of hot water on rising and at bed time, and one hour before meals does much good. Baths of superheated dry air, which cause very free diaphoresis and by powerfully stimulating all the functions of the body tone up the system, are also strongly recommended. The administration of medicines which check intestinal fermentation and are more or less antidotal to toxic products, may be given. Bannatyne relies as a matter of routine upon guaiacol carbonate. Each and all of such drugs may be tried.

3. *Repair of Ravages of Disease.*—(a) By liberal diet. Many of these patients, under the impression that all their trouble is caused by an excess of uric acid in the system, live on a very spare diet. This must be altered and as much food as they can perfectly digest be given. The writer has not seen that any particular form of diet makes appreciable difference. Some do well on what is practically vegetarianism, and others on the Salisbury treatment of meat and hot water. Bezley Thorne has greatly benefited a large number of patients by placing them on the diet appropriate for diabetes. (b) By administration of restorative and tonic medicines. Garrod strongly recommends the iodide of iron. (c) By exercises to strengthen and develop the atrophied muscles and extend the range of motion in the joints. Massage and Swedish movements given after inflammation has subsided and carefully abstaining from using excessive force are very useful for this purpose, especially when they follow the treatment by superheated dry air. Electricity may also be tried. (d) Surgical measures must at last be resorted to in the severe cases, to obtain movement in ankylosed limbs and for the correction of deformity. Unfortunately, the improvement gained by this means is not always permanent.

4. *The Relief of Pain.*—This is often extremely difficult to accomplish, especially at night, when it

seems impossible for the patient to find a comfortable position except for a short period, for in the severe cases all the joints, including the spine, are affected and cannot bear pressure. The application of heat by salt or sand bags; the use of liniments; blisters to the spine or cold applications, one measure after another must be tried until relief is obtained. As a last resort, drugs must be given. Spender gives small doses of opium for months together, guarding against headache and constipation.

As to prognosis, in the early stages much can be done to arrest the progress of the disease and even to bring about complete recovery. Later, it is very intractable to the different forms of treatment, but much can still be done to make the patient comfortable and prolong life to a good old age.

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- 33 WEST FORTY-SECOND STREET.

BIRTH PALSIES.*

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The obstetrician does not always take into consideration the accidents to the child which so frequently eventuate in serious and permanent palsies. These injuries are not always evident at birth; very frequently they do not receive attention until years after, and then at the hands of the neurologist, whose function is usually limited to making the diagnosis of a permanent and hopeless lesion.

A review of the histories of the cases occurring in the nervous clinics of the Jefferson Hospital and St. Joseph's Hospital points to the fact that birth palsies occur more frequently in the practice of the general practitioner than in the hospital and wards attended by professional obstetricians. The reasons, probably, are twofold; first, the character of the people among whom many of the general practitioners practise; and, secondly, the absence of both the opportunity and facilities for the exercise of skill.

Lesions of the brain, such as produce hemiplegias, microcephaly, porencephaly, and hydrocephalus—interesting as they may be from an ætiological and pathological point of view—I shall dismiss with but a few words of comment. It would seem, after a careful investigation from both physicians and mothers, of the histories of the deliveries, that the forceps was frequently used too late, rather than too soon. That prolonged pressure, such as often occurs in primiparæ, is more often the cause of this deplorable state than the improper use of the forceps, I am convinced. When a case of cerebral hemiplegia or cerebral diplegia is brought to the neurologist, it is too late to begin the treatment. As a rule, the condition is complicated by arrest of mental development, and the most that can be done is a tedious and only partially successful attempt at education and some training in the use of the paralyzed limbs. It is exceedingly probable that the lesion which causes this serious disease is originally one of hæmorrhage due to laceration of the veins of the pia mater just as they enter the longitudinal sinus, or a hæmorrhage from other sources. Under these circumstances, extensive extravasation of blood occurs, which is, as a rule, widely distributed over the convexity of the hemispheres. It would seem that, in every child in whom at birth there are present symptoms of asphyxiation following dystocia, and in whom there has been prolonged pressure and constriction of the head, it would be a justifiable procedure to make rapidly an opening

of moderate size upon either side in the parietal region. In such case the effused blood would escape or could be washed out by normal salt solution. Unconsciousness and coma are, as Dr. Harvey Cushing has shown, frequently, if not always, related to increased intracranial pressure, and I am informed that the procedure here recommended is one which Dr. Cushing himself advocates. It is exceedingly probable that by some such means much subsequent mischief could be prevented. After months and years have elapsed, after the brain tissue has become sclerosed, when cysts and porencephaly have become established, neither medicine nor surgery can offer hope of relief.

Erb's paralysis, or brachial palsy, which results from excessive traction or pressure upon the shoulder, involves, as a rule, the following muscles: the deltoid, the infraspinatus and supraspinatus, the teres minor, the biceps, the brachialis anticus, and the supinator. In some cases the fingers and the hand are involved. Erb, who describes this form of paralysis, which bears his name, makes mention of a "spot between the scaleni, corresponding to the sixth cervical nerve, at which electrical stimulation puts all these muscles in action." It is also a fact that Duchenne has exactly described this form of palsy, under the heading of *Paralysie obstétricale infantile du membre supérieur*. It is also often spoken of as the Erb-Duchenne form of palsy. Carter aptly describes this condition as follows:

"The palsy is characteristic, the affected arm falling motionless to the side of the body; the arm is likewise turned inward and extended; flexion of the forearm and raising of the arm is impossible, while the movements of the hand and the fingers are retained."

It is probable that this symptom group is related to injury of the outer cord of the brachial plexus. Marked atrophy of the muscles soon sets in, they no longer respond to faradaic stimulation and the reaction of degeneration is present. Subluxation of the head of the humerus is seen in some cases, owing to marked atrophy of the deltoid fibres.

Carter summarizes the causes of this condition as follows:

1. Pressure in the neck from the blade of the forceps, the finger, or hook.
2. Overextension of the arms.
3. Pressure in the axilla in extracting.

It can readily be understood that, even in spontaneous delivery of the head, when we assist the delivery by traction or by undue flexion from side to side, damage can be done to important structures in the neck. In overextension of the arms the greatest care should be exercised in bringing them down and holding them in position. It is well known that fracture and dislocation are produced in this way

and were at one time considered the sole cause of brachial palsy. In this form of delivery Carter asserts that the ultimate branches of the plexus (that is, the median, the musculospiral, and the ulnar nerves), and not the trunks, are the parts injured. Traction in the axilla should be assisted by expression. Even though no external evidence of injury can be detected in the axilla after delivery, paralysis was found to exist after a few days.

Experiments of Fieux and Shoemaker on the human subject, as well as on rabbits, prove that lateral flexion is the principal cause of the paralysis under consideration. These experiments prove that the danger point is reached whenever traction is made deviating either more or less from a point thirty degrees in the axis of the birth canal.

The following conclusions are the deductions of the result of his own experiments and of those of Fieux, are pertinent to the subject, and cannot, I believe, be improved upon.

CONCLUSIONS.

(1) In a spontaneous labor, one should not (in making traction upon the head), be in too great haste to deliver the trunk. The latter should be left to Nature, or should be helped by means of expression. Only in cases of necessity should traction upon the head be made, and even then the head should be flexed laterally only so much as is absolutely necessary to conform to the necessity in the case. If it is found necessary to hook the axilla, too great traction should not be made.

(2) During extraction by means of forceps, expression should be used as an assisting factor, presupposing that the shoulders meet with an obstacle at the entrance of the pelvis. One should remember Walcher's hanging position, and bring the forceps not far outside of the direction of the axis of the body. By this, however, is not meant that the slight pendulum movements sanctioned in textbooks should be omitted. Danger only arises when there is a deviation *from* thirty degrees, but a slight pendulum movement is not prohibited.

(3) During extraction by means of the feet, the arms should be quickly attended to, in case they are interfering, by means of Mauriceau's procedure, *i.e.*, by placing the finger in the mouth of the child and using the arm to assist in the traction, resorting in grave cases to expression, and, if necessary, to Walcher's position.

If the extraction of the head offers considerable difficulties, this may be considered as an indication for the application of the forceps to the aftercoming head, in order to avoid stretching the nerves of the axilla.

The treatment of brachial palsies may be both surgical and medical. The resulting palsy is some-

times so serious that the expedient of exposing the brachial plexus should be fully considered. It is not impossible that in some of these cases nerve strands are actually torn across. In such case, nerve suturing would be indicated. Whether it could be carried out in practice is a problem for the surgeons.

The treatment of a brachial palsy, when once established, resolves itself into the employment of massage and electricity. How limited the results are, is well known to all. In some cases, it is true, brachial palsies disappear more or less markedly, but this is not the rule when the condition is present in a typical degree. In this connection, it should be added that the arm should not be allowed to hang helpless at the side, but should be supported in a sling or a Velpeau bandage.

THE RESULTS OF BRAIN SURGERY IN EPILEPSY AND CONGENITAL MENTAL DEFECT.*

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Since surgical intervention is practised in epilepsy for the possible relief of conditions of certain types, and in idiocy and imbecility for the possible relief of certain conditions of other types, we can readily divide the subject into two parts, taking up epilepsy first. The limit on time requires that both be treated in greatly abridged form.

THE TYPE OF EPILEPSY PROPOSED FOR SURGICAL TREATMENT SHOULD BE SPECIFIED.

Used without qualification, the word "epilepsy" carries little meaning to the analytical student of the disease. So varied is its ætiology, and so numerous are its types, that the synthetical designation of "epilepsy," only, has but little value.

In some epilepsies medical treatment promises most, in others surgical; and it is well to differentiate the cases of each at the outset, doing this broadly if not specifically, always reserving, however, specific distinctions before undertaking the surgical treatment of any particular case.

We may first lay down this general rule: The epilepsies that most seriously impair the con-

* Read before the fifty-ninth annual meeting of the American Medical Association, held at St. Louis, Mo., June 12, 13, 14 and 15, 1903.

scious operations of the mind are less amenable to treatment by the surgeon than the epilepsies that leave the mind most largely unaffected.

There is a vast difference between fits of different types in the degree in which they affect the mind. Some blot it out in a flash, completely and instantaneously, others blot it out gradually, others impair it in various degrees without affecting its complete destruction at any time during the fit, while still others do not even disturb it in an appreciable degree, the latter being the case with the milder monospasms, Jacksonian in character.

This being true, we first single out the epilepsies that mostly affect the motor side of the body as promising most for surgical treatment, to the exclusion of those that invade the psychical side to the greatest degree.

I may illustrate this by saying that in *grand mal* convulsions, in which consciousness is destroyed through the intensity of the "explosive discharge" or through the sudden "snapping of restraint" in the motor zones, surgical measures are far more rational than when the attacks, being psychical, are silent in form, causing no commotion in the muscular system and no change in body posture.

Operations for the possible relief of epilepsy should be confined to cases in which the attacks are of *grand mal* or Jacksonian type, and will seldom be found of any use in the *petit mal* or psychic types.

This takes no account of partial, reflex, or other rudimentary forms of the disease, many of which are well adapted to surgical treatment, being due as they are to such causes as old cicatrices, an adherent prepuce, foreign growths in the nose, middle ear disease, and other peripheral organic conditions, including recent injuries to the brain in which the early repair of the damage removes the cause of the attacks.

RESULTS OF BRAIN SURGERY IN 33 CASES OF EPILEPSY.

The types of epilepsy in which surgical intervention is oftenest a rational proceeding comprise the bulk of all the epilepsies. In 1,325 cases that have come under my observation during the past eight years, 774 were *grand mal* and 9 Jacksonian; together a little over 60 per cent. of the gross number. I do not wish to be understood as stating that 60 per cent., or over, are subjects for surgical treatment; I mean that it is among 60 per cent. only that some cases will be found that surgery may benefit.

Before operating in any case, the patient should be carefully watched so that the exact order of invasion, the precise manner in which the fit be-

gins, the manner in which it extends, involving one group of muscles, one part of the body after the other, should be carefully observed on repeated occasions, together with the nature, frequency, and recurrence of the aura; for all these constitute valuable signs that help to guide us to the cerebral seat of the disease. The study of such symptoms to their full advantage demands a knowledge of cerebral localization we cannot, either as epileptologists or as surgeons, fail to acquire.

We can form, in a measure, some idea of the value of brain surgery in epilepsy by noting the results in the 33 cases I present at this time. All of them have been under my daily observation for periods varying from one to eight years. Five of these operations were performed at the colony in cases selected with great care. The remaining 28 patients were operated on prior to their admission:

CASE 1.—Male, aged twenty-nine years. Family history negative. Epilepsy began at seventeen years of age. Supposed to be caused by malaria. Trephined October, 1895, six years after the first seizure. Result; no improvement.

CASE 2.—Male, aged thirty-one years. Father tuberculous; otherwise family history negative. Epilepsy began at thirteen years of age. Supposed to be caused by trauma in head. Trephined in August, 1894. Right motor region. Operation eleven years after the onset of the epilepsy. Result; no improvement.

CASE 3.—Male, aged twenty-two years. Family history negative. Epilepsy began at fifteen years of age. No assigned cause. Patient grew steadily worse, and had as many as 24 attacks daily. Trephined in October, 1897, three years after the onset of the epilepsy. Since the operation the attacks have been less frequent but more severe. Trephined again at the Craig Colony in April, 1900. His attacks had been growing steadily worse. A portion of thickened and adherent dura was removed. Since the last operation his attacks have been markedly lessened in frequency. On large doses of bromides ever since the operation. Result; great decrease in frequency and severity of attacks.

CASE 4.—Male, aged thirty-one years. Mother's father insane and syphilitic. Mother's sister committed suicide. Brother and sister died in convulsions. Paternal relatives intemperate. Epilepsy began at seventeen years of age. Supposed cause, injury to the head when seven years old. Trephined eight years after the onset of the epilepsy. Result; no improvement.

CASE 5.—Male, aged thirty-eight years. Maternal grandmother had epilepsy. Assigned cause of epilepsy, heredity. Trephined over the left motor region in 1893, fifteen years after the onset of the epilepsy. Result; slight temporary benefit.

CASE 6.—Male, aged eight years. Family history negative. Epilepsy began at three years of

age. Supposed to be due to a fall on the head. Two months after the fall he had the first attack. Attacks increased in frequency, and at the age of five years he was having 50 attacks a day. Two years after the injury he was trephined over the right motor region. Since the operation he has had no attacks during the daytime. Result; decrease in number of attacks.

CASE 7.—Male, aged thirty years. Mother rheumatic. Father inebriate and died of tuberculosis. Epilepsy began at twenty-one years of age. Assigned cause, injury to left side of head. Was run over by a wagon. Two weeks later he had the first attack. Attacks at first, three or four daily. One week after the first attack he was trephined. Since the operation his attacks have been about twenty each month. Result; no improvement.

CASE 8.—Male, aged nineteen years. Family history negative. Epilepsy began at eleven years of age. Was struck on the head with a bale stick and had a severe convulsion half an hour after. Second attack occurred one month later and then they occurred with increasing frequency. Trephined in 1896, three years after injury. No benefit as result of the operation. In April, 1900, he was trephined again at the Craig Colony. This time the opening was made over the left parietal bone, as this was the side injured. (The first operation was performed on the right side.) No adhesions nor gross pathological changes were exposed. He has about four *grand mal* attacks each month at present. Result; no improvement.

CASE 9.—Male, aged twenty years. Family history negative. Epilepsy began at seven years of age. Supposed to be due to an injury to his head, which occurred when he was three years old. Trephined in February, 1899, sixteen years later. Attacks at first were all psychical, but gradually have changed to the *grand mal* type. Result; no improvement.

CASE 10.—Male, aged twenty years. Mother, maternal grandmother, and aunt died of tuberculosis. Epilepsy began at age of twelve years. Assigned cause, a penetrating wound of the skull, caused by a nail when eight years old. Four years after the injury he had the first attack. Trephined over the left parietal region in 1899. Trephined again at the Craig Colony in November, 1900, over the same area as first operation. Thickened dura removed and gold foil inserted. Result; no improvement.

CASE 11.—Male, aged thirty-six years. Father inebriate. Maternal uncle and aunt insane. Mother and grandmother had heart disease. Epilepsy began at thirty-four years of age. Supposed to be due to trauma to head at the age of twenty-three years. Says that he had a fracture of the skull at that time. In July, 1898, he fell from a ladder and had a convulsion twelve hours later. Since then he has had attacks every six weeks. In September, 1899, he was trephined over the left frontal region, at the Presbyterian Hospital, New York. Six weeks after the operation he had another attack. In March, 1901, he was placed on bromide treatment and during the six months

since that time he has had no attacks. Result; temporary improvement, probably not due to operation.

CASE 12.—R. J. McC. Male, aged eleven years. Mother neurotic. Maternal grandmother had two strokes of paralysis. Epilepsy began at eight years of age. In January, 1898, he fell eight feet from a shed and struck the right side of his head. Had a convulsion the same day he received the accident. In April, 1900, over two years after the accident, he was trephined over the right side of the head at the seat of the injury. Result; no improvement.

CASE 13.—J. S. Male, aged thirty-one years. Nothing known of family history. Epilepsy began at age of nineteen years. Supposed cause, yellow fever, contracted in Brazil, in 1891. Shortly after this he had the first convulsion. In 1893 he was trephined over the right frontal region two years after the onset of the epilepsy. Result; no improvement; attacks more frequent after operation.

CASE 14.—W. F. C. Male, aged twenty years. Family history negative. Epilepsy began at age of fifteen years. At age of five years he was pushed off a wagon and injured his spine. Had first attack one month after the injury. In 1897 he fell from an engine, and remained unconscious for some time. In September, 1900, was trephined, four years after the onset of the disease. Result; no improvement.

CASE 15.—E. K. Male, aged fifteen years. Family history negative. Epilepsy began at six years of age. Assigned cause, trauma. He was hit on the head with a shovel about one month before the first attack. Had attacks every two or three days. In January, 1901, he was trephined over the site of the injury. Operation nine years after the injury. Since the operation the attacks have been more frequent and severe. Result; no improvement; disease exaggerated.

CASE 16.—J. M. P. Male, aged nineteen years. Family history negative. At age of six years he was struck on the head by a train. Eight years after he had the first convulsion, and he has had them about every ten days since. In January, 1900, he was trephined over the site of the injury. Operation four years after the onset of the disease. Attacks have been worse since the operation. Result; no improvement; disease exaggerated.

CASE 17.—Male, aged twenty-nine years. Family history negative. Epilepsy began at age of twenty-one years. In October, 1893, he was thrown from a wagon and struck on back of his head. Two years later he was trephined, and following the operation he remained free from seizures for four months. In February, 1901, he was trephined again and more bone removed. Has had severe pains in head since the last operation. Result; no improvement.

CASE 18.—N. W. Female, aged twenty years. Family history negative. Epilepsy began at age of thirteen years. Fifteen months prior to the first seizure she fell on the ice and struck on the

right side of the skull. In November, 1894, she was trephined over the left motor area. During the five months following the operation she had no seizures. Attacks at present four or five a month. Result; no permanent improvement; some temporary.

CASE 19.—C. M. S. Female, aged twenty-seven years. Family history: Paternal great grandfather and grandfather died insane. Two maternal aunts epileptic. Father inebriate. Maternal uncle died insane. Mother has been epileptic since sixteen years of age. Patient's epilepsy began at age of eleven years. Assigned cause, heredity. At the age of twenty years she was trephined over the motor region on the left side. Operation nine years after the onset of the disease. Had no attacks for one year following the operation. Since that time the attacks have returned. Result; no permanent improvement.

CASE 20.—J. D. R. Male, aged thirty-eight years. Family history negative. Epilepsy began at twenty-seven years of age. Assigned cause, injury to head by being caught between two ice wagons. Eight years after the onset of the epilepsy he was trephined over the right Rolandic region. Result; no improvement.

CASE 21.—S. S. M. Male, aged twenty-two years. Family history unknown, except that all (?) paternal relatives were intemperate. Epilepsy began at eleven years of age. Supposed to be due to injury to the head by kick from a horse. He was trephined over the seat of the injury and the dura found thickened. Result; no improvement.

CASE 22.—Female, aged eight years. Father intemperate. Epilepsy began at age of two years, following an infantile cerebral palsy, which was the cause of her epilepsy. At age of four years she was trephined. Skull very thick. Operation two years after the onset of the epilepsy. Result; no improvement.

CASE 23.—Female, aged thirty-eight years. Family history unknown. Epilepsy began at age of eight years. At age of eight years she fell down stairs and was also injured by a runaway horse. She had spasms immediately following the latter accident, and remained in an unconscious condition for three days. She was trephined over the left parietal bone three days after the injury. The convulsions continued with varying frequency until she was thirteen years old, when she had immunity from them until thirty years of age. At age of thirty years the spasms appeared again, and she has had them at various times until April, 1900. During April, 1900, she was operated upon for a cystic uterus. The uterus was removed with the appendages. There was an imperforate cervix and the uterus had become a retention cyst. She made an uninterrupted recovery from the operation, and since that time she has had no return of the convulsions. Result; no attacks for five years; cure probable.

CASE 24.—F. F. Female, aged nine years. Family history unknown. Epilepsy began at age of three years. No assigned cause. At age of six years she was trephined over the left parietal region. Result; no improvement.

CASE 25.—A. S.; letter carrier. G. M. Onset at thirty-two years of age. Multiple sclerosis. Trephined June, 1901; left parietal region, Syracuse. Result; no improvement.

CASE 26.—S. V., aged twenty years. No occupation. Epilepsy of six years' duration. Has right hemiplegia. Jacksonian type. Trephined by Dr. Gerster at Mt. Sinai Hospital, November 18, 1901. $2\frac{1}{2}$ " x $2\frac{1}{2}$ " of bone removed. Result; no improvement.

CASE 27.—G. D. B., forty years of age. Laborer, married. Onset at thirty-nine years of age. Family history negative. Cause, *grand mal* and *petit mal* attacks frequently. Right arm and leg most frequently affected. Trephined in Syracuse. Attacks occurred again twelve days after operation. Operation six months after injury to head by falling stove pipe. Result; no improvement.

CASE 28.—W. B., ten years of age. Family history negative. Epilepsy for nine years. Right hemiplegia. *Grand mal* attacks beginning in right face, right arm, and leg. May 7, 1902, operated on at colony. Result; no improvement in epilepsy.

CASE 29.—J. A. S., twenty-nine years of age. *Grand mal* for twenty-five years, following typhoid. Paralysis of left arm. Trephined at Massachusetts General Hospital seven years before admission. Result; no improvement.

CASE 30.—W. B., sixteen years of age. Onset at two years. Cause, *petit mal* and *grand mal*. Attacks began in left hand, extending to left arm, face, and head, then to left leg. Trephined June 7, 1902, at colony. No marked pathological condition found at operation. Result; no improvement.

CASE 31.—J. O. P. Admitted September 12, 1902; aged sixteen years. At age of seven years received a fracture of skull; was afterwards trephined. Epilepsy developed two years after injury. *Grand mal*. No heredity. No paralysis. Two or three attacks a month. Result; no improvement.

CASE 32.—C. E. E., aged twenty-six years. Admitted February 24, 1903. Epilepsy for fourteen years, following traumatism to head. *Grand mal*. Paralysis of right arm and leg and left side of face. Trephined in Syracuse in 1899. Seizures more frequent after operation. Result; no improvement.

CASE 33.—L. G., aged twenty-one years of age. Admitted April 29, 1903. Epilepsy five years' duration. Cause, blow on the head by a pitch fork. *Grand mal*. No paralysis. Trephined over right motor area previous to admission. No definite history of the operation. Result; no improvement; patient an imbecile.

Twenty out of the 33 cases cited above were due to trauma of the head. The average duration of the epilepsy before the operation was approximately five years and a half, being sixteen years in one case and three days in another.

The results, noted in no case less than eleven months after the operation and in most of them several years after, were as follows:

In 21, no improvement in the disease, either temporary or permanent.

In 8, the attacks were lessened in frequency and severity, the operation being a part of the treatment, only.

In 3, the disease was much worse after the operation.

In 1, apparent recovery; the patient in this case was a woman whose first convulsions appeared after a severe head injury in her eighth year, caused by falling down stairs. She was trephined three days after the injury, while the convulsions continued five years longer, disappearing when she was thirteen, to recur at thirty. Some years later, when she was admitted to the Craig Colony, her uterus, being a retention cyst, was removed with all appendages, the result now being no attacks since the operation, a period of five years. In this case the operation on the brain did not relieve the convulsions, the relief was due to the removal of a cause that periodically produced a form of autointoxication. The retained menstrual discharge was a systemic poison.

Twenty-eight of the 33 cases were males. Twelve of these had good family histories, 10 had not, while in 6 the family history could not be ascertained.

Of the 5 women, 2 had good family histories, 2 had not, while one was unknown.

It is worthy of note that none died as the result of the operation. Similar treatment of idiocy is attended with a comparatively high rate of mortality—fully 20 per cent., as we shall see later.

CASES OPERATED ON AT THE CRAIG COLONY.

Seizure Records.

CASE 1.—Operated on, April, 1900.			CASE 2.—Operated on, April, 1900.		
	1900.	1901.		1900.	1901.
January . . .	559	1	January	3	4
February . . .	136	3	February	1	2
March	131	3	March	7	1
April	205	1	April	13	3
May	14	2	May	1	3
June	0	0	June	11	2
July	3	2	July	1	3
August	0	4	August	1	1
September . . .	0	7	September	6	6
October	0	7	October	1	8
November	0	1	November	5	3
December	3	0	December	4	4
Total	1,051	31	Total	54	40

CASE 3.—Operated on, November 25, 1900.			CASE 4.—Operated on, May 7, 1902.		
	1900.	1901.		1902.	1903.
January	12	4	January		5
February	14	5	February		11
March	31	6	March		3
April	13	2	April	2	3
May	10	3	May	4	
June	16	6	June	2	
July	0	4	July	5	
August	0	11	August	1	
September	5	14	September	2	

¹ Cases 1, 2, 3 reprinted from *Operative Interference in Epilepsy*, by R. E. Doran, *Obstetrical Medical Annals*, December, 1902.

October	10	October	2
November	2	November	4
December	0	December	0
Total	125		86

We have no accurate information regarding the seizures in Case 4 before admission, and are unable to compare the number of attacks before operation with those occurring afterward.

CASE 5.—Operated on, June 7, 1902.

	1902.	1903.
January	10	25
February	11	1
March	208	75
April	5	2
May	0	
June	5	
July	13	
August	7	
September	2	
October	7	
November	10	
December	18	

(The large number of seizures in the last case in March, 1902, was due to status epilepticus.)

Concisely summed up, the results in the 5 cases operated on at the colony were as follows:

In CASE 1.—During the four months preceding the operation there were 1031 attacks. During the four months following there were 17 only, while during the twenty months following the operation there were 51 attacks.

In CASE 2.—During four months preceding the operation there were 24 attacks. During the four months following, 14; this ratio of decrease keeping about the same thereafter.

In CASE 3.—During eleven months preceding operation there were 125 attacks. During the eleven months following, 66.

In CASE 4.—Number of attacks before operation unknown. During twelve months following there were 45.

In CASE 5.—During five months preceding operation there were 242. During the five months following, 54; while during ten months following there were 193.

It will thus be seen that absolute cure did not result in any case, while improvement followed one in four—25 per cent. It should be stated that the five cases detailed were all reoperations, the first operation having been performed before the patient entered the colony. It should also be stated that all the apparent improvement should not be laid to the results of surgery, for all the patients were kept rigorously under a definite general treatment, especially under the suppressive effects of the bromides.

The marked improvement in Case 1 was attributed as much to the after treatment as to the operation itself. The importance of doing this is clearly pointed out by Roswell Park in this statement:

"Operation, when indicated and undertaken, should be regarded as a first measure to be fol-

lowed, and often preceded, by others looking to a correction of all faults of diet, elimination, etc. Long continued attention to these matters is the price of success."

This has long been our doctrine, and how true it is can only be appreciated by those who have watched through many years a large number of cases subjected to the knife, the chisel, and the saw. Surgeons, as well as neurologists, are apt to advise operation in nontraumatic cases presenting distinct localizing phenomena. In many cases of this kind operation will prove useless, from the fact that while *diffuse cortical conditions* (three words I would like to emphasize) productive of epilepsy, may have a central point of greatest initial discharge, it is too diffuse by far for the knife to remove.

Roswell Park³ credits Matthiolus with collecting 258 cases of Jacksonian epilepsy subjects of craniotomy, the results being, "some 20 per cent. were reported as cured, though only 10 of the entire number had been followed for over three years, and only 18 of them for over a year. Of the others, 15 per cent. were reported improved, while in 56 per cent. there was no improvement; 13 per cent. died."

Braun collected 30 cases due to trauma, in which Horsley's plan of excision of the affected cortical area was carried out; 13 of them were reported as recovered, 9 improved, and 8 unimproved. Of the 13 reported as recovered, only 3 were followed for three years, a fact that must vitiate any claim so striking as this one appears to be.

Kocher regards the methods of electrically locating the area to be excised, in the manner advised by Horsley, not sufficiently accurate always to reach the seat of the disease.

Broca and Manbrac credit Ferrier with reporting a total of 21 cases of partial epilepsy operated on, with 12 recoveries, 6 ameliorations, and 3 negative results; adding, "it must be remembered that such observations are often published before six months have elapsed." They add that recoveries are not rare, and that the relief of headache and attenuation of the severity of the attacks, which means a great deal, is at times attained.

In 1893 Starr reported 13 cases operated on, with 3 cures; but three years later admitted that the cases reported as cured were reported too early.

Gowers believes that trephining in idiopathic epilepsy is never justifiable.

It is unfortunate, on the whole, that so little help can be gained from statistics; not that they are essentially unreliable, but because the view point of those who make them is often so widely different.

There is also often failure to specify the type of epilepsy in which the operation is done, the comparison of statistics being consequently impaired. Another thing that creates confusion is the lack of any rule or uniformity in the length of time that should elapse before results are announced. Bergmann rather caustically remarks that this is sometimes done "before the wound heals."

It is difficult to fix a time limit in this respect. Such limit, in our opinion, should be regulated in a measure by the type of epilepsy operated on—the cause likewise being considered. As a general rule, it should not be less than two to three years in any case, while in all cases possible observations should be kept up after that. If we accept two, or even three, years as the period that should elapse after the operation before results are reported, the ratio of recoveries from epilepsy under brain surgery will be disappointingly small.

(To be concluded.)

SOME ANATOMICAL VARIETIES OF INGUINAL HERNIA.

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The object of this paper is to present a few cases illustrating some anatomical varieties of inguinal hernia, in the hope of elucidating especially practical points in the anatomy barely considered by American and English works on surgery.

The testicle in the foetus, as is well known, is an abdominal organ located behind the peritonæum, immediately below the kidneys. During the seventh month this organ descends into the scrotum, dragging with it the peritonæum. A diverticulum of the peritoneal cavity results, extending down into the scrotum, while the testicle and cord remain retroperitoneal. The anatomical variety of hernia met with later in life depends upon the fate of this foetal condition.

Normally, the lower end of this peritoneal pouch remains as the tunica vaginalis testis, while the upper end atrophies, leaving no trace behind, and the cord runs through cellular tissue from the testicle to the retroperitoneal tissue of the abdomen (Fig. 1). In some cases, however, the foetal diverticulum does not close, but remains in the primordial condition, with the cavity of the tunica vaginalis, continuous with the general peritoneal cavity. The cord and testicles are retroperitoneal throughout their entire extent (Fig. 2). Other cases show an abortive attempt at closing this canal (Fig. 3).

Above the tunica vaginalis the canal may be closed but the wall remains as a cord intimately connected with the spermatic cord, terminating below in the tunica vaginalis, and above in a diverticulum from the abdominal cavity (Fig. 4). In other cases the cul de sac may be closed at the internal abdominal ring and open throughout its entire extent below this point, forming an exceedingly large sac of the tunica vaginalis testis (Fig. 5).

These four conditions are responsible for as many varieties of inguinal hernia, and should be remembered when surgical interference is indicated, as certain steps of the operation differ according to the variety of hernia we are dealing with.

Acquired Hernia (Fig. 1) occurs under normal conditions; that is, in conjunction with complete obliteration of the upper part of the diverticulum. In this variety the peritonæum of the abdominal cavity is forced through the inguinal canal to the scrotum. The sac is not intimately connected with the cord or tunica vaginalis and may be taken up without disturbing either of these structures.

Congenital Hernia (Fig. 2) exists when the tunica vaginalis remains patent as a diverticulum of the peritoneal cavity, and the intestines descend into the open pouch. The cord and testicles, in these cases are retroperitoneal and intimately connected with

Congenital Funicular Hernia (Fig. 3) exists when the middle of the canal is closed but not obliterated. The upper part is similar to the condition found in a congenital hernia; and though closed lower down the walls still exist and are united with the vas deferens into a common cord. Still lower the cul-de-sac exists as the cavity of the tunica vaginalis. The intestines descend through the congenital canal until the obstruction is reached, then push the peritonæum before them into the scrotum, forming a sac parallel with the tunica vaginalis.

Attempts at isolating the sac in this condition



FIG. 1.—Showing the closure of the lower portion of the fetal diverticulum, the upper portion atrophied. In acquired hernia a fresh portion of peritonæum is pushed down, forming the hernial sac.



FIG. 2.—Showing the non-closure of the fetal peritoneal diverticulum, leaving a natural sac, into which a congenital hernia may protrude.

the walls of the cul de sac. If this diverticulum is mistaken for the sac of an acquired hernia and an attempt is made to isolate it, the testicle and cord will be dissected from their bed and brought out with the sac. This accident occurred in one case coming under my observation, and was attended with atrophy of the testicle.

A congenital hernia is not necessarily one that has existed from birth. In one of the cases to be described later the condition developed suddenly in a soldier who had previously undergone a rigid physical examination without evidencing the slightest manifestation of an impending rupture. At that time, however, the sac was probably present, but so small as to escape detection and to preclude intestinal ingress.

will result as in the previous case, in dissecting out both the cord and the testicle.

Infantile or Encysted Hernia (Fig. 4) results when a pouch of peritonæum from the abdominal cavity is pushed down into an abnormally large cavity of the tunica vaginalis. This condition is caused by closure of the congenital canal at the internal ring, while the lower part remains patent. In operating for this condition the cavity of the tunica vaginalis must first be opened and the opposite wall cut through before reaching the hernia sac; that is three layers of peritonæum must be incised before reaching the intestines.

The management of the sac depends upon the condition found. After it has been opened and its contents returned to the abdominal cavity it becomes essential to determine accurately the anatomical

diagnosis of the case. If it is an acquired hernia, the sac is lifted from its bed, freed from adhesions, especially at the external abdominal ring, the finger inserted as far as the internal ring to prevent prolapse of the intestines and the sac transfixed to prevent slipping of the sutures; it is then ligated and excised as high up as possible.

If dealing with a congenital hernia the procedure is entirely different. The diverticulum is cut through above the testicle and the incised edges sewed together or tied like the mouth of a bag, forming a new tunica vaginalis. The rest of the cul-de-

Regarding the relative frequency of congenital and acquired hernias, I find but little in the literature to which I have access. In a limited experience, one of the forms of congenital hernia has occurred approximately in a fourth of all cases.

Coley, in an analysis of 1500 adults treated at the Hospital for Ruptured and Crippled in New York, found that one-third of the cases had hernia during infancy. It may, therefore, not be amiss to expect one case of congenital hernia in every three or four operated on.

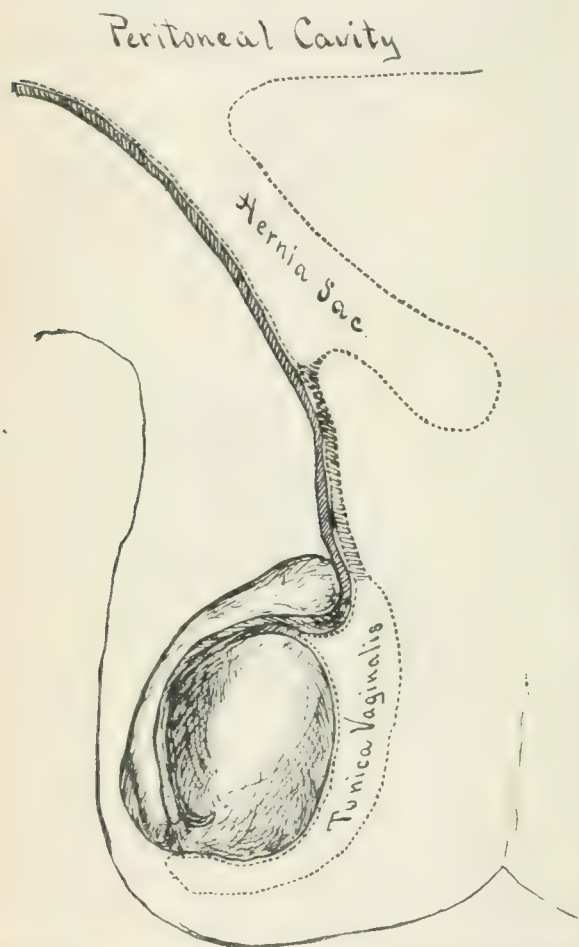


FIG. 3. An abortive attempt at closure of the fetal peritoneal diverticulum; in this condition congenital funicular hernia occurs.

sac is dissected free from the cord, which can only be accomplished with considerable difficulty, on account of their intimate relation. Then the sac is ligated and excised as in the previous case.

The sac of a funicular hernia is managed in practically the same way as that of a congenital hernia. The obliterated part of the canal is cut across above the tunica vaginalis, while the upper part is dissected free from the cord, ligated and excised.

The sac of an infantile hernia is excised in practically the same way as that of an acquired, while the enlarged tunica vaginalis is pressed down into the scrotum.

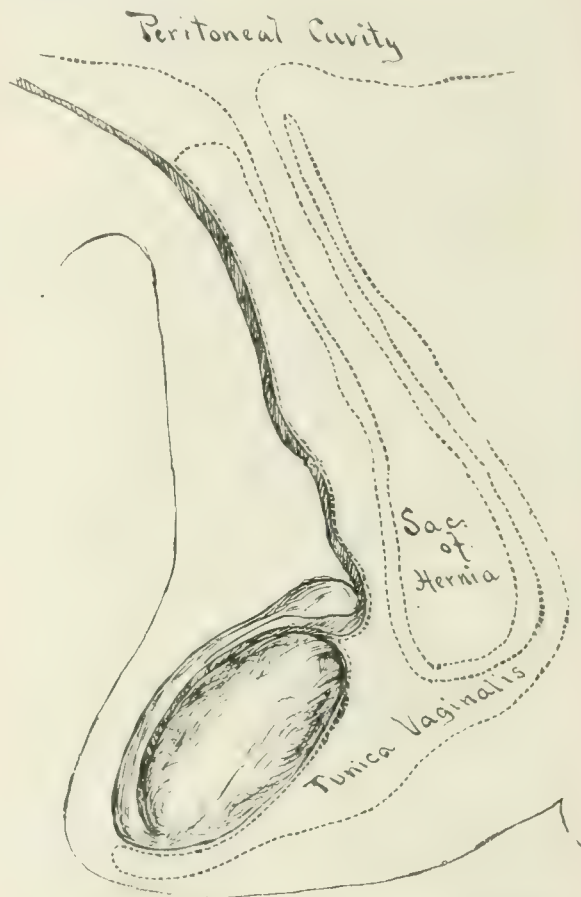


FIG. 1. The tunica vaginalis closed, but the wall remaining as a cord intimately connected with the spermatic cord, terminating below in the tunica vaginalis, and above in a diverticulum from the abdominal cavity. In this condition infantile encysted hernia results.

A case of congenital hernia may be illustrated by the following taken from my records, at the Military Hospital, San Isidro, P. I.:

CASE I.—I. W., Priv. Troop "M," Third U. S. Cav., 11-8-99. Diagnosis, Congenital testicular left oblique inguinal hernia (see Fig. 2).

The patient asserts that hernia appeared for the first time immediately after receiving an injury by the pommel of his saddle three weeks previously. Examination disclosed a reducible hernia descending into the scrotum on the left side. On operating, the hernial sac was found to be of the congenital variety, containing omentum which had descended into the cavity of the tunica vaginalis. The sac was ligated, cut across above the testicle, and

the lower part left behind as the tunica vaginalis. The upper part was isolated from the cord and excised. The inguinal was closed by Bassini's method and recovery proved uneventful. This is a case of congenital hernia showing first in adult life. Doubtless the sac had always been present, but none of the abdominal organs had previously entered it.

The following is illustrative of funicular inguinal hernia:

CASE II.—W. M., aged thirty years. Diagnosis, right oblique complete congenital funicular inguinal hernia (see Fig. 3). A small rupture had been present for many years. The patient could not recall its first appearance. It had never descended into the scrotum and was reducible. Upon operation, the sac was found to be of the congenital variety and in-



FIG. 5. Showing the cul-de-sac closed at the internal abdominal ring, and open throughout its entire extent below this point. This was the condition existing in Case III.

timately connected with the cord, but occluded a short distance above the testicle, so that the pouch did not communicate with the tunica vaginalis. The obliterated part of the canal was cut across, and the sac dissected free from the cord, ligated, and excised. The wound was closed by Bassini's method and recovery ensued.

The following case of hydrocele of the cord developed from a cured infantile hernia may be of interest:

CASE III.—Military Hospital, Calamba, P. I., April 10, 1900. B. L., Private 39th Infantry (Fig.

5). While loading a wagon, three days before entering the hospital, the patient experienced a sudden pain in the left inguinal region, and noticed a swelling which gradually increased in size. Examination showed a tumor about the size of a small egg in the upper part of the scrotum. There was no impulse on coughing, but extending from the tumor up through the inguinal canal was a cord fully as large as a lead pencil. This was not connected with the spermatic cord. A diagnosis of irreducible omental hernia was made and the patient was operated upon. On cutting through the peritoneal covering of the tumor a closed sac was found containing fluid; and hanging from the top of this another sac about the size of a marble, presenting every characteristic of the first. The diagram illustrates what had happened. The patient had had an infantile hernia, but the sac having become closed had remained in the inguinal canal as a solid cord. The lower end contained a small quantity of fluid. The enlarged tunica vaginalis, into which the hernia originally descended, had become obstructed in the middle. The lower portion formed a normal tunica vaginalis; the upper, about the lower end of the hernial pouch, remained patent and produced a hydrocele of the cord. The sudden onset of the trouble cannot be explained.

THE ÆTIOLOGY AND TREATMENT OF SUBACUTE AND CHRONIC CATARRHAL AFFECTIONS OF THE UPPER AIR PASSAGES IN CHILDREN.*

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By catarrh, I mean some inflammatory condition of the mucous membrane (Gould's *Dictionary of Medicine*), my remarks being limited to the subacute and chronic forms. The mildly acute, being self-limited, are usually self-curative; those caused by infectious agents, such as diphtheria, require treatment for the specific malady causing them.

Subacute and chronic affections of the pharynx, and often of the larynx and trachea, when not dependent upon diseases in the chest, are largely of nasal causation. Consequently, the nose must first require our attention.

It is essential that nasal respiration be performed normally for perfect physiological results; therefore, the anatomical features are of importance.

Last year, in a symposium on the subject of adenoids, I called your attention to the histology and pathology of the pharyngeal and lingual tonsils; I now want to start from that point and, with normal nasal respiration as an axiom, first mention the factors interfering with its performance. You well know the facies peculiar to nasal obstruction; the open, or partially open, mouth, receding jaw, inexpressive face, and anatomically the highly arched palate, with

* Read before the El Paso County (Colorado) Medical Society, March 1, 1900.

nostrils usually too narrow, and frequently still more obstructed by deviated *sæpta* and altered secretions.

For illustration, let us assume the case of a child having an interference with nasal respiration, causing intermittent or continual mouth breathing. Mouth breathing in a child will prevent the arch of the hard palate and the nasal chambers from widening, in consequence of non-development of the nostrils from disuse; this disuse induces enlargement of the turbinal tissues, and subsequently cell infiltration; abnormal turbinal tissue occludes and exerts pressure upon the *sæptal* partition, with the result that the development of the *sæptum* impeded by the inability of the hard palate to flatten out, so encroaches upon the vertical area, that the *sæptal* cartilage is moulded in ridges to accommodate itself to the space, thus still more occluding the lumen; or, should one nostril be more stenosed than its fellow, breathing will be more largely carried on upon the larger side, which nostril will develop and its fellow remain undeveloped as to size, thereby continuing the stenosis until secondary atrophy occurs, which by shrinking and destroying much glandular tissue, gives the nostril more lumen. However, as this usually takes place too late in childhood or early adult life for respiratory equilibrium between the two nostrils to be established, we find various deflections of the *sæptum*, known as ridges and spurs, which require removal to allow of normal respiration, and proper drainage.

Talbot (*Deformities of the Face, etc., Laryngoscope*, Vol. xii, p. 426) takes the view that these facial defects are largely developmental. "At birth," he says, "the nasal cavities are not even developed. If one side be larger than the other, more air will pass through one side than the other. If the two sides are nearly even, the amount of air will be about uniformly distributed; this, however, is not always the case.

"Deflection of the *sæptum* depends upon the walls of the nose and turbinates. The walls of the nose and turbinates ossify before the *sæptum*, hence the *sæptum* must adopt itself to the location of these bones. The position of the vomer depends upon the walls of the nasal cavities; and the size and shape of the turbinate bones. These may be excessively developed or arrested in their development.

"The vomer calcifying later in life, stimulated by the air inhaled and exhaled, develops the cartilage and moulds it into a centre equidistant between the turbinates. Mouth breathing, then, is due to arrest of the nasal cavities and bones; and excessive development of the turbinates and mucous membrane. This, together with adenoids, is the result of an unstable nervous system."

On the other hand, Collier (*Nasal Obstruction and Deformities of the Upper Jaw, Teeth, and Palate*, by Mayo Collier, *Lancet*, October 18, 1902, abstracted in *Philadelphia Medical Journal*, November 8, 1902) alleges, in the first place, that in impeded respiration there is a difference in the pressure on the outside of the young and growing skull, which alters the curve of the upper jaw, and the shape of the face and palate. It is shown that in young animals the nasal cavities of which have been obstructed for the purpose of scientific observation, a profound alteration takes place in the development of the upper jaw, and a marked alteration in the curves of the alveolar arch, and in the position and height of the palate.

Collier believes that heredity has nothing to do with these changes, as shown by the fact that they are not present in infancy, but take place later on in youth. The effect upon the bone is produced by the passage of air through the mouth, which abstracts the contents of the nasal chambers and so produces increased pressure of the nasal box. This increased pressure not only pushes up and elevates the hard and soft palate, but squeezes and approximates the halves of the upper jaw, thus impeding its development. Professor Ziem, in his experiment upon animals, has shown the truth of this explanation.

My opinion is more in accord with the observations of Collier, believing that nasal respiration is absolutely necessary for the perfect development of the nasal cavity. I cannot accept the ideas of Talbot, that an unstable nervous system is the cause or that the defects are largely developmental. It must, however, be admitted that heredity plays some part, for types of face and form are surely transmitted; not only is this shown in the breeding of all animals, particularly of the domesticated families, in which breeding for special characteristics has been carried on for centuries, but, historically, we have many illustrations amongst the old world's nobility of the transmission of facial characteristics. The Hapsburg lip is probably more frequently alluded to than any other.

From improper nasal respiration, we shall notice an alteration in the function of the secretions of the nostrils.

I recall a discussion some years ago as to how much liquid is secreted by the mucous membrane of the nose in health. The veteran Bosworth, of New York, came out with the statement that this membrane secreted in twenty-four hours about one pint. This secretion supplies moisture to the respired air; by virtue of this moisture, the air is more readily warmed, thus

becoming less irritating to the larynx, bronchi, and lung cells. The remaining secretion flows backward into the pharynx, and with the saliva is swallowed, keeping the nose, pharynx, and the walls of the œsophagus, lubricated.

It is probably a question how much secretion, if any, pours from the nose into the pharynx in health, the bulk of the moisture, most likely being taken up by the respired air.

Prophylaxis.—A very common occurrence is to allow children who have more or less constant discharge from the nostrils, particularly children from three to five years of age, to go untreated; for a discharge means something inflammatory, and an inflammation allows cellular infiltration with increase of connective tissue to follow; such connective tissue, of distinctly inelastic character, woven into a mucous membrane constructed for the most elastic uses—viz., to allow free ingress and egress of blood, not only for purposes of warming the respired air and for proper glandular secretions, but for increasing or decreasing the lumen of the nostrils, in order to protect the whole respiratory tract from dust and varying degrees of temperature—cannot help being a menace to its integrity. Eventually, as the malady progresses, the mucous membrane is partially squeezed out of existence by fibrous replacement, thereby lessening its physiological function. As a result, there is a lessening of the normal secretion. That which is secreted, being quickly exhausted of its moisture, remains a viscid material impossible to be moved backward and downward to the pharynx as readily as it should be. It consequently accumulates in areas where it can least easily be dislodged, obstructing and irritating by its presence, and thereby forming a nidus for germ growth, and ceasing to be a lubricant; as normal sensations of stopped nostrils, dry sore throat, husky voice, and, later in life, a disgusting desire to hawk, follow. Many children with only partially impaired nasal lumen and a small amount of adenoid tissue at the vault, take cold easily, the nasal secretion being increased in quantity and in viscosity. They may not seem particularly annoyed by it during the day, but on retiring at night sleep may be prevented, or they may be awakened in an hour or so by a continuous titillating cough, which defies all remedies, except narcotics, that the medical attendant, or the disturbed parents may administer; this is largely explained by the fact that adenoid tissue in young children, owing to its vascularity, is prone to increase in size in the recumbent posture, and consequently to act as a foreign body in the pharynx inducing cough and obstructing nasal respiration.

As to treatment, it is essential that the nostrils should be made to do their duty. The establishment of nasal respiration is therefore essential; since, in young children, impairment thereof is apt to be caused or increased by adenoid tissue in the postnasal space, removal is indicated, and the result is usually excellent. Should this be neglected too long, we have the before mentioned irregularities of the nasal interior to attack, but I want to impress the fact that we have, in early attention to any increase in the size of the pharyngeal tonsil, a prevention of the manifold operative features, later so necessary from this neglect.

Cryer (*Laryngoscope*, Vol. xii, p. 938, Report of the Section of Laryngology, New York Academy of Medicine) reports a case where a dentist worked a year to straighten the teeth of a child aged eight years, making almost no progress; this result, however, after an adenotomy, was easily accomplished.

OBSERVATIONS UPON ONE HUNDRED CASES OF GASTROINTESTINAL DISEASES TREATED AT FRENCH LICK SPRINGS.*

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OF THE CHEST.

The subject of American mineral waters has not, it seems to me, received the attention from our profession which its importance deserves. There is a more or less general belief that we have in this country water which, for potency and variety of composition, will bear comparison with the famous spas of the world; but, with few exceptions, our knowledge is based upon wholly empirical observations and the published reports of resort proprietors, the latter at times so extravagant that they seem incredible. That these resorts have constantly grown in popularity is an evidence of our commercial development and of the exigencies of our business and social conditions, rather than the result of the dissemination of knowledge acquired by scientific investigation.

Visitors to American springs go there upon information obtained from their friends and through the medium of advertisements, while the American patrons of European spas are there upon the recommendation of their physicians. The reason for this is obvious. It is simply that the therapeutic indications and limitations of European waters are better understood, and that usually better facilities are

* Read before the American Gastro-Enterological Association in Washington, D. C., May, 1903.

afforded for carrying out adjuvant measures of treatment. It must be conceded, also, that in sending our patients abroad, they have the associated advantages of a sea voyage and a complete change of climate; but such considerations are often quite outweighed by the lessened expense and saving of time which a sojourn at an American resort would entail, and while it can hardly be said that in the treatment of diseases of the gastrointestinal tract balneo-therapy occupies a position of first importance, better results being often attained by the usual methods employed at home, there is, perhaps, no class of diseases, taking them as a whole, in which the judicious employment of mineral waters is attended with greater benefit than those which come under the care of members of this association.

French Lick Springs are located in Orange County, Ind., 125 miles southwest of Indianapolis, on the Monon Railway, being distant from Chicago 275 miles, and from Louisville 80 miles. From the East and West they are accessible by almost any of the trunk lines crossing Indiana. They are delightfully situated in a valley surrounded by heavily wooded hills; the picturesque views from which, together with extensive park lands, shady walks, and the restfulness of the country, all contribute to a favorable environment.

There are in the immediate vicinity of these springs (which includes West Baden) three large fireproof hotels, all built within the past two years. Together they will accommodate 1,500 guests, and in appointments will compare favorably with the best resort hotels in the United States. Excellent facilities are afforded also for sulphur, Russian, and Turkish baths, which are considerably used in connection with the drinking of the waters. In addition to the hotels referred to, there are several smaller hotels, a sanatorium, and numerous boarding houses. The resident population is about 1,500 and the number of visitors annually is estimated at from 60,000 to 80,000.

The resort is open throughout the year, but the most popular season is during the spring, summer, and autumn months. The principal springs are three in number, designated respectively as Pluto, Proserpine, and Bowles; all of them natural springs containing a clear, colorless water of a uniform temperature of 55° F., classified chemically as sulpho-saline-alkaline. Quantitative analyses of these springs are appended. They possess, in general, the same constituents, although differing in their proportion and states of combinations, so that, from a therapeutic standpoint there are in reality three distinct waters. To give an idea of their general properties, I may say that Pluto Spring, the best known and strongest of these waters, has approximately the

following composition, the several elements being represented in grains per imperial gallon: Calcium sulphate, 119 grains; magnesium sulphate, 24 grains; sodium sulphate, 47 grains; magnesium carbonate, 39 grains; sodium chloride, 139 grains; beside which there are traces of silica, iron and alumina, strontium, and lithium, bringing the total solids to 347 grains, with carbon dioxide in the proportion of 433, nitrogen of 4, and hydrogen sulphide 34 parts to the million.

Bowles Spring has considerably less of the sulphates and more of the alkaline constituents, and Proserpine is intermediate between these. We have, it will be observed, in this complex formula, aperients, stomachics, diuretics, tonics, antacids and alteratives, one or more of these influences predominating in accordance with the proportions of the particular ingredients producing them; hence their different effects when employed in different quantities under varying conditions.

The cases treated were classified as follows:

Chronic asthenic gastritis.....	28
Chronic hypersthenic gastritis.....	6
Chronic gastritis complicating hepatic cirrhosis...	5
Chronic gastritis complicating nephritis.....	4
Total	43

Of other diseases of the stomach there were:

Myasthenia gastrica.....	5
Neurasthenia gastrica.....	15
Hyperchlorhydria	17
Gastric ulcer.....	1
Carcinoma	1
Total	39

Of diseases of the intestines there were:

Chronic enteritis with diarrhœa.....	4
Chronic enteritis with constipation.....	7
Chronic colitis.....	4
Constipation	11
Total	26

Being a total altogether of.....108

In addition to these there were approximately 75 other cases, comprising the following conditions: Cholelithiasis, diabetes, chronic alcoholism, gout, obesity, rheumatism, neurasthenia, renal calculi, chronic cutaneous affections, and convalescents from acute infectious diseases.

It will be seen from the foregoing that a considerable proportion of the visitors at this resort go there for treatment of diseases of digestion and conditions incident thereto. A large majority of these digestive disorders were primary. I was also called upon to treat 25 cases of acute indigestion, some of which are included in those already enumerated. With few exceptions they were the result of dietetic

irregularities, and were of short duration. Some, however, exhibited symptoms of acute gastroenteritis of a severe type, in each of which there were evidences of chronic inflammation previously existing. The diagnosis in 36 of the 82 cases of conditions affecting the stomach was verified by chemical and microscopical examination of the stomach contents, after the usual Ewald test breakfast; in the others it was based upon the clinical history and objective signs, together with an analysis of the urine. In the cases presenting symptoms of intestinal disorders the diagnosis was reached by the latter methods, taken in conjunction, in most cases, with a macroscopical and microscopical examination of the *fæces*.

Examinations were made in three persons, employees of the hotel, who presented no evidence of disease of any kind. In each of these I made quantitative analyses of the stomach contents after an ordinary test meal, then repeated this the following day with water from the springs as a diluent; then, after different periods of drinking the water in varying amounts, repeating the original analysis, noting in each instance the general character of other functions, including observations as to the urine, the frequency and character of the stools, etc. As a result of these observations, as also of those made in connection with the treatment of pathological conditions, I would say that the physiological effects of these waters are about as follows:

When taken in small amounts, increased gastric and intestinal secretions, increased peristalsis, stimulation of the hepatic functions and of the renal excretions. In large quantities, they acted as hydrogague cathartics; there was marked diuresis; usually some diaphoresis, and sometimes vomiting. In cases presenting evidences of gastric motor insufficiency there were distention and eructations of sulphuretted hydrogen; but these symptoms were not present with normal motility, unless very large amounts were taken or there had been some manifest indiscretion in diet, in which case there frequently resulted acute indigestion attended with violent vomiting, purging, and diuresis. Owing to the stimulation of the gastric function there was, in most cases, a noticeable improvement in appetite and assimilation, with some increase in weight; although loss of weight, as a result of increased elimination, was observed in those of a corpulent habit. There was often a tendency to drowsiness, probably as a result of the rapid absorption of the water. The spring water was used somewhat in lavage of the stomach and colon, but it was difficult to estimate to what extent, if any, the results differed from those obtained when ordinary water was employed in the same way. My conclusions regarding the

therapeutic indications and contraindications were as follows:

The best results were obtained in cases of chronic gastritis with an attendant deficient secretion and excessive mucus, especially in those in which constipation, scanty urine, and the evidences of a disturbed metabolism were associated. I was able to demonstrate repeatedly an improvement in the gastric functions and in the character of the renal and intestinal excretions, coincident with the subsidence of the subjective symptoms. These results were observed, also, in cases complicating hepatic cirrhosis and nephritis, with the exception of one case in which there were evidences of marked renal degenerations.

In hypersthenic gastritis the results were not so good, although two cases showed decided improvement, owing, no doubt, to the effects of the water upon the intestinal tract. Unless employed with caution cases of hyperchlorhydria were not benefited by the treatment; and in the case of gastric ulcer and that of carcinoma the symptoms were aggravated.

Myasthenia of considerable degree affords another contraindication. A majority of the purely nervous cases were benefited; a result no doubt, in most instances, attributable as much to environmental and hygienic influences as to the water itself, the same factors exerting a favorable tendency in some cases of intestinal diseases. Cases of colitis of mild type, especially those in which constipation was a symptom, all showed considerable improvement. The cases of constipation due to atony were markedly benefited, a benefit which I was able to observe in a few cases among my own patients to be of a permanent character, proper regimen and exercises being employed in conjunction with the water.

Judging from my own experience I would say that these waters are not indicated in enteritis of a severe type. I witnessed the complete disappearance of albuminuria and glycosuria in some cases of considerable severity after a few days' treatment, but I know nothing as to the duration of these evidences of improvement, as I was not able to follow any of these cases beyond their stay at the springs.

As regards the question of how to prescribe these waters, but few general rules can be given, and even these must be subject to modification depending upon the effects observed. A plan which I found most generally applicable was to prescribe one or two glasses of the water to be taken hot just before breakfast; between breakfast and luncheon, two to four glasses taken directly from the spring; and a like quantity between luncheon and dinner. Persons should exercise freely while drinking the water. It is well to allow an interval of fifteen minutes between glasses, and not to drink the water less than an hour before, or two hours after, a meal. It is

important, also, to obtain a complete evacuation of the bowels early in the course of treatment, and for this purpose I was accustomed to recommend that a wine glass full of Concentrated Pluto, such as is sold on the market, should be added to the initial tumbler. The special indications of the individual springs are suggested by their formulæ. In cases of achylia gastrica and intestinal atony, the stronger waters will be most useful, while in hyperchlorhydria and enteritis the water from Bowles Spring will give the best results. I sometimes directed that the former be taken before breakfast, and the latter during the remainder of the day. The most important indications and contraindications for the employment of these and other waters are, after all, I believe, determined by the state of the gastric functions; and the beneficial results, not only in gastro-intestinal diseases, but in all other conditions, are largely due to these influences. The diet should in all cases be regulated by the existing disease and the state of nutrition, although few restrictions are necessary, owing to the favorable conditions under which the treatment is given. Acids and alcoholic beverages should be excluded, on account of their incompatibility with the water. There are many temptations for transgression of the rules prescribed for diet with a *ménù* such as is usually found at a first class hotel. Meals *à la carte*, from a list containing only the nutritious and easily digestible foods, would do much to overcome this tendency.

I should like to add a word of warning, also, regarding the practice so frequently observed among visitors at universal water resorts, of drinking the waters too freely. Improvement is not always, as seems to be the popular idea, in proportion to the amount of water consumed, sometimes, even, it bears to it an inverse ratio.

The following are the analyses referred to:

	Springs.		
	PLUTO.	PROSPERINE.	BOWLES.
	Grains to the Imperial Gallon.		
Silica	1.708	0.952	0.070
Iron and alumina....	Trace only.	Trace only.	Trace only.
Calcium sulphate....	119.602	115.528	22.161
Magnesium sulphate.	24.094	26.796	22.161
Magnesium carbonate	39.103	35.532	31.738
Sodium sulphate....	47.600	43.116	45.115
Sodium chloride....	139.650	125.685	106.289

St. Louis City Hospital.—The notorious underground observation wards of this institution have been abolished and an airy room on the fourth floor is fitted up to take their place. Formerly patients suspected of insanity were held in these noisome dungeons till the physicians were able to examine them, resulting in indiscriminate crowding irrespective of any consideration except sex. This has now been done away with.

Therapeutical Notes.

An Injection for Dysmenorrhœa.—*Journal des praticiens*, for August 29, 1903, gives the following:

- R Tincture of opium.....10 drops;
Powdered camphor....20 centigrammes (3 grains);
Yolk of egg.....one;
Decoction of marshmallow.....150 grammes (5 ounces).

M. For one injection.

Chloroform in Gastralgia.—Beurmann, according to *Journal de médecine de Paris*, for August 16, 1903, gives the two following formulæ, as valuable vehicles for chloroform:

- R Saturated chloroform water.....150 grammes (5 ounces);
Orange flower water....50 grammes (1 2/3 ounces);
Syrup of opium.....50 grammes (1 2/3 ounces);
Mint water.....20 grammes (5 drachms);
Water100 grammes (3 1/3 ounces).

M. Dessertspoonful every quarter of an hour.

- R Cocaine hydrochloride .5 centigrammes (3/4 grain);
Saturated chloroform water } of each...50 grammes
Distilled water } (1 2/3 ounces).

M. Tablespoonful every two hours.

For Chronic Pharyngitis.—According to the *Journal des praticiens* for August 29, 1903, the ætiology of this disease may be external, from dust, alcohol, or tobacco, or internal, from auto-intoxication, the sufferer being gouty, rheumatic, dyspeptic, neurasthenic, or diabetic. Obviously the diet must be regulated in the latter condition, and any bad habit checked. For local treatment, the following is useful:

- R Sodium borate.....15 grammes (225 grains);
Infusion of coca leaves...500 grammes (16 ounces);
Tincture of myrrh.....10 grammes (150 grains).

M. Use as a gargle, hot, every two hours.

or this may be preferred:

- R Potassium chlorate.....10 grammes (150 grains);
Infusion of blackberry leaves.....450 grammes (15 ounces);
Alcoholate of scurvy-grass.....50 grammes (1 2/3 ounces).

M. For a gargle.

Iron Lemonade.—The *Philadelphia Hospital Formulary* gives the following, under the title *Mistura Ferri Phosphatis*:

- Each teaspoonful contains:
Tincture of ferric chloride....10 minims (0.6 c. c.);
Dilute phosphoric acid.....10 minims (0.6 c. c.);
Glycerin15 minims (1 c. c.);
Syrup of citric acid, to measure.....1 fluid drachm (4 c. c.).

Dose: One to two teaspoonfuls.

Camphorated Oil as a Vehicle for the Hypodermic Administration of Morphine.—In cases of inoperable cancer, camphor as a tonic, and morphine as an analgetic are indicated. Morphine is insoluble in oils, but the use of oleic acid will give a clear solution. The following contains 1 1/2 grains of camphor and 3/20 grain of morphine in each fifteen minims:

- R Camphor1 gramme (15 grains);
Morphine10 centigrammes (1 1/2 grains);
Pure oleic acid.....q. s. to dissolve;
Olive oil, washed with alcohol, and sterilized, enough to make 10 grammes (150 minims).

M. For hypodermic use.

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THE RECENT NEW ENGLAND EPIZOOTIC OF
FOOT AND MOUTH DISEASE.

In the *Nineteenth Annual Report of the Bureau of Animal Industry* the chief of the bureau, Dr. Salmon, gives an exposition of foot and mouth disease that should be very instructive to owners of cattle, sheep, and swine. The recent epizootic affecting the States of Massachusetts, Rhode Island, New Hampshire, and Vermont serves as the occasion for the article and emphasizes the necessity of spreading broadcast just such information as Dr. Salmon furnishes. The outbreak had been in progress for about three months before its occurrence was reported to the bureau. It was then found to be widespread and of more than ordinarily virulent character. Consequently it was thought necessary to resort to radical measures to limit the area of its prevalence and shorten its duration. We may judge of the drastic nature of these measures when we read that, out of 4,712 cattle known officially to have been affected with the disease, 4,461 were slaughtered by the Department of Agriculture.

Considerable opposition to the slaughter was encountered, its opponents delaying and embarrassing the bureau in its efforts to restrict the disease, basing their attitude on the common textbook statements as to the low mortality of foot and mouth disease in general. But these statements, as Dr. Salmon points out, give no adequate idea either of the mortality that may characterize certain exceptional outbreaks or of the loss, quite apart from

mortality, that the disease brings upon owners of live stock. Though the average mortality in European countries has been only from two to five per cent., there have been outbreaks in which fifty per cent. of the cattle affected died. But this is not all; the actual losses are much greater than the mortality of itself would cause. "The high fever," says Dr. Salmon, "causes a rapid loss of flesh, which loss is augmented by the fact that, owing to the large vesicles and resulting ulcers in the mouth, the animals are not able to masticate their food. On account of this loss of flesh their value is decreased from twenty to twenty-five per cent. At the same time the milk secretion almost disappears, and the owner loses all revenue from his animals for from four to six weeks." Furthermore, the crippling of many of the animals by losing the hoofs and from ulcers that cause chronic lameness, the occurrence of abortion in pregnant females, and the frequent destruction of the udder by abscesses lead Dr. Salmon to express the belief that, on the whole, it is probably not far from correct to estimate that in an outbreak such as the recent one in New England the average loss on account of the disease equals fifty per cent. of the value of the cattle affected.

"RACE SUICIDE."

In an article entitled *The Cause of Race Decline Is Not Education*, published in the June number of the *Popular Science Monthly*, Dr. George J. Engelmann, of Boston, presents us with an important addition to his previous studies in demography. The contention indicated in the title of the article is supported by statistics going to show that college bred men are not behind their humbler fellow citizens in rearing families, but he points out that native Americans of almost all classes fall far behind foreigners in this respect. Without wholly renouncing the plausible idea that fertility naturally decreases *pari passu* with the advance of civilization—a notion rather flattering to us Americans as a race—we may readily admit the truth of Dr. Engelmann's allegation that it is not any acquired infertility that makes American families small, but rather the deliberate determination on the part of our married couples not to have more children than they can support in some approach to luxury or compatibly with luxury for themselves.

What is the remedy? It is useless to inculcate the truth that foeticide is sinful; the people cannot or will not comprehend it. Far better would it be, it seems to us, to show men and women that in providing for temporary luxury by economizing in expense for the support of children they are in the great majority of instances dooming themselves to ultimate misery. What happens to the childless husband and wife in their old age, even if they have grown rich in this world's goods? Either absolute neglect or mercenary service. Is it not better to spend a modicum of one's income for life insurance than to devote the whole of it to the fancied requirements of the passing years? So, also, is it not better to depend upon the loving ministrations of one's sons and daughters in old age than upon all other supports whatever? Moreover, is not one surer of these ministrations in one's declining years the more numerous are the sons and daughters? It is difficult to understand how the self-satisfied "business man" of the period can fail to appreciate the force of these considerations.

THE NATURE OF "SCIATICA."

A striking illustration of the fact that views put forth in articles contributed to medical journals must rest on the arguments adduced by the author, and are in no wise backed up by the journal, has recently been presented in the columns of the *Lancet*. In that journal's issue for August 22d there was published a lecture shortly before delivered at the Medical Graduates' College and Polyclinic, by Dr. William Bruce, in which the author made some radically iconoclastic statements with regard to our notions concerning the affection known as sciatica. He went so far as to affirm that all cases so called were really examples of an inflammatory disease of the hip joint, and even to assert that there was no such thing as neuritis.

In the *Lancet's* issue for August 29th an editorial writer, while granting that Dr. Bruce's statements may well open our eyes to the looseness with which the term sciatica has been used as a cloak for ignorance of precise pathological conditions, proceeds to demolish the contention that there is no such thing as neuritis, and that consequently the affection termed sciatica is never an inflammation of the sciatic nerve. The reality of neuritis, says the writer,

has been abundantly demonstrated, and it is not to be wondered at that in cases of sciatica there should be an increase of pain on moving the thigh upon the pelvis, for every movement at the hip joint necessarily involves movement of the sciatic nerve, a change of relations between the inflamed nerve and the structures surrounding it.

Therefore the writer quite disagrees with Dr. Bruce, and we must say that his criticisms seem to us well founded. At the same time we should not contend that sciatica was always neuritic, but should rather incline to the impression that its pathology was not invariably the same. It seems to us that there is such a thing as supersensitiveness to pressure quite independent of an inflammatory condition, also that there is a non-inflammatory sensitiveness to motion.

A NEW AND VALUABLE HYPNOTIC.

The manufacture of new soporific medicines has not always been justified by the results, but some unusual virtues may be discerned in a recent synthetic production, veronal. This preparation, first described by E. Fischer¹ and J. von Mering,² is one of a series of compounds of urea; its chemical name is diethylmalonylurea, a designation which reveals a relationship to other hypnotics. In many of its properties it resembles trional, and all the evidence shows that it effects its work without changing the character of the blood or causing any disturbance of the respiratory function. In addition, it seems to have a considerable range of action, being useful in ordinary sleeplessness and meeting with a tolerable degree of certainty the more violent resistance of hysterical psychoses and acute mania.

These merits, considering the disappointing results we have had with new hypnotics, make veronal an object worth study and careful observation. Not being a proprietary or costly article, it has not the objections to its use that have some other remedies of the same kind, which, it is just to say, would find their good qualities acknowledged if it were not for their prohibitive price and commercial significance.

Veronal, we observe, has been used alone—uncombined with any other hypnotic—but it is far

¹ E. Fischer and J. von Mering, *Die Therapie der Gegenwart*, March, 1903.

² W. Fischer, *Therapeutische Monatshefte*, August, 1903.

more effective in combination. W. Fischer and Poly, in their published reports of its clinical effects, have administered it in doses of half a gramme to a gramme without the aid or association of another drug of similar nature. That, singly, it should have done such good service in so many varied cases is sufficiently expressive of its claims to consideration. It should be remembered, however, that veronal, like many other products of modern chemistry, is a highly complex substance with numerous chemical ramifications. On these grounds, as well as on physiological and on that of a similarity of physical properties, we consider it as perhaps the best illustration of a valuable principle—nowhere more effective than in the class of soporifics—of combining two of these agents with powers supplementary of each other.

We venture to say that this principle—long known—has been too negligently observed by physicians. As an example, in the sphere of modern hypnotics, we do not know of a more certain and effective combination than that of trional and sulphonal, in the proportion of one to two, precisely because these two reinforce each other. In the whole range of therapeutics there is probably no more powerful and trustworthy aid in an extremity than the old combination of bromide, chloral, and opium (Brunton), but unfortunately there are grave objections to its general use. In the case, however, of such a union as veronal and trional these obvious objections do not present themselves, and, we think, these two drugs will appeal to the minds of our readers as logical allies, capable of producing better results together than either used alone. In fact, from the experience at hand, we entertain little doubt of the utility of combining veronal and trional in the proportion of two to one. Both have a cumulative action, which shows itself in a gentle and continuous somnolence, without any toxic appearances; the remedial effects of this drowsiness are, in many cases, inestimable. We advise the taking advantage of this property by beginning with a full dose, ten grains of veronal to five of trional, and continuing with smaller doses when the cumulative action appears. It would be rash to say that this forms an ideal hypnotic, but we believe without hesitation that it brings us a step nearer the goal of that desirable fruition. ROBERTS BARTHOLOW.

MEDICAL PRACTICE AS A MEANS OF LIVELIHOOD.

Of course there are plenty of men who are making more than a living by the practice of medicine, but I believe that every man who has intelligence enough to get a medical degree at the present time ought to be able to reckon with confidence that he will gain a comfortable living from it. Since there are so many who do not, ought we to encourage any but the exceptionally gifted, or the exceptionally situated as to opportunity and means, to enter it? I think not.

There are two remedies which suggest themselves, at least for the future. One is the opening of other avenues for work which may be followed in connection with medical practice, at the expense of efficiency, it may be supposed. The health boards offer such opportunities, and at the civil service examination for medical inspector held in New York in June several hundred applicants appeared to take the examination, not all of them young and inexperienced. Many other lines of work may be found if sought for. The positions in hospitals and dispensaries, which always give the holders of them advantages for practice, should be so regulated that no man, however capable, could hold them indefinitely. Of the holders of these positions how often it has been said, "Few die and none ever resign!" The selfishness of this plan is but too often apparent.

The other remedy is to limit, by legislation if necessary, the number of graduates which each college may turn out annually. This may seem a drastic measure, but it would not be long before its utility would be evident. With a limited number of physicians there would be less cutting of fees and underbidding and advertising for patronage, the profession would become more truly scientific and beneficent and less commercial, and the result would be a distinct advantage, alike to the physician and the public.

ANDREW F. CURRIER.

GANGRENE FROM MERCURIAL INJECTIONS.

Possibly the partiality for hypodermic medication is about to disappear. Pflüger (*Archiv für Dermatologie und Syphilis*, lx. 3; *Berliner klinische Wochenschrift*, June 22d) announces that he has given up the use of intramuscular mercurial injections in consequence of having observed gangrene as a result of their employment; but he says

he will still employ subcutaneous injections, for the gangrene that might be caused by them would not be serious. The mercurial used by him was the biniodide.

THE LATE LORD SALISBURY AS A SCIENTIFIC MAN.

We gather from an editorial article in the *Lancet* for August 29th that the late Lord Salisbury had a deep insight into the physical sciences and was an astute reasoner on the basis of such insight. We judge from the *Lancet's* article that he might well be compared to our own Franklin. Both were statesmen of the highest order, and both were well attuned to the observation of nature.

THE REDUCED BIRTH RATE OF FRANCE.

The threatened depopulation of France in consequence of the reduced birth rate has of late years been the subject of much grave thought and no little anxiety. We can understand that many of the giddy Parisians take means to elude the parental relation, but that voluntary childlessness should be widely prevalent throughout the country we find it difficult to understand, for France is accounted one of the happiest and most prosperous of countries. Nevertheless, Pinard and Richer (*Annales de gynécologie et d'obstétrique*, January-March; *Zentralblatt für Gynäkologie*, August 1st) seem to have come to the conclusion that the comparative childlessness of the French nation is due, not to sterility, but to intentional interference with the natural course of events in marital life. This is a lamentable conclusion, and we hope that its continued tenability will not long persist.

THE RECENT DEATH ABROAD OF TWO FORMER NEW YORK PHYSICIANS.

Within the last few weeks there have died in Germany and in England, respectively, two physicians who were formerly for many years well known general practitioners in New York—Dr. Joseph Schnetter, and Dr. Luis P. Walton. Though Dr. Schnetter returned to his native country several years ago, it is evident that he still cherished a fondness for New York, as no well constituted person who has lived here for any considerable length of time can help doing, for it is reported that in his will he left substantial sums to two of the hospitals of New York, the German and the Mt. Sinai. We are not sure that Dr. Walton was not a native of the United States,

but he was certainly of English parentage. He was a graduate of the College of Physicians and Surgeons, of the class of 1870. Both these gentlemen are most favorably remembered by the New York profession.

THE NEED OF PRECAUTIONS IN THE TRANSMISSION OF CONTRIBUTIONS.

It is not rare for us to fail to receive manuscripts, etc., sent to us by mail. It is still less uncommon for us to receive photographs and drawings unaccompanied by any clue as to the sources from which they came. It often happens that we are unable to divine to what article a given illustration belongs. Therefore we would impress upon our contributors the desirability of transmission by registered mail.

OBSTETRICAL PARALYSIS.

The paralytic conditions consequent on prolonged compression of the foetal head in the process of parturition may well, it seems to us, engage the close attention of the practitioner, and we therefore commend to our readers a careful study of Dr. Bochrach's article on Birth Palsies published in this issue of the *Journal*. If the author's contention that undue postponement of the use of the forceps is an important factor in the production of these paralyses were alone to receive due attention, the result would, we are persuaded, be a distinct gain in infantile vigor.

THE LATE PROFESSOR MAISCH.

The professions of medicine and pharmacy are so intimately bound up together that we physicians cannot but feel the utmost interest in the achievements of such disciples of pharmacy as Parrish, Maisch, and Rice. We have learned much from them, not only as to matters of their science and art, but also in rectitude of life. We are therefore pleased to see that a fitting memorial of the late Professor John Michael Maisch, for many years the editor of the *American Journal of Pharmacy*, has been published by so competent an authority as the apothecary of the German Hospital of Philadelphia, Mr. M. I. Wilbert. Mr. Wilbert is quite justified in styling Professor Maisch "an ideal pharmacist;" indeed, he was more than is ordinarily understood by the term pharmacist, for he made many important additions to our knowledge of the properties of the medicinal plants of the United States and Mexico, to say nothing of his contributions to our advance in the understanding of drugs of animal and mineral origin.

News Items.

Society Meetings for the Coming Week:

MONDAY, September 21st.—New York Academy of Medicine (Section in Ophthalmology); Hartford, Conn., Medical Society; Chicago Medical Society.

TUESDAY, September 22d.—Metropolitan Medical Society, New York (private); Buffalo Academy of Medicine (Section in Obstetrics and Gynecology); Richmond, Va., Academy of Medicine and Surgery; New York Medical Union (private).

WEDNESDAY, September 23d.—New York Academy of Medicine (Section in Laryngology and Rhinology); New York Pathological Society; American Microscopical Society of the City of New York; Philadelphia County Medical Society; New York Dermatological Society (private).

THURSDAY, September 24th.—New York Academy of Medicine (Section in Obstetrics and Gynecology); New York Orthopædic Society; Brooklyn Pathological Society; Brooklyn Society for Neurology; Roxbury, Mass., Society for Medical Improvement (private); Pathological Society of Philadelphia (Conversational); Church Hill Medical Society of Richmond, Va.; New York Celtic Medical Society.

FRIDAY, September 25th.—New York Clinical Society (private); New York Society of German Physicians; Yorkville Medical Association, New York (private); Philadelphia Clinical Society; Philadelphia Laryngological Society.

SATURDAY, September 26th.—Harvard Medical Society, New York (private).

Change of Address.—Dr. Charles P. Haller, to 525 State Street, Bridgeport, Conn. Dr. G. A. de Santos Saxe, to No. 294 West Ninety-second Street, New York. Dr. Bernhard A. Fedde, to 96 Sixth Avenue, Brooklyn, New York City. Dr. E. Russell Houghton, to 167 West Ninety-first Street, New York.

NEW YORK, CITY AND STATE.

St. Lawrence State Hospital.—The State commission of lunacy has appointed Richard H. Hutchings to succeed William Mabon as superintendent of this institution, at Ogdensburg, N. Y.

The Medical Department of Niagara University has filed notice that it intends to mortgage some of its Buffalo real estate for the sum of \$23,000, the money to be used in carrying on the work of the department.

Addition to Gouverneur Hospital.—Plans have been filed with Superintendent Thompson, by the architect, for the new hospital near Gouverneur Slip, running through from Water to Front Street. The plans provide for the erection of a west wing, a one story rear extension into the courtyard, and a two story ambulance station with a stable adjoining.

New York School Inspectors.—On the 11th instant, Dr. Lederle, of the board of health, appointed fifty-five health inspectors and thirty nurses to stations where they would meet the public school children on the morning of the 14th, and be able to separate those suffering from contagious disease, before they could enter the schools. Such pupils will be conducted to their homes and instruction given to the parents where efficacious treatment may be had, that the youngsters may return as soon as possible to their studies.

Watertown, N. Y., City Hospital.—F. Ross Haviland, of Fulton, has received the appointment of house surgeon to this institution, and will report for duty on October 1st.

St. Mary's Hospital, of Rochester, N. Y., celebrated its forty-sixth anniversary on the eighth instant. Sister Marie is at the head of the institution, which has prospered greatly under her management.

The Moses Taylor Hospital, of West Seneca, N. Y., will shortly be opened for the reception of sick or disabled employees of the Lackawanna Steel Company and the Lackawanna Railroad. It is the gift of Moses Taylor, who has amply endowed the institution, which will accommodate some fifty patients and be equipped in modern style.

Unexpected Complication in the Medical Law.—Dr. Cynthia Jane Warburton, of 242 West Forty-third Street, this city, was brought up recently on a charge of violating the registration law, her name not having been found on the books of the city clerk. Dr. Warburton was able to explain that she registered under her maiden name of Wade and had not thought it necessary to re-register simply because of her marriage.

Crusade Against Toy Pistol in Buffalo.—The Buffalo Academy of Medicine has taken up the crusade against toy pistols and dynamite explosives for the Fourth of July or any other time. Many prominent physicians were present at a meeting held September 9th. A committee, consisting of Lucien Howe, Walter D. Greene, Roswell Park, Eugene Smith, and P. W. Van Pyma, was appointed to take up the question and urge adoption by the city of an ordinance prepared by Dr. Howe. The proposed ordinance is exacting and prevents the sale of "any fireworks containing dynamite or any other explosive more powerful than ordinary black gunpowder to any person without permission from the mayor, or the sale or gift to any child or children without the written consent of the parents of any gun or pistol, of any kind of toy cannon, or any firecracker or torpedo, rocket, balloon, or other form of fireworks or explosive is hereby prohibited." The ordinance further prevents the discharge of any explosives in the streets of the city. Dr. Howe stated that "the provisions of this ordinance shall not apply to the public parks, but it shall apply to all avenues and streets connecting these parks with each other."

PHILADELPHIA AND PENNSYLVANIA

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

DISEASES.	Week ending Sept. 12		Week ending Sept. 5	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	7	5	10	2
Diphtheria	40	9	55	10
Scarlet fever	68	4	79	1
Typhoid fever	135	9	104	7
Consumption		48		43
Cerebrospinal fever	0	0	0	0

This table shows a decrease of eight in the total of cases of contagious diseases as compared with the preceding week.

University of Pennsylvania.—The opening address for the ensuing session will be delivered by Provost Charles C. Harrison, LL. D., on September 25th, at noon.

Medical Society of the State of Pennsylvania.—This Society will meet at York, Penn., September 22d to 24th. The chairman of the committee on arrangements is Dr. Isaac C. Gable, of York, Penn.

A School for Nurses at Frankford Hospital will shortly be started under the direction of Dr. R. Bruce Burns, the President. As the hospital charter calls for such an educational feature as well as for a medical school, full advantage will be taken of it. The school will be confined to the hospital nurses, and the various branches will be taught by the members of the hospital staff.

Picnics for the Insane.—For some time it has been customary to give outings to the inmates of the insane department of the Philadelphia Hospital. Much constitutional benefit has been derived therefrom, both on account of the fresh air as well as the change of scene. The patients are taken in groups in large omnibuses, and are under the constant supervision of attendants and physicians.

Another Impostor Appealing to Physicians.—Dr. J. H. Musser, of 1927 Chestnut Street, Philadelphia, writes us to the effect that a young man is visiting practitioners in different parts of the country representing himself as the nephew of Dr. Musser, and securing money on various pretexts. The President of the American Medical Association has no such nephew, nor is any one empowered to use his name to forward any scheme whatsoever.

Typhoid Fever in Roxborough.—The increasing number of cases of typhoid fever in this section of Philadelphia is causing considerable concern. St. Timothy's Hospital is crowded to its fullest capacity. Under orders from the board of health the firemen and police have been flooding the sewer inlets in the Raynorville section of Roxborough, where almost forty cases of the disease are said to exist in four streets. A rigid inspection is being made of the milk dairies in the district, and some of them may be quarantined.

Phipps Institute.—Steps will now be taken toward perfecting a permanent plan of organization in accordance with the charter recently granted to the Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis, of which Dr. Lawrence L. Flick, of Philadelphia, is President. With an endowment of a million dollars, it is the purpose of those in charge of the institution to find a permanent location and complete its equipment at the earliest possible date. At present more than fifty patients are housed in cramped and inadequate quarters. In addition to Dr. Flick, Henry Phipps, and George E. Gordon, of New York, have been named to constitute the board of directors for the first year. Amy F. Phipps, and Samuel B. Harbison, of Pittsburgh, are named as subscribers in conjunction with the three directors.

Vaccination Enforced Among School Children.—The board of health is rigidly enforcing its regulation, not to admit any child to the public schools who does not present a certificate from a qualified physician to the effect that it has had smallpox or been successfully vaccinated. The entrance of the physicians into the schools for the purpose of inspecting the children recently created a slight friction among the teachers and the physicians. This, however, is now being remedied.

Assistant Visiting Physicians to the Philadelphia Hospital.—Each visiting physician has now the privilege of sending a representative to look after his wards, which until recently could not be done. The following is the list of these assistants, known as Assistant Chiefs: Assistant Physicians, B. F. Stahl, Norman G. Gwyn, John Da Costa, R. H. M. Landis, William Pepper, John H. Cruice, H. C. Wood, Jr., J. S. Evans, J. N. Henry. Assistant Surgeons, W. P. Hearn, M. B. Miller, R. H. Loux, M. P. Warmouth, J. B. Carnett, D. G. Metheny, T. T. Thomas. Assistant Obstetricians, J. C. Hirst, Stricker Coles, P. B. Bland, W. R. Nicholson, E. P. Bainbridge, M. W. Griscom, E. H. Bainbridge, A. P. Berg. Assistant Neurologists, J. W. McConnell, A. Gordon, D. J. McCarthy, L. C. Peter, T. H. Weisenberg, H. Carn-cross. Assistant Ophthalmologists, E. A. Shumway, J. C. Knipe, W. M. Sweet, A. R. Renninger. Assistant Dermatologists, E. J. Stout, S. H. Brown, H. J. Smith. Assistant Pathologists, Funke, G. McConnel, R. M. Pearce. Assistant Laryngologists, Ralph Butler, M. W. Hinkle, W. G. B. Harland. Assistant Dental Surgeons, E. C. Rice, R. G. Beale. Assistant Orthopædic Surgeons, T. J. Pugh, Edward B. Hodge. Assistant Pædiatrists, Harry Lowenberg, A. H. Graham, Charles A. Fife, J. H. McKee.

All Infected Dwellings to Be Disinfected.—The department of health has issued orders regarding the placing and maintaining a strict quarantine upon all houses from which diphtheria or scarlet fever has been reported, as well as smallpox, which are likely to create considerable dissatisfaction in the medical community. The orders are as follows: "In all cases of diphtheria and scarlet fever premises must be placed under quarantine until termination of the disease. All inmates of infected premises who have taken their departure previous to quarantine must be returned and removed to the municipal hospital to submit to an antiseptic bath and fumigation of clothing. When a patient has been removed to the municipal hospital for treatment or the case has terminated at home, either by death or recovery, the inmates of infected premises are to be removed to the Philadelphia Hospital for antiseptic bath and fumigation of clothing. During the absence of inmates, infected premises will be fumigated, and bedding removed." At the office of the bureau of health it was stated that in compliance with these instructions upwards of forty dwellings scattered throughout the city had already been placed under quarantine and more were to be established. A prominent physician, in discussing the new departure, stated that such

a course as provided for in the orders was unnecessary, and if the same were enforced it would be the means of causing many medical practitioners not to report cases of this character that came under their notice, to the bureau of health.

The Ætiology of Typhoid Fever Epidemic.—It is stated by the health authorities that the cause of the typhoid fever epidemic has been discovered. Ever since this disease has been raging in this city the authorities have been endeavoring to ascertain the cause. The wards where filtered water was furnished had the most cases and the districts in which pure Schuylkill water was delivered were free from all contagion. A rigid investigation was set afoot and despite the fact that every effort has been made to ascertain the cause, the disease continues to prevail to an alarming extent. The records of the bureau for the week ending September 12th show one hundred and thirty-five new cases, an increase of thirty-one over the previous week. There were nine deaths, an increase of two. In such districts as Manayunk, Roxborough, and Germantown typhoid fever has a strong hold, but according to A. A. Cairns, assistant to the medical inspector, the cause of the outbreak has not been found. Director Martin, of the Department of Public Health and Charities, last week gave out the information that the investigation had been concluded and the actual cause determined. Dr. Martin admitted that important discoveries had been made concerning the cause of the outbreak of typhoid, but refused to divulge them at this time. Another officer connected with the health department said: "Through the system of inquiry, a large dairy, located near Roxborough, that supplied one hundred and eighty quarts of milk daily to residents scattered throughout the section where typhoid prevailed most, was closed in the early part of last week. In our investigation it was learned that the milk used by one family in which typhoid fever prevailed had been purchased from this dairy. When the farm was visited two cases of typhoid were found on the premises."

CHICAGO AND ILLINOIS.

Statement of Mortality for the Week Ending September 12, 1903, compared with the preceding week, and with the corresponding week of 1902. Death rates computed on estimated mid-year populations of 1,885,000 for 1903, and of 1,820,000 for 1902:

	Sept. 12, 1903.	Sept. 5, 1903.	Sept. 13, 1902.
Total deaths, all causes.....	504	464	494
Principal causes of death.....			
Acute intestinal diseases.....	92	83	86
Apoplexy.....	11	9	9
Bright's disease.....	34	25	28
Bronchitis.....	15	9	11
Consumption.....	57	54	39
Cancer.....	16	21	23
Convulsions.....	10	4	8
Diphtheria.....	10	14	7
Heart diseases.....	39	32	33
Measles.....	..	1	..
Nervous diseases.....	22	26	22
Pneumonia.....	25	29	34
Scarlet fever.....	2	..	3
Suicide.....	15	11	8
Typhoid fever.....	21	22	43
Violence (other than suicide).....	26	25	27
Whooping cough.....	..	..	10

A New Work by G. Frank Lydston.—We are informed that Dr. G. Frank Lydston is shortly to publish a work, of sociological importance, entitled *The Diseases of Society*, in which the questions of crime and the social evil will be discussed.

Results of the Recent Food Raid.—The more summary the process the better the results, as seen in the marvelous improvement in the quality of meats, fish, and fruit in the many localities where treatment "on the spot" has been applied through the kerosene can with the rose sprinkler.

Notice to School Teachers.—Although probably unnecessary to remind school principals and teachers of their obligations under the city ordinance in regard to vaccination, it is worth while repeating that no vaccinated scholar of the Chicago public schools has ever contracted smallpox. There have, it is true, been seven cases of the disease among children admitted to school on false certificates of vaccination during the last three years. No blame attaches to the teachers for these cases, but they serve to emphasize the necessity for the greatest watchfulness and for the examination of all scholars by the public vaccinators at the beginning of each school year.

Work of the Milk Division.—The efficient work of the milk division in its supervision of the city milk supply is best shown in the week's report. A total of nine hundred and eighteen samples—nearly a third more than ever before—were analyzed in the laboratory, with only 3.05 per cent. below grade. Of these, six hundred and seventy-two were collected by the inspectors from receiving platforms, wagons and shops and twenty-one were found below grade, or 3.1 per cent. Of two hundred and forty-six samples brought in by milk dealers and private individuals only seven, or 2.8 per cent. were below grade. The milk supply of Chicago was never before so satisfactory; it is unquestionably now the best in the country.

How the Housewife May Help.—The individual housewife can help to improve even this condition. Let her insist that the maid or cook scald each milk or cream bottle as soon as it is emptied. Decomposing milk or cream left in a bottle is difficult to remove after a few hours, and a minute quantity will set up a ferment in fresh milk or cream which will soon cause it to "sour." Return clean bottles to your dealer if you expect sweet milk and cream from him. *Milk Inspection is Practical.*—Occasion is taken to say that the department his neither time nor men to spare in attempts to enforce an obsolete statute concerning the labeling of milk wagons. It is the contents of the wagon, not the legend that it bears, with which the inspector is concerned. If its milk and cream are adulterated it is the man who is actually selling such adulterated goods that the department seeks to punish, without stopping to inquire whence or from whom he procures his supply. The publication of his own name and address are even more effective as a deterrent than the heaviest fine at the end of a time-consuming prosecution—almost as good, in fact, as dumping into the nearest sewer.

The American Association of Obstetricians and Gynecologists will hold their sixteenth annual meeting in Northwestern University Medical School building, Chicago, Ill., September 22d, 23d, and 24th. The officers are as follows: President, Lehman Herbert Dunning, of Indianapolis; vice-president, Marcus Rosenwasser, of Cleveland; Herman Emilie Hayd, of Buffalo; secretary, William Warren Potter, of Buffalo; treasurer, Xavier Oswald Werder, of Pittsburgh. The following papers will be read and discussed: Relationship of the Colon to Abdominal Tumors, by James F. Baldwin, of Columbus, O.; Ectopic Pregnancy, by Henry D. Ingraham, of Buffalo, N. Y.; The Value of Vaginal Cæsarean Section with Report of a Case, by Martin Stamm, of Fremont, O.; The Limitations of Cæsarean Section, by F. Gustav Zinke, of Cincinnati, O.; The Gilliam Operation, by Edward J. Ill, of Newark, N. J.; Hysteria as a Result of Chronic Atrophic Parametritis, by W. A. Freund, of Berlin, Germany; Report of a Fourth Consecutive Successful Operation for Acute Perforated Gastric Ulcer with General Infection of the Peritoneal Cavity, by Henry Howitt, of Guelph, Can.; Should the Uterus and Ovaries be Removed in Operating for Double Pyosalpinx? by Carlton C. Frederick, of Buffalo, N. Y.; The Technics of Gynecological Operations and Treatment, by Albert Vanderveer, of Albany, N. Y.; The Indications and Technics of Vaginal Drainage for Suppuration in the Pelvis, by Albert Goldspohn, of Chicago, Ill.; Shortening the Round Ligaments by the Blunt Hook Method, by Howard W. Longyear, of Detroit, Mich.; Intravaginal Elongation of the Cervix, by Marcus Rosenwasser, of Cleveland, O.; Report of Abdominal Sections During Pregnancy, by Xavier O. Werder, of Pittsburgh, Pa.; Study of the Symptoms and Surgical Treatment of Intestinal Perforation in Typhoid Fever, by W. D. Haggard, of Nashville, Tenn.; Rational Treatment of Postpartum Infection of the Uterus, by D. Tod Gilliam, of Columbus, O.; Conservative Surgical Treatment of the Uterine Annexa, by Augustus P. Clarke, of Cambridge, Mass.; Traumatic Rupture of Intestines Without External Marks of Violence, by George S. Peck, of Youngstown, O.; Penetrating Gunshot and Stab Wounds of the Abdomen, by John Young Brown, of St. Louis, Mo.; Surgery of the Ileocaecal Valve for Nonmalignant Disease, by N. Stone Scott, of Cleveland, O.; Infantile Uterus, Scanty Menstruation, Amenorrhœa, and Dysmenorrhœa Cured by Stem Pessaries, by J. Henry Carstens, of Detroit, Mich.; Tuberculosis of the Female Genitalia and Peritonæum, by John B. Murphy, of Chicago, Ill.; Appendicitis, by Walter P. Manton, of Detroit, Mich.; A Demonstration of Two Interesting Specimens with Brief Histories, by Xavier O. Werder, of Pittsburgh, Pa.; Memorial Address on the Life and Character of William E. B. Davis, by Lewis S. McMurtry, of Louisville, Ky.; President's Address, by L. H. Dunning, of Indianapolis, Ind.; The Choice of Methods for Closing the Abdominal Incision, by Edwin Ricketts, of Cincinnati, O.; Cysts of the Kidney Resembling Ovarian Tumors with Cases, by Rufus B. Hall, of Cincinnati, O.; Hysterectomy in Infectious Diseases of the Uterine Appendages, by

Harry C. Deaver, of Philadelphia, Pa.; Supravaginal Amputation for Fibroid Tumors, with Report of Cases, by H. E. Hayd, of Buffalo, N. Y.; The Scope and Limitation of Myectomy in the Treatment of Fibroid Tumors of the Uterus, by L. S. McMurtry, of Louisville, Ky.; Coincident Tubal and Uterine Pregnancy, by Frank F. Simpson, of Pittsburgh, Pa.; Symptomatology of the Pelvic Musculature, by Hugo O. Pantzer, of Indianapolis, Ind.; Palliative Treatment of Cancer of the Cervix, by Walter B. Chase, of Brooklyn, N. Y.; Abdominal versus Vaginal Hysterectomy in Carcinoma Where the Radical Operation is Warranted, by John B. Deaver, of Philadelphia, Pa.; Total Extirpation of the Vagina for Carcinoma, by Charles G. Cumston, of Boston, Mass.; The Use of Veratrum Viride in Surgical and Obstetrical Practice, by Charles L. Bonfield, of Cincinnati, O.; Anæsthesia in Abdominal Surgery, by J. J. Gurney Williams, of Philadelphia, Pa.; Further Preliminary Notes on Ovarian Grafting, by Robert T. Morris, of New York, N. Y.; Clinical Demonstration of Special Points of Surgical Interest, by John B. Murphy, of Chicago, Ill.; Emergency Abdominal Surgery at the Patient's Home, by W. G. Macdonald, of Albany, N. Y.

GENERAL

Milwaukee Health Department.—William C. Bennett, registrar of this organization, has resigned to resume private practice in Madison. It is thought that Otho Fiedler will succeed him.

The Medico-Chirurgical College, of Kansas City, Mo., began the session on the fifth instant, this being its seventh year. The college is situated at 918 to 924 Independence Avenue.

The Medical College of Ohio, the medical division of the University of Cincinnati, has increased its school year from seven to eight months and will open on the 24th instant. About one hundred and seventy students are expected.

The Naval Hospital, at Portsmouth, Va., is to be enlarged, its two hundred beds being increased to five hundred. Two modern wings will be built in the rear of the present structure and these will be connected by a third.

A Hospital for the State Fair in Minnesota.—Physicians of the Twin Cities have decided to erect a hospital for use during the coming State fair, and will organize a surgical and ambulance service to be constantly on duty during the week.

The Burrage Hospital for Crippled Children, on Bumkin Island, near Boston, closed for the summer on the second instant. Two hundred and three children have been treated since June 1st. The superintendent was Dr. J. Morris Strong, and the matron, Miss Bertha Carvel.

Medical College of Indiana.—The next session of this institution will begin September 22d, 1903. This is the medical department of the University of Indianapolis with which Butler College is associated as the school of liberal arts. The Indiana Dental College and the Indiana Law School are also affiliated with the university.

The Indianapolis Monitor.—Dr. Samuel E. Earp has severed his connection with *The Medical and Surgical Monitor*, of Indianapolis, of which he has been editor since 1898. Its career has been successful, and for several years the Monitor has had a large subscription list, and is founded upon a sound financial basis. A new editorial force will probably be selected from members of the faculty of the Central College of Physicians and Surgeons.

New Committee in the American Congress on Tuberculosis.—The President of the American Congress on Tuberculosis, to be held in Washington, D. C., April 4, 5, and 6, 1905, announces Alfred Meyer, of New York City, consulting physician to the Bedford Sanitarium for Consumptives, to be chairman of a committee in charge of the section on sanitarium treatment of tuberculosis. It is probable that the climatic and other methods of treatment will be comprised under the work of this committee.

Yellow Fever at Monterey.—There is considerable apprehension prevailing at Monterey, where it is said there are two cases of suspected yellow fever. It is the opinion of the United States surgeon in charge that the disease was brought by refugees and passengers from Linares whence fourteen deaths from yellow fever have been reported. The disease also prevails in Teran, fifty miles from Monterey. One of the suspected yellow fever cases in Monterey was in a hotel, whence it was taken to the hospital, and thence to a yellow fever hospital near Victoria. No one is allowed to enter Texas from these points under five days, communication having been cut off by the State quarantine officer. There has been an abundance of rain and the breeding grounds for mosquitoes in Monterey and its vicinities are plentiful.

The American Public Health Association, representing the United States, Canada, Mexico, and Cuba, will hold its thirty-first annual meeting at Washington, D. C., on October 26th, 27th, 28th, 29th, and 30th. The officers, all physicians, are as follows: President, Walter Wyman, of Washington, D. C.; first vice-president, C. P. Wilkinson, of New Orleans, La.; second vice-president, John L. Leal, of Paterson, N. J.; secretary, Charles O. Probst, of Columbus, O.; treasurer, Frank W. Wright, of New Haven, Conn. The executive committee has selected the following topics for consideration, but papers will be received upon other sanitary subjects: Purification of Water Supplies; Disposal of Industrial Wastes; Purification and Disposal of Sewage; Disposal of Garbage; Animal Diseases and Animal Food; Car Sanitation; Steamboat and Steamship Sanitation; Etiology of Yellow Fever; Tuberculosis; Plague; Demography and Statistics in Their Sanitary Relation; Cause and Prevention of Infectious Diseases; Infectious Period of Communicable Diseases; Public Health Legislation; Cause and Prevention of Infant Mortality; Disinfectants and Disinfection; Production and Free Distribution of Vaccine; Teaching of Hygiene and Granting of Diploma of Doctor of Public Health; Sanitary Aid Societies; and The Canteen in Armies.

Dr. Lorenz's First Patient in New Orleans, La., a child, we learn from Dr. C. A. Gaudet, of 711 Howard Avenue, of that city, has made a perfect recovery. The case was one of talipes equinovarus, and the apparatus was in place for four months.

A Medical Publicity Project.—At a meeting of the Wayne County (Mich.) Medical Association recently, it was decided to form a committee of medical men to prepare news of a medical nature for the lay press. This is to prevent garbled accounts of operations, new inventions, etc., and to furnish information regarding prophylaxis and other matters that may be of value to the public.

Johns Hopkins Hospital.—The following physicians chosen from last year's graduating class assumed positions on the house staff on the first instant: Frank Goldborough, F. H. Watson, C. W. Young, A. D. Hirschfelder, A. R. Stevens, W. B. Moulton, H. T. Hutchins, H. T. Miller, Jr., T. F. Riggs, H. D. Long, L. C. Bixler, J. T. Geraghty, and C. E. Brush, Jr. Norman McLeod Harris goes to Chicago to teach bacteriology, Glanville C. Rusk accepts a position with the pathologic institute of New York, and Burton D. Myers becomes teacher of anatomy at the Indiana State University.

The Prize Essay of the American Medical Association.—The American Medical Association offers annually a gold medal, of the value of one hundred dollars, for the best essay on any subject relating to medicine or surgery. To the recipient of this prize will be given the option of the gold medal, or a bronze replica of the medal, and the balance of the appropriation (about \$90.00) in money; or the entire amount (\$100.00) in money. Inasmuch as the association annually sets apart the sum of five hundred dollars for original research, this prize is offered to stimulate the production of a superior practical paper based upon either experimental studies, or clinical investigation, or both. The committee will give preference to papers having the greatest brevity consistent with thorough consideration of the subject, and recommends that they do not exceed five thousand words. The committee, while not restricting the choice of subjects, recommends as an important subject for consideration The Therapeutic Value of the Digestive Ferments. Competing essays must be typewritten, and bear no mark revealing their authorship; but instead of the name of the author there must appear on each essay a motto, and accompanying each essay a sealed envelope containing the name of the author and bearing on its outer surface the motto of identification. No envelope will be opened by the committee until a decision has been reached as to the most deserving essay. The other essays will be returned to their respective authors. The committee reserves the right to reject all essays if none are found worthy of the association medal. Competing essays must be in the hands of the chairman of the committee not later than April 1, 1904. Lewis S. McMurtry, of Louisville, Ky., Chairman; Burnside Foster, of St. Paul, Minn.; M. H. Fussell, of Philadelphia, Penna., Committee.

Pith of Current Literature.

LANCET

August 29, 1903

1. The Surgery of the Ureter for Impacted Calculus and Some Other Causes of Obstruction,

By P. J. FREYER.

2. Remarks on Four Cases of Empyema of the Gall Bladder,

By L. A. BIDWELL.

3. The Surgery of Gastric Ulcer,

By A. B. MITCHELL.

4. A Case of Automatic Wandering Lasting Five Days,

By W. S. COLMAN.

5. A Note on the Ætiology of Yellow Fever,

By J. B. TOMBLESON.

6. A Case of Large Blood Cyst in the Arachnoid Space Simulating Brain Tumor; Operation; Recovery,

By J. TAYLOR, and C. A. BALLANCE.

7. A Case of Ectopia Cordis,

By SIR I. OWEN, and M. J. WILLIAMS.

8. Intussusception of the Vermiform Appendix,

By F. P. CONNOR.

9. A Case of Traumatic Aneurysm of the Gluteal Artery Treated by Incision of the Sac and Ligature of the Artery During Intraperitoneal Compression of the Internal Iliac,

By A. H. MUIR.

10. The Relation of the Thymus Gland to Marasmus,

By J. RUHRÄH.

11. A Series of Cases of Perforating Gastric and Duodenal Ulcers,

By B. G. A. MOYNIHAN.

1. **Ureteral Calculus.**—Freyer states that while the symptoms of renal and vesical calculus are usually well defined, those of stone in the ureter are as a rule extremely obscure. Indeed, it is only when a stone is impacted in the lower end of the ureter that a definite diagnosis can be made. A stone may be arrested at any point in the ureter, but the most common situations are—(1) at a point two inches from the commencement of the ureter; (2) at the brim of the pelvis; and (3) at the vesical end of the canal. The symptoms of a stone lying anywhere along the greater part of the course of the ureter are the same as those of a stone lying in the renal pelvis and obstructing the ureter. The x rays may be of assistance in making a diagnosis, but are even less satisfactory than in cases of renal calculus. When, however, the stone is impacted in the lower end of the ureter at or near its vesical orifice, it generally admits of recognition. Rectal examination (vaginal in women) will often reveal the stone as a hard nodule lying in the ureter beyond the trigone of the bladder. But the most important and reliable means of diagnosing such a calculus is by Leiter's electric cystoscope—the stone can often be seen projecting into the bladder. The author has had no experience of intraperitoneal removal of ureteral calculus. He reports a series of seven cases of impacted ureteral calculus, illustrating the various points brought out in his article.

2. **Empyema of the Gall Bladder.**—Bidwell reports four cases of that rather rare condition, empyema of the gall bladder. One case was due to acute phlegmonous cholecystitis, the other three to simple suppurative catarrh. Acute phlegmonous cholecystitis is a very rare and serious

condition, and in its behaviour resembles acute appendicitis with gangrene of the appendix. Suppurative catarrh of the gall bladder is usually due to gall stones; in some cases it is due to cicatricial contraction of the cystic duct, no stone being present. It is much less serious than the other variety, and the constitutional symptoms are so slight, that diagnosis is often very difficult. In the early stages the tumor is acutely tender and the abdominal walls rigid. Usually the temperature is slightly elevated, but it may be normal. If no operation is performed, the gall bladder may perforate, and an abscess come to the surface. The main point in diagnosing a distended gall bladder is that it possesses a rounded edge below, but at its upper limit it cannot be defined from the liver, although a definite sulcus may usually be felt at this point. In most cases the tumor is very hard and so tense that no fluctuation can be felt. From the bacteriological point of view empyema of the gall bladder may be due to the presence of the colon bacillus, streptococci, or the typhoid bacillus. All three of the cases of simple suppurative catarrh of the gall bladder reported by the author made satisfactory recoveries after operation. The patient with acute phlegmonous cholecystitis died within twenty-four hours of operation.

3. **Gastric Ulcer.**—Mitchell reports a series of eighteen operations for acute and chronic gastric ulcer. He sums up the indications for surgical treatment in gastric ulcer as follows: (1) Cases where the indication is plain, as in hour glass stomach or pyloric stenosis, in which by no possibility dietetic or medicinal treatment could effect a cure. (2) Cases in which the physician has exhausted every other method of treatment. In most cases early operation is inadvisable. Before any operation the patient should be submitted to a period of prolonged rest in bed (not less than one month) with rigid dieting or rectal feeding. (3) Hæmatemesis sometimes calls for surgical aid, but the operative mortality is very high.

4. **Automatic Wandering.**—Colman reports the case of a healthy man, aged thirty-seven years, a telephone lineman by occupation, who had two prolonged attacks of automatic wandering and many of short duration. He would start to go to work in the morning, would "lose himself," and on "waking up," would find himself in a different part of the town, or, as on two occasions, in another town where he had never been before. One attack lasted five and a half days—on coming to his feet were blistered, his shoes worn out, and his clothes muddy as if he had slept by the roadside. None of the attacks occurred when he was on a ladder working at telephone wires. He had an epileptic family history, and the attacks were probably the same as those seen after epileptic seizures.

5. **Bacillus of Yellow Fever.**—Tombleson, while studying a bacillus, found in the blood of a yellow fever patient after death, in a town where yellow fever has never occurred endemically, contracted the disease himself. After his recovery he found the same bacillus in his own blood, taken

at the beginning of the disease. The morphology of the bacillus varies according to the stage of the disease: it is first short, oval, and coccoid; then longer but still short with rounded ends; and finally it is long and beaded, resembling the tubercle bacillus. It resembles the *Bacillus icteroides* of Sanarelli—it is actively motile, stains fairly well with ordinary stains, and grows well on all ordinary artificial media. It probably forms spores. When a pure culture is injected into the liver of a monkey, the animal dies in a few days with many of the symptoms of yellow fever. Examination of the blood shows the presence of the above-described bacillus, and it is easily cultivated in pure culture. The author's serum, after his recovery from yellow fever, clumped a ten days' old culture of the bacillus, with a dilution of one in twenty. He was also able to immunize a dog against the bacillus, the blood serum showing marked clumping powers. He ascribes his own attack to his having inhaled some of the bacilli or their spores. Special stress is laid on the fact that the bacillus is always found in the urine after the appearance of albumin, and can readily be grown in pure culture, thus furnishing a valuable method of early and certain diagnosis. It is further suggested that the disease is often spread by means of the urine, as in typhoid fever. And finally the experimental production of an effective antitoxine is urged, the dog being suggested as the most suitable animal. In a postscript the author reports five cases of yellow fever which bear out the above statements.

6. Blood Cyst in the Arachnoid Space.—Taylor and Ballance report the case of a man, aged thirty-four years, who had injured his head by a fall against a stone wall. Three months later he began to exhibit the symptoms of brain tumor—headache, optic neuritis, paralysis, loss of control of sphincters, etc. The skull was opened, the operation being performed in three stages, and a tense, fluctuating, pulsating tumor of a maroon color was exposed. The right cerebral hemisphere was pushed inwards and compressed. The tumor was not adherent to the brain, and was removed from its bed in the arachnoid space with the fingers alone. It measured seven by four and a half inches, and was one and a half inches thick. There were a few vascular adhesions. The patient made a good recovery and is now in perfect health.

7. Ectopia Cordis.—Owen reports a case of ectopia cordis or displacement of the heart, occurring in a girl aged fourteen years. Its special interest was due to the presence of valve lesions, caused by a precedent attack of rheumatism. The consequent enlargement of the heart enabled its position to be more easily located, while the localization and conduction of the murmurs gave a clue to the situation of the valvular orifices. There appeared to be almost complete dextrocardia, but the course of the aorta was in doubt. The positions of the liver and spleen were probably also reversed.

10. Marasmus and the Thymus Gland.—Ruhrah has investigated post mortem eighteen fatal cases of marasmus. Excepting the terminal infec-

tion, atrophy of the thymus gland was the only lesion found in any of the necropsies. Histologically the fibrous capsule and trabeculae of the gland were thickened, the increased interlobular tissue cutting up the lobules into irregular masses. Sometimes there was more fibrous tissue than lymphoid structure. In most of the cases there was an increase in size and a hyaline degeneration of the Hassall bodies. The author's conclusions are: 1. Atrophy of the thymus gland is always found in infantile atrophy. 2. The condition of the thymus is an index of the general nutrition of the infant. 3. The state of the nutrition in infants may be estimated by a microscopical examination of the thymus gland at the autopsy.

11. Perforating Gastric Ulcer.—Moynihan reports a series of twelve operations for perforating gastric and duodenal ulcer, with six recoveries and six deaths. In acute perforation the ulcer gives way suddenly and completely, the stomach contents escaping into the cavity of the general peritonæum. In subacute perforation the ulcer gives way suddenly, but owing to its small size or the plugging of the opening by an omental flap or the formation of lymph, the stomach contents escape only in small quantity, and the damage done is less considerable. The initial symptoms may be as grave as those in acute perforation. In chronic perforation the ulcer eats its way slowly through the coats of the stomach, a protective peritonitis has had time to develop, and the escape of stomach contents is merely local. Chronic perforations occur more frequently on the posterior surface of the stomach, and cause subphrenic abscesses. The acute forms occur more commonly on the anterior surface. Recovery by medicinal treatment alone is possible both in the acute and subacute forms. Yet such possibility is so remote that operation is called for at the earliest possible moment. The author closes the ulcer at once by a single catgut suture from side to side, covering this with two continuous sutures of Pagenstecher thread. Drainage is usually unnecessary. Search should always be made at the operation for the existence of further ulcers.

BRITISH MEDICAL JOURNAL.

August 1903.

(Seventy-first Annual Meeting of the British Medical Association.)

1. Discussion on the Pathology and Treatment of Chorea,
By D. B. LEES, H. ASHBY, and Others
2. The Relation of the Thymus Gland to Marasmus.
By J. RUHRÄH.
3. The Age for Operating in Cleft Palate.
By R. W. MURRAY
4. A Discussion on Congenital Dislocation of the Hip.
By F. E. B. RICHARD, N. SMITH, and Others
5. Splenomegaly in Infants and Young Children.
By G. CARPENTER.
6. On the Utilization of Infant's Milk Dépôts.
By T. D. LISTER.
7. A Discussion on Tuberculosis in Children: Its Relation to Bovine Tuberculosis.
By N. RAW, W. A. LANE, and Others

1. Chorea.—Lees urges that every case of chorea should be looked upon as presumably rheumatic, and the patient should at first be kept in

bed and treated vigorously as for rheumatism. In the great majority of cases chorea is "cerebral rheumatism"—but not in all, for other microbes and toxins may perhaps affect the cortical cells in the same way as the rheumatic diplococci and their toxins. Acting on the same principle as in cases of cerebral syphilis, where large doses of iodide must be given, the author administers sodium salicylate in large and increasing doses, together with sodium bicarbonate. Ten grains of the salicylate are given every two hours during the day, and every three hours at night—one hundred grains in twenty-four hours. The dose is gradually increased until the patient is taking two hundred grains in twenty-four hours. The bicarbonate is begun at twenty grains to the dose and increased to forty. A watch must be kept for symptoms of salicylate poisoning, especially for a form of breathing resembling the "air-hunger" of diabetes. The ordinary unpleasant symptoms of the salicylates are rare in children. In acute cases the author has found this treatment very successful.

Asby agrees with Lees, but does not believe that all cases of chorea are rheumatic; the disease being very common in anæmic girls showing no signs of rheumatism. Antipyrine in moderate doses is useful in acute cases. Fisher states that when there is no history of rheumatism the likelihood of damage to the heart is small. Also that if no signs of affection of the heart can be detected during the first attack of chorea, the heart will probably not suffer during any subsequent attack. Poynton calls attention to the fact that the diplococcus of rheumatic fever, discovered by Paine and himself, has been isolated from the cerebrospinal fluid and brain in chorea. Inoculation of animals with this organism has, in some cases, caused involuntary movements resembling those of chorea. How much of chorea is due to focal lesions and how much to the toxins of rheumatism, is at present a matter of speculation. [The majority of those taking part in the discussion disapproved of the large doses of salicylates advocated by Lees.]

3. Cleft Palate.—Murray affirms that, provided a cleft of the soft palate is closed before the child has learned to talk, the result, so far as the child is concerned, is perfect. It necessarily follows that the closure of such a cleft should take place somewhere between birth and the end of the second year; within this age limit the later the operation is performed the better. When there is a complete cleft, both of the lip and the palate, operation should be performed upon the lip when the child is about three weeks old, leaving the palate alone until the end of the second year. It is quite remarkable how the closure of the lip influences the subsequent growth of the hard palate. Where the hard palate is involved the subsequent powers of articulation will always be somewhat defective.

4. Congenital Dislocation of the Hip.—Burgard's conclusions are as follows: (1) That all cases should be checked by skiagraphy, and that no "cure" should be spoken of that is not a true anatomical cure. (2) That all cases of congenital

dislocation under fourteen years of age should be submitted to treatment. In the great majority of cases improvement will result, while in some a true anatomical cure is brought about. (3) In all these cases Lorenz's method should be tried first. Even if it fails to effect reduction, it facilitates subsequent procedures. (4) The prospect of a cure by Lorenz's "bloodless method" is in direct proportion to the youth of the child. After the age of four years there is little hope of a true cure by its use. (5) In any case the chances of a cure by the "bloodless" method are not great. (6) An open operation should be done when a skiagraph shows that the dislocation has not been reduced by the bloodless method, except where the child is very young—under three years—when the manipulations may be repeated. (7) With the open operation there need be no fear of shock, bleeding, or sepsis. (8) Under no circumstances should the joint surfaces be remodeled. (9) An open operation is more likely to result in a cure, as it can be seen whether the head of the bone is really in the acetabulum. (10) The open operation is especially suited for cases over four years of age and for those of bilateral dislocation. (11) After the operation the limb should be put up in the position of maximum stability; in the majority of cases this will be similar to the Lorenz position. The limb should be put up in plaster of Paris immediately this is essential in order to insure stability of the head of the bone. (12) All tense structures should be stretched or tenotomised, as a preliminary measure, a week or so previously to the open operation. The after-treatment is identical with that of the Lorenz method.

5. Splenomegaly in Children.—Carpenter's article is based upon the observation of 348 cases of enlargement of the spleen in infants and young children. The condition is very frequent during the first six months of life, at the end of the first year, and at the end of the second year. Splenic enlargements in children up to six months of age occur in about forty per cent. of indisputable syphilitic infants. Craniotabes and chronic snuffles are often the only indications of a syphilitic taint. Many cases of splenomegaly are associated with rickets. But many cases of advanced rickets are free from splenic enlargement, and it is absent in the great majority of ricketty children. Children with splenomegaly are often not obviously anæmic. Petechiæ and bruises are common in very severe cases and often herald a fatal termination. The liver is enlarged in the majority of cases. The prognosis depends upon the condition of the blood. A great reduction in hæmoglobin and red cells is not hopeful. Leucocytosis, if considerable, is unpromising. Such children are apt to succumb to bronchopneumonia at any time. Treatment should be preventive, the provision of proper food and a hygienic environment. Rickets and syphilis require appropriate treatment.

7. Tuberculosis in Children.—Raw expresses the opinion that human and bovine tuberculosis are distinct varieties of disease, as shown by Koch, but that the human body is susceptible to

both, and especially to bovine tuberculosis in the early periods of life. The two diseases are so rarely seen together in the human that there seems to be some ground for presuming that they are antagonistic, and that bovine tuberculosis may possibly confer an immunity against human tuberculosis. Primary intestinal tuberculosis, *tabes mesenterica*, *scrofula*, tuberculous meningitis, and possibly acute miliary tuberculosis, are probably bovine tuberculosis conveyed by milk, and are not related to human tuberculosis, although the bacillus of Koch is found in them all and is indistinguishable.

PRESSE MEDICALE.

August 19, 1903.

1. Freyer's Method of Total, Transvesical Prostatectomy by the Suprapubic Route.
By JARVIS, and R. PROUST.
2. On a Form of Non-Congenital and Hereditary Ptosis.
By DELORD.
3. Mydriatics and Meiotics,
By J. TISSOT.

1. **Total Prostatectomy.**—Jarvis and Proust translate Freyer's description of his operation from the June *Practitioner*, and note that total ablation of the prostate, including the prostatic urethra, is rare, though possible, the operation of choice being paraurethral enucleation. In France this is known as *subtotal* prostatectomy, the suprapubic operation being rarely performed there. The authors compliment Freyer highly on his remarkable success.

2. **Hereditary Ptosis Developing Late in Life.**—Delord's three cases are remarkable in the strongly marked heredity and the fact that they developed between the ages of forty and sixty. The ptosis was double and not associated with any visual error or central nervous disorder, save in one case, where there was ataxic *tabes*. There is probably a special centre for the levator palpebri and in these cases there was a hereditary weakness aggravated by age.

3. **Mydriatics and Meiotics.**—Tissot says the general practitioner should familiarize himself with the action of these important drugs, and denies any superiority to oily solutions from the viewpoint of perfect sterilization. The inevitable pain from the use of collyria, even those containing cocaine, may be lessened by advising the patient to look up, while the lower lid is pulled down, so that the solution falls into the conjunctival *cul-de-sac*, and bathes the cornea later. The puncta lacrymalia should be compressed in order to prevent a not unlikely poisonous absorption. Tissot discusses at length the various theories regarding the mode of action of atropine, the mydriatic most used, and explains its use in phlyctenular keratitis or corneal impetigo, ciliary neuralgia, corneal herpes, corneal ulcers and abscesses, and particularly in iritis, whether of syphilitic or rheumatic origin, in which it should be pushed till the eye becomes white. When synechiæ supervene, atropine should be given for a month or more. In atheromatous subjects, atropine is not well borne. In cataract, although not curative, atropine increases visual power; it is used also before operating for cataract and afterwards to prevent adherence of the capsule to the iris. Mydriatics should be used in-

variably before examination for errors of refraction. In presbyopics, when atropine may develop a latent glaucoma homatropine should be used. Of the meiotics, eserine is the most useful, although pilocarpine is less irritating. Meiotics are indicated in corneal affections where perforation of the anterior chamber is feared; in traumatic mydriasis; in iridocyclitis; and especially in glaucoma, where in association with extract of the suprarenal gland, they may render surgical intervention unnecessary. After such operation, their use will prevent relapse. Diagnostically they are important in glaucoma, for if they fail to contract the pupil, operation is imperative. In artériosclerotics, they should be used on the appearance of retinal hæmorrhages.

August 27, 1903.

1. Malarial Fever in Algiers,
By H. GROS.
2. Arthriticism, and Its Relations to Diabetes; Albuminuric Diabetes,
By EDMOND FIQUET.

1. **Malaria in Algiers.**—Gros discusses an article by Soulié on this subject which appeared lately in *Presse médicale*, and sustains the theory that malaria is caused by anopheles, a theory which must be maintained in its integrity or absolutely rejected. Gros states that when the mosquito is scarce, malaria is also. This occurs in very hot weather as well as in cold. He quotes a number of native proverbs regarding the danger of bathing in certain rivers, the safety lying in keeping indoors at nights, etc., and correlates them all with the presence and habits of mosquitoes. As to prophylaxis, Gros says (a) it is apparently impossible to guard man against the mosquito's bite; (b) that quinine does not kill the hæmatozoa, but prevents their multiplication or renders malaria latent; it is valuable therefore for soldiers or travelers; (c) anopheles may be destroyed in the pools where they breed; this is difficult, for all the breeding places cannot be found; (d) there is a method of prophylaxis, however, which has delivered Northern Europe from malaria, and that is the sanitation of the soil, by drying marshes, drainage, cultivation, and irrigation. This should be tried in Algiers. Gros remarks on the absolute immunity of the full-blooded negro, due, he says, not to a peculiarity in the skin, since the mosquito infects them with *filaria*, but to some quality of the blood.

2. **Arthriticism.**—Fiquet says this is not a disease in itself, but a predisposition to certain diseases, diabetes, obesity, gravel, etc. It is the result of insufficient intracellular oxidation, and manifests itself according to the sort of oxidation that is lacking. When the oxidizing ferments which preside over the carbohydrates are absent, glycosuria is the result; if those that oxidize fat are lacking, obesity obtains; if those designed to oxidize the albuminoid residue of nutrition, do not exert their specific action with sufficient activity, another variety of diabetes, albuminuric diabetes is the consequence. The treatment is analogous to that of diabetes mellitus, save that it is albumen and not the carbohydrates that must be forbidden. Such a regimen, in the author's experience, will do much to ward off genuine Bright's disease, if undertaken before the characteristic symptoms appear.

VIRCHOW'S ARCHIV.

August 1, 1903.

1. Developmental Disturbances of the Kidney,
By ERICH MEYER.
2. Giant Fœtal Kidney and Its Relation to the Embryology
of the Kidney, By GEORG SCHENKL.
3. Kidneys with Inhibited Development, By C. BECK.
4. Histology of Accessory Pancreas, By C. THOREL.
5. Malakoplacia of the Bladder, By VON HANSEMANN.
6. Case of Acute Leucæmia, By A. JANUSZKIEWICZ.
7. Multiple Myeloma with Extension Into the Bone Mar-
row, By A. J. ABRIKOSSOFF.
8. Histogenesis of Retinal Glioma, By VITTORIO SCAFFIDI.
9. Sarcoma of the Dura Mater, By L. LICHTWITZ, JR.
10. Congenital Defect of the Heart, By E. SCHREIBER.
11. Congenital Epithelial Fistula of the Scrotum,
By W. PINCUS.

1. **Developmental Defects of the Kidney.**—Meyer describes the case of a female infant who had cleft palate, a bicorned uterus, atresia ani, and spotted kidneys. Parts of the kidney were normal in structure, but in other parts, while the malpighian corpuscles and tubuli recti were present the convoluted tubules were absent. Meyer regards this finding as an evidence that the canals of the kidney develop in two stages (*Anlagen*). His further examinations of spotted kidneys of calves and cystic kidneys of human beings, lead him to the conviction that cystic kidneys depend upon embryological defects and that these defective portions of the organs may later in life become the seat of neoplasms.

4. **Histology of Accessory Pancreas.**—Thorel describes seven cases of accessory pancreas. Three times the accessory organ was found in the stomach or intestine, and once a double accessory pancreas was found, one in the jejunum, one in its mesentery. Excretory canals were found in all instances leading into the intestine, except in the last one mentioned. Langerhans's islands were absent in all cases, probably through developmental inhibition. The author thinks that these accessory organs are due to splitting of the pancreatic embryological elements.

5. **Malakoplacia of the Bladder.**—Von Hanse-
mann describes a case in which he observed peculiar, flat, prominent, confluent, yellowish growths in the bladder which in places were ulcerating. The same growths were seen in the ureters, although during life there had been no clinical symptoms. The author could not reach the conclusion that a neoplasm was present and hence describes the condition under the name given.

7. **Multiple Myelomata.**—Abrikossoff records the case of a man, aged fifty-four years, who presented mainly a disease of the mediastinum. *Intra vitam*, the diagnosis of a malignant disease of the mediastinum with a secondary pleurisy was made. The autopsy disclosed a neoplasm of the sternum with metastases in the vertebræ and both humeri, which had started in the ribs, the sternum and the clavicle. Microscopically, the growth proved to be a myeloma.

9. **Sarcoma of the Dura Mater.**—Lichtwitz reports the case of a woman who had suffered from a severe contusion of the head nine months before her death. The author believes there is some con-

nection between the accident and the beginning of the growth; for, immediately following the trauma, the patient complained of severe headache, vertigo and tendency to syncope. The microscopical examination showed the growth to be a spindle-celled sarcoma.

10. **Congenital Defect of the Heart.**—Schreiber describes the case of a boy who gave signs of an enlargement of the cardiac area toward the right and left, with a loud systolic murmur heard over the entire heart, and an accentuated second pulmonic sound. Cyanosis and congestion were present. A diagnosis of mitral stenosis was made. The autopsy disclosed a congenital atresia of the right tricuspid valve, a widely open foramen ovale, dilatation and hypertrophy of the left auricle and ventricle. Further, there was an open duct of Botalli, a defect in the intraventricular septum and in the pulmonary valves.

BERLINER KLINISCHE WOCHENSCHRIFT.

August 10, 1903.

1. Some Aphorisms in the Treatment of Gun-Shot Wounds
of the Lung, By KÖNIG.
2. Acute Transverse Paralysis in Malignant Neoplasms
of the Vertebral Column, By NONNE.
3. Neutrophile Granulations in the Blood, By M. MOSSE.
4. Organotherapy in Endemic Cretinism,
By A. MAGNUS-LEVY.
5. Mosquitoes and Yellow Fever, By W. HAVELBURG.
6. Self-Protection in the Use of the X Rays, By C. BECK.
7. Use of Osmic Acid in Clinical Microscopy,
By C. POSNER.

1. **Treatment of Gunshot Wounds of the Lung.**—König believes, as a result of his experience, that gunshot wounds of the lung, especially when there is considerable hæmorrhage, should be more vigorously treated, as are similar wounds of the joints. Surgical intervention, except for the control of hæmorrhage, should be instituted shortly after the injury only in exceptional instances. Thoracotomy is indicated, if, two or three days after injury, fever, dyspnœa or symptoms of a flagging heart appear. The rise of temperature is often due to a pneumococcus infection. If there has been an extensive hæmorrhage, thoracotomy is advised, as the blood is very slowly absorbed. If the absorption extends over months, it can be hastened by frequent puncture.

2. **Neoplasms of the Spinal Column.**—Nonne reports a number of cases of sarcoma and carcinoma of the dura in which the action of the spinal nerves was interrupted by pressure to a greater or less degree. In another case, the development of a malignant growth of intramedullary origin, rapidly brought about a transverse paralysis. The author believes that the localized focal disease in these cases is evoked by a poison circulating in the blood and arising from the cancerous growth.

5. **Mosquitoes and Yellow Fever.**—Havelburg has searched for Sanarelli's specific organism of yellow fever, but has obtained only negative results, and has had similar results with his serum. The author then refers to Reed's work, showing that mosquitoes which had bitten yellow fever

patients usually infected non-immune persons with their bite, but infection with ordinary apparatus was not observed, although direct injection of blood brought about infection. Havelburg describes minutely this form of mosquito which belongs to the *Culex* group. The germ of yellow fever has not been isolated, either in the blood of the patient or in the insect.

7. Osmium in Clinical Microscopy.—Posner has tried Argutinsky's method of saturating specimens with the vapor of osmium and then permitting them to dry in the open air. They are then stained. The best results and most characteristic pictures are obtained with blood, urethral pus, urethral threads, prostatic secretion, spermatozooids, urinary sediments, sputum, and fæces.

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

August 6, 1903.

1. Clinical Test for Urobilin, By W. SCHLESINGER
2. Alimentary Lævulosuria in Hepatic Disease, By G. LANDSBERG.
3. Colopexia for Prolapse of the Rectum, By J. ROTTER.
4. Radical Removal of Cancerous Uterus and Vagina from Above, By W. HEIDEMANN.
5. Radical Operation for Inguinal Hernia, By TADAO HONDA.
6. Case of Vagina and Hymen Duplex, By BENNE MÜLLER.
7. Case of Duplicity of the Female Genitals, By PANKOW.
8. Traumatic Neuritis of Single Branches of the Cervical and Brachial Plexus, By E. BLOCH.

1. Clinical Test for Urobilin.—Schlesinger says that if urine is mixed with an equal quantity of a ten per cent. solution of zinc acetate in alcohol, and the resulting precipitate is entirely filtered, a beautiful fluorescence will result and very distinct absorption spectra can be seen, even if the urine contains little urobilin and considerable other coloring matter. The author has modified the test for fæces, ascitic fluid, and blood. When blood was present, even with intense urobilinuria, the result was always negative.

2. Alimentary Lævulosuria.—Landsberg gave one hundred grammes of chemically pure lævulose to twenty-one patients suffering from different diseases of liver, and also to seven healthy persons. Of the former nine showed the presence of lævulose in the urine, of the latter, four. The author comes to the conclusion that the assimilation of lævulose is an individual idiosyncrasy rather than due to a disturbance of hepatic function.

3. Colopexy for Rectal Prolapse.—Rotter says that the suture of two peritoneal surfaces usually lacks rigidity. In one case of rectal prolapse, he therefore sutured extraperitonically a piece of the intestinal peritonæum between the cut surfaces of the parietal peritonæum, and in another case he served the sigmoid to the pelvic cellular tissue. In both cases he achieved a good result, especially in the latter.

5. Radical Operation of Inguinal Hernia.—Honda has modified Bassini's operation as follows: After the removal of the twisted sac, the

connection between the peritonæum and the transversalis fascia is circularly separated for about four cm. The ends of the silk ligatures used to tie the sac are then carried upward between the peritonæum and the fascia through the entire muscular covering, and are tied above the aponeurosis of the external oblique muscle. In cases of femoral hernia, a similar method is followed.

ZENTRALBLATT FUER INNERE MEDIZIN

August 15, 1903.

1. Simultaneous Infection with Influenza and Typhoid Fever, By E. J. STOLKIND.

1. Simultaneous Infection with Influenza and Typhoid Fever.—Stolkind reports the case of a woman who was suddenly taken sick in a house in which there were two patients with typhoid fever and two with acute influenza. She had never had typhoid fever or rheumatism. On a review of the symptoms, it was not possible to say that she had a typhoid form of influenza complicated with an early lobular pneumonia, or that she suffered from typhoid fever with early pulmonary symptoms. For the diagnosis of influenza, spoke the sudden appearance of the disease with sneezing and coughing and the other catarrhal symptoms—angina, laryngotracheitis, and lobular pneumonia, the profuse sweating and the irregular temperature curve; in favor of typhoid fever, were the splenic enlargement, the roseola, the diarrhœa, tenderness, and gurgling in the ileocæcal region, the dicrotic pulse, and finally, the further course of the disease with a relapse. The case was undoubtedly one of mixed infection, the sputum repeatedly was found to contain Pfeiffer's bacillus, and the blood examination gave a Widal reaction in dilutions of one to ten and one to fifty.

REVISTA DE CIENCIAS MEDICAS DE BARCELONA

Year XXIX, No. 5, 1903.

1. Typhoid Septicæmia, By F. CORMINAS.
2. Indications for Surgical Intervention in Affections of the Stomach, By D. SALVADOR CALDENAL.

1. Typhoid Septicæmia.—Corminas discusses those atypical cases, called by the Italians typho-septicæmic, in which the clinical manifestations do not correspond to those of typhoid in general and, though the typhoid bacillus is found in the blood, the intestinal tract remains unaffected. The opinion held by clinicians that in typhoid infection the organism as a whole might participate in the morbid process, received its first confirmation from the work of Banti who, at the autopsy of a typhoid case in which the clinical history had differed widely from that of the ordinary form of the disease, found the intestine intact but discovered tumefaction of the spleen and mesenteric glands. From the latter, as well as from the spleen, he obtained cultures of the typhoid bacillus; and their presence in the glands was apparent by direct examination under the microscope. By these findings he established the existence of typhoid septicæmia; and he attributed the greater importance to the presence of the bacillus in the blood; considering the changes in the organs as secondary. Granting that the bacillus may find ingress to the organism at any

point of entrance, as do the germs of ordinary septicæmia, this infection may readily be explained. Thus, in the author's opinion, there is reason to believe that the typhoid bacillus may be carried by the blood to any organ (liver, spleen, brain, lung, etc.) and being there arrested, may produce a local infection. In other words, the bacillus may act as do the streptococcus and staphylococcus, causing a general septicæmia with local manifestations. Corminas believes that many cases of prolonged, irregular, undulating fever of no fixed type may be lighter forms of typhoid septicæmia without organic localization.

2. Surgical Intervention in the Stomach.—

Cardenal draws the following conclusions at the close of a lengthy paper dealing with this subject: (1) Surgical intervention is indicated in all cases of gastric disease in which the trio of pyloric symptoms—pain, vomiting, and retention of gastric contents—are typical and persistent, even though the nosological diagnosis has not been definitely established. (2) In every case in which a positive diagnosis of a neoplastic lesion has been made: especially if this is demonstrable by direct exploration, though the symptoms may be few or absent altogether: these sometimes appearing only in the late stages. (3) As the sole means of making a definite diagnosis and determining the medical or surgical treatment in doubtful cases in which the patient is wasting to an alarming degree; though the gastric symptoms may be obscure.

RIFORMA MEDICA

June 17, 1903.

1. On the Metabolism of the Carbohydrates. Physiological Carbohydraturia. By LUIGI FERRANNINI.
2. A Case of Angina and Croup Due to the Pneumobacillus of Friedländer, By E. CIONNINI.
3. Contribution to the Study of Ehrlich's Reaction, By CARMELLO DE BERNARDIS.
4. On the Bacteriology of the Blood and the Serum Agglutination of the Typhoid Bacillus in a Case of Exceedingly Prolonged Typhoid Infection. By NEREA PANE.
5. Infantile Typhoid. By LUCENE VIGNER.
6. Infantilism Without Loss of Thyreoid. The Organic Balance in a Case of Mitral Infantilism, By LUIGI FERRANNINI (To be concluded).

1. **Physiological Carbohydraturia.**—Ferrannini studies the presence of carbohydrates in the urine of persons not suffering from any disease of metabolism, and not undergoing any special treatment or diet. He used an old method, that of Baumann, in determining the amount of carbohydrates in the urine of a series of patients. This method is not the ideal one, but it is the best at present available for this purpose, the difficulty with it being that it precipitates some nitrogenous substances along with the carbohydrates. It consists of alkalizing the urine, and adding to a filtrate some solution of sodium hydrate (12 per cent.: 40 c. c. to each 100 c. c. of urine), as well as 4.5 c. c. of benzoyl chloride. The mixture is shaken for a few hours, filtered, the precipitate dried and weighed. The patients examined suf-

fered from a variety of diseases, pleurisy, heart disease, neurasthenia, etc. One patient had carcinoma of the liver and one had diabetes. The quantity of carbohydrates found in the urine of these patients varied from 0.62 to 36.35 grammes, the highest number being found in an old man with interstitial nephritis and diabetes, the lowest in a child of nine with chorea and simple anæmia. All the patients except the first of these two passed less than thirty grammes of carbohydrates daily. Of 42 persons only four exceeded 20 grammes daily. With the exception of the case of diabetes it may be said, therefore, that the disease from which the patient was suffering did not influence the amount of carbohydrates eliminated in the urine, save that in the case of carcinoma of the liver there was an especially marked amount of carbohydrates excreted. In the case of diabetes there was a large amount, in spite of the fact that the patient was on an anti-diabetic diet and did not eat much starchy food. In a subsequent article the author promises to show the varieties of carbohydrates eliminated by these patients.

2. Angina and Croup Due to Pneumobacillus.

—Cionnini says that in no disease does bacteriology help diagnosis so much as in tonsillar inflammations. The fact that diphtheroid membranes may be produced upon the tonsils by other germs than the diphtheria bacillus is now well known, and a variety of germs have been found in these exudates. During the past year the author has observed thirty cases of clinical diphtheria, in which ten were not due to the Klebs-Löffler bacillus. One of these, which presented all the features of a diphtheritic angina, showed the presence of the pneumobacillus of Friedländer. About twenty-four cases of this sort are at present on record. This germ is not a very frequent occupant of the normal mucous membrane of the mouth, for Netter, in 105 persons, only found it nine times, and Nicolle and Hebert only 24 times in 3,670 persons examined. The present patient was a boy eighteen months of age, who five days before admission began with redness in the throat, difficulty in swallowing, and in a short time developed pseudomembranes. The attending physician injected antidiphtheritic serum, but the child's condition grew worse, and he was sent to the hospital. The child showed all the signs of a very severe diphtheritic infection, with membranes on both tonsils and pronounced redness of the fauces, enlargement of the glands, etc. Stenosis of the larynx developed, and the general condition grew rapidly worse. Antidiphtheritic serum was injected and a culture was taken from the throat. As the child did not react, tracheotomy was performed, and a second culture was made from the pus issuing from the wound. After the operation the temperature fell, but rose again after two days, and the patient grew worse once more. He was removed from the hospital and died at home a few days later. The examination of the membranes showed the presence of the bacillus of Friedländer in almost pure culture. Nicolle and Hebert emphasized the tenacity and

the benignity of the germ in question, but while the author's experiments showed that the bacillus was very tenacious, he does not believe in its benignity from the observation of his case.

3. **Ehrlich's Diazo Reaction.**—Di Bernardo has studied the behavior of the urine to Ehrlich's diazo reaction in a great variety of diseases, and summarizes his findings as follows: In 28 cases of typhoid fever he obtained positive reactions both in the severe and in the mild forms. The reaction appeared on the sixth day of the disease, rarely later, and sometimes came on suddenly, sometimes gradually, at first giving a faint rose color and later becoming more intense, to culminate with the acme of the disease, and gradually to disappear as convalescence sets in. The author did not see any relationship between the intensity of the reaction and the diuresis, or the height of the fever, as has been asserted by Dolgoff. Neither was there any relation with the intensity of the infection. The greatest value of the reaction lies in prognosis, for if it disappears or becomes less marked after the second week, a favorable result may be expected. Its persistence after the fever subsides means a relapse or a complication. If the patient gets fever during convalescence from another cause than a relapse, the diazo reaction does not reappear. It is also a good diagnostic method aiding to distinguish between typhoid fever and conditions simulating it. Thus it was negative in 5 cases of febrile gastric catarrh, in 4 of intestinal catarrh, in 6 of febricula, etc. According to the author, salol does not influence the appearance of the reaction. In cases in which a dose of five grammes of salol is taken daily the reaction becomes less marked, but it reappears on the addition of an excess of reagent. In 37 patients with febrile diseases of various kinds the author found the reaction absent. In 220 cases of pulmonary tuberculosis he found that the diazo reaction was absent in the early stages, that it was present often in the later stages, and that it was a bad prognostic sign. It did not depend in any way upon the intensity of the fever, the degree of emaciation, or the number of bacilli expectorated. The presence of the reaction in pneumonia is a bad prognostic sign, speaking for a severe infection and a probably fatal prognosis. The author obtained the reaction both in the mild and in the severe cases of erysipelas, while Costa and Stadelmann state that they have met with it only in the severe cases. In puerperal infection the reaction was positive during the entire attack, and was proportionate to the degree of the infection. In empyema it was present before and after the operation. In a case of acute endocarditis the reaction was positive and remained so till within four days before death. It was positive in splenic leucæmia, and also in uræmia, and in the last named disease it continued to appear until the end. It increased in intensity as the condition of the patient grew worse. In cases of tumors it was almost always absent as long as there was no suppuration, but it appeared when there was any ulcerative process in the tumor. In anæsthesia with chloroform it did not appear.

4. **Bacillus of Typhoid in the Blood of a Patient After Nine Months.**—Pane reports a case in which a chronic febrile affection in a young girl was thought to be chronic malaria, but on examining the blood he found bacilli of typhoid fever, which showed all the characteristics of the bacillus found in the stools of typhoid patients, including the agglutination reaction. He concluded that this was a case of typhoid infection in which the germ persisted in the blood for an unusually long time. The girl had been suffering from daily fever elevations for nine months. The case proves once more the utility of bacteriological examinations of the blood in infectious diseases.

5. **Poisons in Burnt Skin.**—Verney has investigated experimentally on animals the question as to whether the skin of an animal subjected to a severe or extensive burn or scald contains toxic substances, which, if absorbed, cause symptoms of poisoning. The idea has of late grown into acceptance that there are toxins in the skin after a burn or a scald, which produce certain of the symptoms of such injuries in man, aside from the shock and the pain. The results obtained by the author were entirely negative, and he does not believe, judging from his researches, that there are such poisonous substances in the skin of a burn. The difficulties which he had to contend with in these experiments are considerable. He killed an animal, and subjected its skin to a high temperature. Then he prepared an extract of this burnt skin and injected it under aseptic precautions subcutaneously into another animal of the same species. Normal skin was used as check material. In many cases the latter was found to be more toxic than the burnt material. The difficulties of rendering these extracts aseptic were very great and various antiseptics were tried, with but incomplete success.

ROUSSKY VRATCH.

Journal de Médecine.

1. The Relation of Taste to the Needs of the Organism.
By P. J. BORISSOFF.
2. Hypnosis in Incurable Organic Diseases.
By A. A. P.
3. On the Question as to Vesical Suture. Twenty-four Cases of Suprapubic Incision. By V. V. ROSANOFF.
4. Fungoid Growths in the Lacrymal Canals.
By M. I. AVERCH.

1. **Taste in Relation to Bodily Needs.**—Borissoff says that every animal, including man, eats that food which it needs for the carrying on of its functions, and that instinct causes it to like that food best, because it produces a more pleasant sensation upon the nerves of taste; e. g., the well known propensity of herbivora to eat salt, to which carnivora are indifferent. In eating plants herbivora ingest freely potassium salts, which cause an increased elimination of sodium chloride. Every ranchman knows that the addition of common salt to the fodder of cattle produces an improvement in the well being of the animals. In man, also, nations that feed largely on animal food use much less salt than vegetarian tribes. The change in the taste for certain foods in women during pregnancy, and in girls during the development of puberty, are examples of altera-

tions in tastes according to the needs of the body. In children there often occur desires for various indigestible substances, such as chalk, charcoal, etc. In these cases the growing body craves certain salts, e. g., calcium, certain alkalies, such as those in unwashed coal, rich in lyes. The tendency of children to crave sweet and starchy foods is well known, and the author thinks that it also is due to the same law. Children play and move about a good deal, and so need carbohydrates for the supply of energy. Their heat radiation is also greater than in adults, as the body surface is comparatively greater. This also calls for carbohydrates. It is not right, therefore, to force children to eat more meat, as many physicians and parents do. The author has experimented on fowls, to show the working of this law of taste. He fed both hens and cocks on grain, water, and lime, each in separate receptacles, and daily weighed the lime left over, so as to determine the amount taken under different conditions. The cocks did not eat lime, while the hens did; the hens also kept up a certain average ingestion of lime, i. e., when they had not eaten enough one day they made up on the other days. This shows that the hens needed lime to produce egg-shells, and that they lost the desire for it from time to time, when they had had enough, but recovered this desire as soon as the stock of lime became low.

2. **Hypnotism in Diseases of the Nervous System.**—Pievnitsky pleads for the more extensive use of hypnotism in incurable diseases of the nervous system with an organic basis. Hypnotism in many cases gives the desired relief, and it is better to employ suggestive therapeutics than to allow these cases to fall into the hands of quacks.

3. **Suprapubic Lithotomy.**—Rosanoff reports 24 cases of stone operated on by the suprapubic method. This operation has by no means been superseded by lithotripsy, and much discussion has recently occurred as to whether the wound in the bladder should be closed or left open after removal of the stone. In the author's operations chloroform anæsthesia was used, after a thorough emptying of the bowels. This is a very important point, for the escape of feces is an especially unpleasant accident at these operations. The bladder was always filled with boric acid solution after anæsthetization. A vertical incision was used in the bladder, care being taken not to cut too far down to the pubis, as this renders the subsequent suture difficult. The stone was best removed with the finger or, if very rough and adherent, with forceps. The bladder was next washed in hot boric acid solution and if the organ was to be closed the sutures applied in two tiers, the lower being so inserted that the bladder mucosa was not perforated. The wound was held up by means of two supporting stitches on either side, so as to straighten it, while the sutures were being inserted. The second layer of sutures was inserted like Lembert's sutures. The lower tier of sutures was of catgut or absorbable reindeer tendon, so as to prevent stone formation around them in case one should become loose and

fall into the bladder. The superficial wound was closed and an iodoform gauze drain left in place at its lower angle. The suture of the bladder wall requires great care, and if the anæsthesia does not progress well, or the suture cannot be applied secundum artem, it is better to postpone the closure of the organ. A permanent catheter was used after operation in only one case, and the drain was removed after a few days, as soon as the bladder was found securely closed. The operations performed by the "open method" without sutures were chosen only where there was a special indication against closing the bladder. The wounds of the bladder in the other operations healed perfectly in all closed cases except one, i. e., in 94.1 per cent. The author concludes, therefore, that the closed operation is to be preferred, in the absence of contraindication, e. g., severe cystitis, very large stones, injury or tearing of the vesical wall during the operation, and intractable bleeding from the bladder.

MEDICAL RECORD.

September 5, 1903

1. Acute Bulbar Paralysis Due to Hæmorrhage and Softening of the Pons and Medulla,
By CHARLES L. DANA.
2. Abscess of the Left Temporo-sphenoidal Lobe of Otic Origin; Operation; Recovery, By E. GRUENING.
3. The Rational Treatment for Mouth-breathing,
By W. H. FITZGERALD.
4. The Internal Administration of Methylene Blue as an Aid in the Diagnosis of Urethroperineal Fistula,
By RICHARD LIGHTBURN SUTTON.
5. A Possible Case of Infant Poisoning as a Result of Abnormal Mental and Physical Condition in the Mother,
By CHESTER J. STEDMAN.
6. A Case of Smallpox in the Fœtus, By J. H. FRANKLIN.

1. **Acute Bulbar Paralysis.**—Dana's paper treats only of acute lesions of the pons and the medulla, due to hæmorrhage or softening. Including the bibliography, the paper covers fourteen pages. No abstract can therefore do the communication justice. We give only an idea of the ground covered. (1) *Hæmorrhage of the pons-medulla.* Pons hæmorrhages, as compared with cerebral hæmorrhages, are not more than 2 per cent. of the total. Hæmorrhages of the medulla are still more rare. The author has not himself seen a case of hæmorrhage of the medulla at autopsy. The author reviews (1) the history of the affection; (2) the points with regard to it that need further study; (3) the anatomy and physiology of the structures involved; (4) the ætiology of hæmorrhage; (5) the pathological anatomy; (6) the symptomatology; (7) two cases of hæmorrhage of the pons. The following is given as the symptom syndrome of pons lesions: (a) Headache, malaise, vomiting. (b) Sudden and profound coma. (c) Twitching of the face and limbs or both. (d) Meiosis and convergent strabismus or conjugate deviation (away from the side of the lesion). (e) Slow irregular breathing. (f) Irregular pulse. (g) Dysphagia. (h) Paralysis of limbs or crossed paralysis and exaggerated reflexes. (i) Gradual rise of temperature, sometimes to high point. (j) Death inside of twenty-four hours. (2) *Acute Softening of the Pons-medulla.* Thrombotic and embolic softening of the pons and

medulla is probably more frequent than hæmorrhages. The percentage of thrombotic softenings of pons and medulla to cerebral softenings is about 6. The history of the affection, its ætiology, and especially its symptomatology, are carefully considered. The symptoms are classified into three general groups: (1) The syndrome of medullary softening. (2) The syndrome of pons softening. (3) A general syndrome, including symptoms seen in lesions of both pons and medulla, or in lesions in which the focus, while lying mainly in one part, extends into the other. This latter symptom group is as follows: (1) Hemiplegia; (2) pain-temperature. (3) anæsthesia on the same side as hemiplegia; (3) loss of deep (muscular) sensibility, with ataxia, often on opposite side to hemiplegia; (4) lateropulsion to side of lesion; (5) paralysis of various cranial nerves, especially seventh to twelfth, on the side opposite to the hemiplegia; (6) dysphagia and dysarthria; (7) paralysis of sympathetic on same side as lesion, with meiosis and retraction of globe; (8) subjective sensations of vertigo, roaring in ears, parathria and pain; (9) disturbances in rhythm of pulse and respiration. The author's paper concludes with a study of special symptoms of acute pons-medulla softenings and with the report and discussion of a number of personal cases.

4. Methylene Blue in Diagnosis.—Sutton reports a case in which a positive diagnosis of urethral fistula was accidentally made owing to the dressings in a perineal wound being stained blue by the methylene blue that was being administered to the patient for his urethral discharge. The author believes that the intentional administration of methylene blue for diagnostic purposes should prove valuable, and suggests that it is particularly applicable to those cases in which a fistula communicating with the genito-urinary tract is suspected, or when the communicating channel is so tortuous and irregular as to prevent the passage of a probe.

6. Smallpox in a Fœtus.—Franklin reports the following case: A Mrs. M., seven months and a half pregnant, was exposed to smallpox. She was vaccinated. She developed no symptoms of any kind. At term she gave birth to a full term dead child bearing the lesions of smallpox in the pustular stage. The author thinks it improbable that the woman had suffered from variola.

September 17, 1903

1. Posttyphoid Sepsis. By FRANCIS DELAFIELD.
2. The Joint Complications of Acute Pyogenic Osteomyelitis, with Especial Reference to the Treatment of the Purulent Forms of Arthritis. By A. A. BERG.
3. Ancient Jibes at the Doctors. By JONATHAN WRIGHT.
4. Some Experiences with Ichthyol in Puerperal Fever. By J. D. MACPHERSON.
5. The Surgical Treatment of Colitis. By C. L. GIBSON.

1. Posttyphoid Sepsis.—Delafield asserts that the fevers that not infrequently follow typhoid are not real typhoid unless they are true relapses. To make a true case of typhoid there must be the bacterial infection plus the intestinal lesions. After the intestinal lesions have run their course other things may happen, due to the typhoid or other bacilli, but these other things are not typhoid fever. It is to the posttyphoid fevers that

the author wishes to call special attention. Such fevers are of three kinds: (1) The ordinary moderate rises of temperature, only lasting a few hours, occurring within three weeks after the end of typhoid fever. The only thing important about such fevers is to understand that they are of no importance. (2) The posttyphoid fevers which last for one or two weeks, but yet do not make the patient very ill and are not fatal. (3) The severe posttyphoid fevers which may run a long course. They occur regularly after well marked and severe typhoid fevers which run their full course in four weeks. The septic fever is continuous with the typhoid fever. Sometimes it overlaps it, so that both fevers seem to be going on together in the fourth or fifth week. Such fevers may prove fatal. The author gives numerous temperature charts to illustrate these different fevers. The third class of posttyphoid fevers described may be of great severity, the temperature rising to even 107° F. The practical points are these: first the patients must be fed and, second, they must be got out of bed; otherwise they will probably die. The author puts it thus: "Some of the patients improve on food alone, but in most of them there is no real convalescence until they are taken out of bed. Then they gain flesh and strength, even while the fever continues. It must be confessed that it requires a good deal of courage to take out of bed a patient who is apparently dying. But I am fully convinced that the only way of saving the life of the bad cases is to feed them and take them out of bed."

4. Ichthyol in Puerperal Fever.—MacPherson has treated five cases of puerperal fever, with brilliant success, by means of ichthyol. Two methods of using the drug were employed. Three patients had their uterus packed at intervals with gauze saturated with dilute ichthyol. Two of the patients had equal parts of ichthyol and glycerin, in one drachm quantities, injected into the uterus. The author sums up the results he has obtained as follows: "The remarkable results which have followed the use of ichthyol in these five cases, three of which were desperate ones, have led me to believe that it is a valuable remedy in this dangerous disease. The objection may be made that the packing had as much to do with patient's improved condition as the ichthyol, but in two of the cases reported no packing was used, and the drug was simply injected into the uterine cavity after free irrigation. I am aware that at least one case of severe depression following the application of ichthyol to the cavity of the uterus has been reported. But no such untoward symptoms appeared in any of the cases here mentioned. However all these patients were being well stimulated with strychnine and ammonium carbonate at the time. Instead of any unpleasant symptoms arising, exactly the opposite were observed; in fact, the drug acted like a specific. Not only were the pulse and temperature reduced, rigors ceased and discharge lessened, but patients had a feeling of well-being following the use of ichthyol, which was a pleasant contrast to the appearance of mental and physical suffering which one often witnesses in these cases."

MEDICAL NEWS.

September 5, 1903.

1. The Reduction in the Infant Mortality in the City of New York and the Agencies Which Have Been Instrumental in Bringing It About,
By ROWLAND G. FREEMAN.
2. Neglected Prophylactic Measures Against Diseases of the Respiratory Tract,
By D. H. BERGEY.
3. Puerperal Insanity,
By J. WILL PALMER.
4. The Adaptability of Western Texas Climate for the Treatment of Consumptives,
By C. H. WILKINSON.
5. Perineal Prostatectomy Without Opening Urethra or Bladder.—Unsatisfactory Result.—Subsequent Perineal Cauterization of *en collarette* Narrowing of Bladder Orifice.—Recovery,
By JOSEPH RILUS EASTMAN.
6. Mastoid Disease and Meningitis,
By SEYMOUR OPPENHEIMER.

1. **Infant Mortality in New York.**—Freeman prefaces his study of the infant mortality of New York city with a few general statistics of much interest. These show that, taking different countries, from one-tenth to one-third of all infants die during the first year. What this means among the poorer class will be readily seen when it is remembered that of babies born in good surroundings not one in one hundred dies during the first year. In Norway and Sweden, where infants are generally breast fed, the mortality is 106 per thousand, while in Bavaria and Würtemberg, where infants are usually bottle fed, the mortality is 329 per thousand. The figures for the United States (census of 1880 and 1890) show an encouraging state of affairs. The total infant mortality of the country has decreased in these ten years from 246.30 to 159.3 and that of the cities from 303.86 to 184.7. The mortality of colored infants is more than twice that of white infants. Thus, in the last census it was 397.2 in cities, as compared with 180.4 for white children. The bulk of the author's paper is devoted to the study of the question as it relates to New York city. A fair number of charts prevent the paper from being overloaded with figures. The author summarizes his conclusions as follows: (1) The infant mortality of all countries is shockingly high and this is shown to be unnecessary by the fact that infants that are well cared for show a very low mortality. (2) The influences that contribute to the high mortality are defective feeding, the active cause, heat and humidity and bad surroundings as contributory causes. (3) There has been a marked decline in infant mortality during the last ten years in the United States and especially in New York city, due, for the most part, to the decline in mortality from summer diarrhoea. (4) This striking decline in infant mortality is due to many agencies. The general adoption of pasteurization and sterilization of milk for infant feeding is by far the most important of these and applies to New York city and the whole of the United States. Other agencies in New York city are the improved city administration, the milk inspection of the department of health, the Straus Milk Charity, the fresh air work of St. John's Guild and similar charities, cleaner streets and asphalt pavements, the new small parks, playgrounds and recreation piers, the improved tenements and the use of diphtheria antitoxine.

2. **Prophylaxis of the Respiratory Tract.**—Bergey emphasizes only two particulars in which the prophylaxis against diseases of the respiratory tract needs urgent attention. One of the most fruitful causes of such diseases is dust. The other is deficiency in ventilation and lighting in our public schools. (1) Dust is hard to control, yet where it is produced as a by-product in the course of manufacture, much may be done by the introduction of improved machinery or by the use of suitable fans for the abstraction of dust from work shops. Street dust is harder to control, but much could be done by insisting on better pavements, more thorough street cleaning and systematic sprinkling. (2) Deficient ventilation and lighting act in two ways which are detrimental: (a) It reduces the resisting powers of the persons subjected to the unfavorable conditions and (b) the vitiated air poisons directly the mucous membranes.

3. **Puerperal Insanity.**—Palmer believes the following classification to be the most convenient one: (1) "Insanity of pregnancy, which is usually melancholia; (2) puerperal insanity proper, which comes on in a limited period after delivery and is usually in the form of mania, and (3) insanity of lactation, which is mostly melancholia." Each one of these forms is considered in some detail, and general advice is given with regard to treatment. Concerning puerperal insanity proper he has this to say of the prognosis: "The prognosis is favorable: 75 to 80 per cent. recover, but a large proportion die of exhaustion"—a statement which may not be altogether clear to some readers.

5. **Mastoid Disease and Meningitis.**—Oppenheimer asserts that the only hope in cases of meningitis of otitic origin lies in operative intervention. It is therefore important to know how such forms of meningitis arise and how they may be recognized clinically. As regards infection, practically but two forms of otitic meningitis may be considered; the first results from infection by absorption into the circulation, the other depends upon the extension of the inflammation by contiguity from the mastoid region to the dura and from there to the other membranes enveloping the brain. The former variety is rapid in its onset, usually diffused, and once established is necessarily fatal, while the latter form consists of a gradual process, usually localized in its incipency and when diagnosticated early is susceptible of cure by a radical operation. Purulent leptomeningitis is usually fulminating, sets in suddenly and terminates in but a few hours, or may continue before a fatal issue ensues for several days. While the localized focus analogous to an epidural abscess is more or less chronic, with mild symptoms which may apparently intermit from time to time before a regular course is established and which may last for several weeks or even months. When a mastoid empyema is about to infect the meninges there is almost invariably marked local pain, usually associated with fever. When such a condition occurs, especially in the presence of a diminished aura! discharge, the patient should be considered in serious danger of cerebral complications. The chief symptoms of meningeal irritation are headache, occasional nausea, vomiting, vertigo, moderate increase of temperature and some acceleration of the

pulse rate, while thirst, anorexia, and constipation are mostly complained of, but are not characteristic. Percussion of the skull affords but little evidence as it may be either painless or painful above and behind the auricle. The differentiation between meningeal irritation and true meningitis is almost impossible, although the latter may be recognized when the headache becomes persistent and is followed by the group of symptoms above mentioned with, in addition, drowsiness, delirium and stupor, while the pulse at first accelerated, later becomes retarded. Constipation as a rule is obstinate and specially so towards the end of fatal cases, while if diarrhœa is present or the bowels are normal, brain abscess and meningitis may, with a certain degree of assurance, be eliminated.

BOSTON MEDICAL AND SURGICAL JOURNAL

September 10, 1903.

1. Cancer of the Intestine, Etc.; Its Surgical Aspect, with Report of Cases, By HOMER GAGE.
2. The Relations Existing Between Respiratory and Intrapelvic Diseases, By DANIEL H. CRAIG.
3. Carcinoma of Choroid, Metastatic from Prostate, By ALLEN GREENWOOD.
4. A Case of Carcinosis with Secondary Nodule in the Eye, By E. E. SOUTHARD.
5. Mechanical Vibration: Its Theory and Application in the Treatment of Disease, By MAURICE F. PILGRIM.

1. **Cancer of the Intestine.**—Gage reports four cases of his own, all treated by operation, and reviews the results obtained by operative intervention by some of the best known surgeons, in cases of malignant disease of the intestine. He calls attention to the fact that the best results have been obtained where the tumor was situated about either the cæcum or the sigmoid flexure of the colon. In judging of the results of operative treatment, one must distinguish between immediate and eventual results. With this in mind the author asserts that operation should be performed early or not at all. He advises against palliative operations as tending only to prolong the patient's suffering. Colostomy and the various forms of intestinal anastomosis and exclusion should therefore only be resorted to under special circumstances. Colostomy may be necessary for the relief of acute intestinal obstruction, or under other conditions as a preliminary to restoration, but in advanced cases the patient had better be left to die in peace and as soon as possible. The author's advice may be summarized as follows: (1) In cases of chronic obstruction there is room for wide difference of opinion as to the advisability of operating. If operation is postponed until obstruction has become complete, or nearly so, operation will only serve to discredit surgery. (2) In cases where operation has been delayed until a palpable tumor can be demonstrated it is probably unjustifiable to resort to even an exploratory operation. (3) There probably is a time, in every case of cancer of the intestine, when the growth is local and can be removed with reasonable probability of a very long period of immunity. It is therefore important that the early symptoms of intestinal cancer should be more carefully studied and better understood. (4) Exploratory incision should be restricted to those cases in

which the earliest symptoms are those of acute intestinal obstruction, acute or chronic appendicitis, or of chronic intestinal disturbance in cases in which the presence of malignant disease is strongly suspected. (5) Exploratory incision should be followed by radical operation only in those cases in which the disease, so far as gross examination will enable one to judge, can be wholly isolated and removed. (6) Palliative operations are rarely justified.

2. **Respiratory and Intrapelvic Disease.**—Craig believes that he has found an additional cause for uncomplicated prolapse of the ovaries in the increased intraabdominal pressure which results from diseases of the respiratory tract. Cough, according to the author, produces two of the casual requirements of prolapse of the ovaries, *i.e.*, congestion and downward push on the ovaries. The occurrence of congestion he proves by quotations from numerous physiologies. The push on the ovaries he has attempted to measure by means of an instrument which he has named the pelviorespirometer. The instrument is not described in detail. It would appear, however, that what it really measures is the intraabdominal pressure, and not the downward pressure on any of the intraabdominal organs.

4. **Carcinosis with Secondary Nodule in the Eye.**—Southard's paper is the autopsy protocol and report of the microscopical findings of the case the clinical history of which is reported by Greenwood in a separate paper in this same journal. Southard concludes that from anatomical and histological evidence alone one would scarcely be warranted in assigning the prostrate as the original focus of tumor formation. But the case as a whole, taken clinically as well as pathologically, seems to warrant its interpretation as a case of carcinoma of the prostate with multiple metastases.

AMERICAN MEDICINE

September 5, 1903.

1. A Study of Uncinariasis in Porto Rico, By BAILEY K. ASHFORD, and W. W. KING (*To be concluded*).
2. The Significance of the Convulsion in Idiopathic Epilepsy, By J. W. WHERRY.
3. The Abuse of Inflation and Massage of the Middle Ear, By EMIL AMBERG.
4. A Case of Infectious Dermatitis in Chronic Morphinism, Accompanied by an Unknown Diplococcus Resembling Micrococcus Gonorrhœa, By PALMER H. LYON, and W. B. WHERRY (*Illustrated*).
5. The Antiseptic Qualities of Coffee, By W. H. CRANE, and ALFRED FRIEDLANDER.
6. On the Toxicity of Methyl Alcohol in Extracts and Medicines, By R. H. MAIN.
7. Historic Notes on the Laws Governing Civil Malpractice in the Ancient Times and the Middle Ages, By CHARLES G. COMSTOCK.

2. **The Convulsions in Idiopathic Epilepsy.**—Wherry asserts that "the epileptic convulsion is a shield, a defense, a safeguard, against the pernicious effects of an intoxication known as epilepsy. It is not a part of the disease. It is not a part of the intoxication. It is Nature's method of meeting the condition and averting impending danger, and status epilepticus is an intoxication

so deep and so profound that even repeated convulsions are inadequate and without avail." Epilepsy itself, according to the author, is a condition of selfintoxication which produces vasomotor spasm. The author attempts to prove his assertions by a rather lengthy argument, which few readers, we imagine, will find convincing.

3. Inflation and Massage of the Middle Ear.—Amberg believes that these two routine methods of treating non-inflammatory conditions of the middle ear are much abused. He treats his subject in a very cursory manner and concludes by making the following suggestions for the treatment of noninflammatory processes of the middle ear: (1) The use of the Siegle pneumatic ear speculum, especially for diagnostic purposes, is an absolute necessity. (2) Treatments should be continually controlled by hearing tests. (3) Local treatment of an injurious nature should absolutely be desisted from.

4. A Case of Infectious Dermatitis Due to an Unknown Diplococcus.—Lyon and Wherry report the following case: Chinaman, aged twenty years, for six years addicted to the hypodermic use of impure morphine. Was found, upon admission to a Philippine jail, to be suffering from an extensive and peculiar dermatitis, consisting essentially of groups of small rounded ulcers covered by thick scales. The patient, under local astringent and antiseptic treatment, made a good recovery in a short time. Bacteriological studies of the pus exuded by the ulcers seemed to show that the skin lesions were probably due to an unknown bacillus resembling the *M. gonorrhœæ*. Similar cases are said to be not infrequent in the east. The authors, however, have been able to find only one other case. A very complete account of the disease and its bacteriology is given.

5. The Antiseptic Qualities of Coffee.—Crane and Friedlander have found that even in ancient times, at all events as far back as 1721, coffee was considered to "be excellent in the time of pestilence and contributes greatly to prevent the spread of infection." They review the work that has been done up to the present time in the study of the deodorant and antiseptic properties of coffee, and conclude their paper with an account of their own experiments in this field of research. Infusions of green coffee, they find, have no antibacterial properties. Infusions of roasted coffee have. The latter are able to inhibit putrefaction and prevent the growth of many bacteria even in the most suitable culture media. To what coffee owes these qualities it is at present impossible to say. It is not probable that caffeine plays any part in the action of coffee upon bacteria.

6. The Toxicity of Methyl Alcohol.—Main has collected a number of cases in which the ingestion of methyl alcohol contained in such preparations as columbian spirits, lemon extract, Jamaica ginger, essence of peppermint, etc., has been followed by either death or total blindness. He concludes: (1) That methyl alcohol is an active and dangerous poison. (2) That it is capable of producing and has produced in numerous cases death and permanent blindness even when taken

in small quantities (Burnett 5.6 c. c.; Raub 7.5 to 18.5 c. c.). (3) That it is used extensively in substitution for grain alcohol and in the manufacture of extracts, spirits, and medicines, intended for internal use, and that its use is not suspected by the consumer. The author believes that the present unsatisfactory condition of affairs could be remedied by the adoption of the following suggestions: (1) To require every manufacturer to publish on every package the formula of the preparation, as is done in England. (2) To prosecute every one failing to do so. (3) To recommend a federal tax on methyl alcohol so that its substitution for ethyl alcohol will not be profitable.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

September 5, 1903.

1. Skiascopy as a Method of Precision,
By EDWARD JACKSON.
2. Retinal Disease Limited to the Region of the Fovea,
By HENRY GRADLE.
3. Neuroglia Tissue and Ependymal Epithelium in Teratoid Tumors,
By HENRY A. CHRISTIAN.
4. Hæmoglobinuric Fever, Its Causes and Treatment, with Especial Reference to the Use of Quinine,
By WALTER SHROPSHIRE.

1. Skiascopy.—Jackson by exact skiascopy would indicate: (1) The working at a distance of one-quarter to one-half metre. (2) The accurate measurement of the distance. (3) The adaptation of the source of light and the sight hole to the distance. (4) Care to bring the source of light close to the conjugate focus of the retina. (5) Means of fixing exactly the direction of the principal meridians. (6) Control testing, by departures both ways from the strength of the lens, focal distance, or meridian fixed on. (7) And, in general, precision and exactness in every detail.

3. Neuroglia Tissue and Ependymal Epithelium in Teratoid Tumors.—Christian writes an elaborate paper, which is adequately illustrated. He draws the following conclusions from his study: (1) Neuroglia is a common constituent of teratoid tumors. (2) Its structure in them is very varied, simulating many known forms. (3) Neuroglia is more intimately associated with mesoblastic tissues in teratoid tumors than elsewhere. (4) In such tumors occur isolated fibres and groups of fibres which stain like neuroglia, but whose nature can not be determined by the staining reactions of Mallory, Huber, and Benda, since these methods may stain other fibres than neuroglia fibres. (5) In many cells of these tumors occur small dots or groups of dots which have similar staining reactions to neuroglia fibres. (6) The presence of these dots in cells, though not absolutely diagnostic, may be considered as evidence in favor of the ependymal origin of the cells in which they occur.

4. Hæmoglobinuric Fever.—Shropshire has collected data with regard to 202 cases of hæmoglobinuric fever. Twenty-nine of these cases came under his personal observation. From a study of these cases he formulates the following conclusions: (1) This disease always occurs in persons suffering repeated attacks of malaria (this was so in every case reported). (2) It nearly always follows one

or more mild paroxysms of malaria at the proper time for its next exacerbation (there was but one exception to this reported). (3) It has all the characteristics of malaria, chill, fever, and sweat. (4) Where adequate examination of blood is made, the hæmatozoa of malaria are found (it was so in 41 per cent.). (5) Its habitat, that of most violently malarious districts (all cases reported were so) are sufficient to establish malaria as a causative agent, if not the only one. The author does not agree with those who believe that the hæmoglobinuria is due to the use of quinine. On the contrary, he strongly advocates quinine in large doses as the most efficient means of combatting the condition. He believes that many patients are lost, owing to the insufficiency of the doses of quinine so often employed. The average dose should be about 40 grains of quinine a day, preferably administered by hypodermic intravenous injection. When the patients are seen late, methylene blue, in doses of from 3 to 6 grains, should be combined with the quinine. The essential part of the author's paper is his advocacy of large doses of quinine. The discussion that follows the author's paper is of much interest, especially as there is not entire harmony between those that participated in it.

September 12, 1903.

1. Eye Complications of Smallpox. Some Observations During the Recent Epidemic in Cleveland,
By ALBERT RUFUS BAKER.
2. Cramp of the Ciliary Muscle Due to Eye Strain,
By JOHN W. WRIGHT.
3. Occurrence of the *Strongyloides Intestinalis* in the United States (*To be concluded*),
By MARSHALL LANGTON PRICE.
4. Should the Tuberculous Patient Know the Truth Regarding His Condition? By C. P. AMBLER.
5. The Influence of Consanguinity on the Organs of Special Sense,
By LEE WALLACE DEAN.

1. **Smallpox; The Eye Complications.**—Baker first considers the cause of the Cleveland epidemic. From 1880 to 1891 the city suffered from an antivaccination crusade. From 1898 to 1901 there prevailed a mild epidemic of variola. Then Dr. Heimlich became health officer for a short time and, by resorting to vigorous vaccination and quarantine, succeeded in stamping out the epidemic. However, owing to impure virus, there were many bad cases of infection and some deaths from tetanus. The antivaccination crusade began again, and Mayor Tom Johnson removed Dr. Heimlich and appointed Dr. Martin Fredrick in his place. Then came the epidemic of 1902 with its 1,248 cases and 224 deaths. Dr. Fredrick immediately commenced a vigorous crusade of house-to-house disinfection with formaldehyde. According to the author this was the result of such a change in policy: "Dr. Fredrick is a most efficient officer, a thoroughly educated gentleman, an indefatigable worker, with great patience and perseverance. He had placed at his command every resource to combat an epidemic without vaccination. A more competent man for such an undertaking could not have been found, and his complete and disastrous failure ought to be sufficient to close the mouths of every antivaccination-

ist in the country. There ought to be some way of disseminating this failure of Dr. Fredrick's disinfecting crusade in 1902 as wide as the reputed success of his efforts in 1901, which did not prove anything, as the epidemic had already been stamped out by vaccination before he assumed office. There was not a single case of smallpox in Cleveland when Dr. Fredrick took charge of the health office. The paper he read before the Academy of Medicine on How We Rid Cleveland of Smallpox, was unfortunate in its title, to say the least." The author reports 23 cases of eye complications due to smallpox. How many cases of eye complications there were in all, during the 1902 epidemic, it is not possible to say. The author believes that the total number of such cases was about 50. The following conclusions end the paper: (1) In view of the growing sentiment against vaccination almost any community is liable to experience an epidemic as disastrous as that through which Cleveland has just passed. (2) The eye complications of smallpox are greatly to be feared. The dangerous corneal complication is a secondary infection, commencing about the twelfth day, but many come much later. (3) The infection in the Cleveland epidemic was a streptococcus one, and different in no way from similar infection of the eyes of a patient already much exhausted from a serious disease. (4) No specific prophylactic treatment has been found, and the best that can be done is to keep the face and eyes in as nearly an aseptic condition as possible by frequent washing and the use of such antiseptics as will prove the least harmful to the eye.

4. **Should the Tuberculous Patient Know His Condition?**—Ambler concludes that he should. These are his reasons: "For the good of our tuberculous patients; for the protection of their friends and the public generally; for the protection of ourselves, both physically and from censure, let us fully inform our tuberculous patients as to their disease, and when so informed take the time to properly instruct them what to do and what to avoid."

General Paralysis and Pregnancy.—Soukhanoff (*Revue de médecine*, July 10th) says the combination of paralysis with pregnancy is a rare one. Christiani reports 23 cases in which pregnancy was believed to be the cause of the paralysis. The influence of pregnancy upon those who were already paralyzed when pregnancy took place is variable, in some cases the condition of the patients being improved, in others made worse, and in others no perceptible influence being apparent. Labor with those who are able to carry their children to term does not seem to be influenced unfavorably.

The case narrated by the author is as follows: Patient was twenty-two years old, probably of syphilitic antecedents. Conception did not take place until after paralysis had occurred. The course of her pregnancy was normal except that labor occurred two weeks before term. Delivery was normal, the child was small, and a series of epileptoid attacks continued for a week after delivery. Subsequently the paraplegia became complete.

Book Notices.

A Practical Treatise on Materia Medica and Therapeutics. By ROBERTS BARTHOLOW, M. A., M. D., LL. D., Professor Emeritus of Materia Medica, General Therapeutics, and Hygiene in the Jefferson Medical College of Philadelphia, etc. Eleventh Edition, Revised and Enlarged. New York and London: D. Appleton & Company, 1903. Pp. xxiv-866.

Various new articles have been added in this edition, and the same standard of excellence formerly shown has been maintained. The author, after devoting a few pages to the ways of absorption of medicine into the organism, takes up in order the action and uses of remedial agents, and also includes in this part a full description of the different drugs and agents used for therapeutic purposes. The same plan of dividing remedial agents into broad groups, according to their therapeutic action, is followed as in the previous editions. As regards this part, we wish to draw attention to the very excellent articles upon the metals, especially to those upon iron, arsenic, and mercury. The article upon alcohol and its preparations is most complete and excellent.

The last part of the book is devoted to tropical remedies. The book concludes with a very good clinical index, in which the remedies used in various diseases are briefly enumerated.

We feel it our duty to call attention to the facts that the general index of remedies is not satisfactory, and that the derivatives of numerous drugs are not mentioned specifically, the parent drug alone being given in the index in these cases. Many of the newer remedies are not treated of at all. With the exception of the points mentioned, the book is written most excellently and carefully, and contains a great deal of very valuable material.

Disease of the Pancreas: Its Causes and Nature. By EUGENE L. OPIE, M. D., Associate in Pathology in the Johns Hopkins University; Fellow of the Rockefeller Institute of Medical Research. Philadelphia and London; J. B. Lippincott Company. 1903. Pp. 5-359. (Price, \$3.00.)

Dr. Opie's work on the pancreas is so well known and has of late been so widely disseminated in the current medical press in connection with the medical congress at Washington, that its appearance in book form, an event of scientific importance, at this time does not call for an extensive notice. Yet the mere appearance of the book, the greater portion of it disclosing pioneer work, is of enough significance to render a cursory review, at least, necessary.

Opie devotes the opening chapters to the gross and minute anatomy of the pancreas, followed by exhaustive studies on the pathology of the organ and the variety of pathological conditions of which it is the seat. Finally, the symptomatology and treatment of the diseased pancreas are extensively considered.

Cholelithiasis and pancreatic disease are recognized—mainly through Opie's work—to be inter-related, the latter, at least, often depending upon

the former. By post mortem examinations and animal experimentation, Opie has established the fact that the common bile duct and the pancreatic duct may be converted into a single channel by the impaction of a calculus in the diverticulum of Vater, and the consequent pancreatitis by the invasion of bile is clearly portrayed.

The pancreas has long been an organ of obscurity and of mystery, medically as well as surgically. It is by means of studies like Opie's and Moynihan's, in England, that before long this organ will be as susceptible of examination, diagnosis, and surgical treatment as the gall bladder is now.

In discussing the question of the relation of pancreatic disease to diabetes, Opie says that it is now well established that considerably more than half the cases of diabetes are the result of a destructive lesion of the pancreas, due to an injury to the islands of Langerhaus, since the carbohydrate metabolism occurring in the pancreas is dependent upon these structures. Chronic interstitial inflammation is the most frequent lesion, due to arteriosclerosis or to toxic substances, such as alcohol. The invasion of malignant growths and the necrosis of acute inflammatory lesions may also lead to diabetes by destroying the interacinal islands together with the secreting parenchyma. From this citation it can easily be seen what an immense field of clinical observation, of therapeutics, and of surgical intervention is rendered possible by a more thorough and a more consistent study of disease of this organ. To these ends the work of Opie, deeply scientific as it is, is an incentive, and it is of a high didactic order.

Unlike many works on subjects in experimental medicine and pathology, this one has a decidedly practical bearing which is included in the last chapter, to which the reader is referred. The great clinical importance of pancreatic disease in itself and in connection with other diseases, renders it almost imperative for every physician to acquaint himself thoroughly with this work. While it is scientific, it is not dry or unintelligible, and its constant evidence of ground breaking work should be cause for the author to receive a full reward.

La pellagre. Par le Dr. GEORGES PROCOPIU. Avec 11 figures et 1 planche. Paris: A. Maloine, 1903. Pp. 149.

In this pamphlet the author has gone over the subject most carefully. After a few introductory remarks, an historical sketch of the disease and its geographical distribution is given, and maize and its preparations are described. This is followed by a complete description of the disease itself, including the pathological anatomy and the various complications, such as myelitis, dyspepsia, etc. The book concludes with chapters on prophylaxis and treatment.

As the disease is said to be caused by spoiled maize, the author points out that prophylaxis consists in carefully avoiding the use of unsound maize or its derivatives. The treatment is primarily prophylactic and symptomatic. To anyone interested in the subject we cannot recommend the book too highly for its completeness, conciseness, and general excellence.

Practical Points in Nursing for Nurses in Private Practice. By EMILY A. M. STONEY, Graduate of the Training School for Nurses, Lawrence, Massachusetts, etc. Third Edition, thoroughly Revised. Illustrated with 79 Engravings in the Text and 8 Colored and Halftone Plates. Philadelphia, New York, and London: W. B. Saunders & Company, 1903. Pp. 9 to 466. (Price, \$1.75.)

The third edition of this useful work finds it thoroughly revised. It is much larger than the preceding edition and contains much more minute accounts of the infectious diseases and of the treatment of poisoning. As we have previously said of the book, it supplements the training of the nurse in the hospital and gives her those practical hints which are indispensable for her in successful practice. Every nurse will find it to her advantage to know its pages thoroughly. It is as useful for reference as for gaining knowledge at first hand.

Transactions of the American Association of Obstetricians and Gynecologists. Vol. xv, for the year 1902. New York: Stettiner Brothers, 1903. Pp. lviii-381.

Besides the president's address, by Dr. Edwin Ricketts, this volume contains important papers by Dr. Charles L. Bonifield, Dr. Walter P. Manton, Dr. J. J. Gurney Williams, Dr. Frank F. Simpson, Dr. Walter B. Dorsett, Dr. Walter B. Chase, Dr. Joseph Price, Dr. Charles Greene Cumston, Dr. Herman E. Hayd, Dr. Joseph H. Branham, Dr. Albert Goldspohn, Dr. John B. Deaver, Dr. Miles F. Porter, Dr. William Wotkins Seymour, Dr. Magnus A. Tate, Dr. J. Henry Cartens, Dr. Lewis S. McMurtry, Dr. John B. Murphy (in collaboration with Dr. J. M. Neff), Dr. Rufus B. Hall, Dr. Henry Howitt, Dr. Albert Vander Veer, Dr. Augustus P. Clarke, Dr. Robert T. Morris, Dr. William H. Humiston, Dr. L. H. Dunning, Dr. Edward J. Ill, Dr. Charles S. Hamilton, Dr. William D. Porter, Dr. Edward T. Abrams, Dr. M. Stamm, Dr. Manning Simons, Dr. Sigmar Stark, and Dr. John W. Keefe. In addition, there is a memorial of the late Dr. James Thomas Jelks, by the secretary, Dr. William Warren Potter.

The association has amply demonstrated in past years its title to be reckoned as among our most important special societies, and this volume of its *Transactions* testifies to its continued usefulness.

The Principles of Obstetrics. A Practical Manual for the Student and General Practitioner. By STANLEY PERKINS WARREN, M. D., Portland, Me., Obstetric Surgeon to the Maine General Hospital, Consulting Physician to the Maine Eye and Ear Infirmary, etc. Profusely Illustrated. New York: William Wood & Company, 1903. Pp. xii-373. (Price, cloth, \$3.00; leather, \$3.75.)

While no one would deny that this book is in every respect one which reflects modern obstetric thought, it is so very superficial that one wonders why it was published. There are dozens of books like it, and this one contains nothing strikingly new to give it cause for existence. There is nothing in it that we would condemn, for the text is good and in harmony with advanced views; but we must repeat that we fail to understand why it ever saw the light of day.

BOOKS, ETC., RECEIVED.

The Wellcome Physiological Research Laboratories, Founded 1894. WALTER DOWSON, M. A., M. D., Director, Brockwell Hall, Herne Hill, London, S. E. Pp. 36.

Handatlas der Anatomie des Menschen. Mit Unterstützung von WILHELM HIS, Professor Der Anatomie an der Universität Leipzig, Bearbeitet von Werner Spalteholz, a.o. Professor an der Universität Leipzig und Custos Der Anatomischen Sammlungen Dritter Band 2. Abtheilung. Leipzig: Verlag von S. Hirzel. 1903. Pp. 869.

A Treatise on Diseases of the Anus, Rectum, and Pelvic Colon. By JAMES P. TUTTLE, A. M., M. D., Professor of Rectal Surgery in the New York Polyclinic Medical School and Hospital, Visiting Surgeon to the Almshouse and Workhouse Hospitals. With Eight Colored Plates and Three Hundred and Thirty-eight Illustrations in the Text. New York and London: D. Appleton & Company. 1903. Pp. xviii-961.

Manual of the Diseases of the Eye, for Students and General Practitioners. By CHARLES H. MAY, M. D. Chief of Clinic and Instructor in Ophthalmology, College of Physicians and Surgeons, Medical Department, Columbia University, New York—1890-1903—Ophthalmic Surgeon to the French Hospital, New York; Consulting Ophthalmologist to the Red Cross Hospital, New York; Adjunct Ophthalmic Surgeon to Mt. Sinai Hospital, New York, etc. Third Edition, Revised. With 275 original Illustrations, Including 16 Plates, with 36 Colored Figures. New York: William Wood & Company. MDCCCIII. Pp. xiii-408. Cloth, Price \$2.00 net.

Obstetrics, A Text-Book for the Use of Students and Practitioners. By J. WHITRIDGE WILLIAMS, Professor of Obstetrics, Johns Hopkins University; Obstetrician-in-Chief to the Johns Hopkins Hospital; Gynecologist to the Union Protestant Infirmary, Baltimore, Md. With Eight Colored Plates and Six Hundred and Thirty Illustrations in the Text. New York and London: D. Appleton & Company. 1903. Pp. xxii-345.

A System of Physiologic Therapeutics. A Practical Exposition of the Methods Other than Drug-giving. Useful in the Prevention of Disease and in the Treatment of the Sick. Edited by SOLOMON SOLIS COHEN, A. M., M. D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Medical College; Physician to the Philadelphia Hospital and to the Rush Hospital for Consumption, etc. Volume ix, Hydrotherapy, Thermotherapy, Heliotherapy, and Phototherapy. By Dr. WILHELM WINTERITZ, Professor of Clinical Medicine in the University of Vienna; Director of the General Polyclinic in Vienna, assisted by Dr. ALOIS STRASSER, Instructor in Clinical Medicine at the University of Vienna; and Dr. B. BUXBAUM, Chief Physician of the Hydrotherapeutic Institute in Vienna and Balneology and Crounotherapy by Dr. E. HEINRICH KISCH, Professor in the University of Prague; Physician at Marienbad Spa. Translated by AUGUSTUS A. ESHNER, M. D., Professor of Clinical Medicine in the Philadelphia Polyclinic, etc., and with notes on American springs by GUY HINSDALE, A. M., M. D., including Special Chapters on The Classification of Mineral Waters and their Distribution in the United States, by A. C. PEALE, M. D., Aid in the National Museum, Washington, D. C., in charge of Mineral Water Statistics of the United States Geological Survey; on the Practice of Phototherapy and Thermotherapy, by J. H. KELLOGG, M. D., of Battle Creek, Michigan; and on Saline Irrigation and Infusions, by HARVEY CUSHING, M. D., of Johns Hopkins Hospital, Baltimore; also an Appendix by the Editor. Illustrated. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1902. Pp. vii-570.

Le Dispensaire Antituberculeux (Avec 16 figures intercalées dans le texte) Par Le Docteur SAMUEL BERNHEIM, Président De L'Œuvre De La Tuberculose Humaine, Rédacteur en Chef De La "Revue Internationale De La Tuberculose." Rousset, Editeur. 36, Rue Serpente. 36 Paris. Pp. 102.

L'Administration Intestinale Des Médicaments (Etude Expérimentale et Clinique) Par M. Le Dr. SAMUEL BERNHEIM, Président De L'Œuvre De La Tuberculose Humaine, Rédacteur en Chef De La "Revue Internationale De La Tuberculose." Maloine, Editeur. 91, Boulevard Saint-

Miscellany.

Antidogmatic Dogmatism.—If it is true that science, or perhaps it would be more accurate to say scientists, have at times been unjustifiably dogmatic, it is none the less true that the "antis" are habitually dogmatic to an insufferable degree; it is second nature to them. And the scientist is at least dogmatic, ordinarily speaking, on affirmatives, which logically are susceptible of proof; while the "antis" seem to thrive on the proclamation of the universal negative, which, as every one with the least logical training knows, is absolutely unprovable. In the *Gazette médicale de Paris* for July 11th, Marcel Baudouin falls foul of a hospital obstetrician who has written, "I positively affirm that we can never know the laws that regulate or determine the origin of sex . . ." [which laws the author asserts to be due to a principle of autoregulation according to the requirements of the world.] "I can also assert that this autoregulation remains beyond the reach of our ken, and that it can never be modified by the will of man."

On these assertions Baudouin comments, very properly we think, as follows:

"It seems to us that such affirmations are very serious, not to say grave, coming from the lips of a hospital accoucheur of Paris; since he is a part of an organized body having for its function not only the establishment of a department of public assistance, but also the charge of obstetrical education—that is to say, of the scientific education of a goodly number of students in medicine.

"He has no misgiving, forsooth, in affirming in a technical memoir that Science will *never arrive* at a solution of a particular problem of biology. Why, it is the negation of science itself, this way of speaking of such phenomena as seem inexplicable to us for the time being! I lay no stress on the reasons given, which, according to the author, justify, from his point of view at least, his affirmation. They are, indeed, too much matters of philosophy—I will not say of religion—to allow of their discussion before readers who are men of science, and in the milieu of naturalism.

"Were it the case as argued, one would have to ask oneself whether one's vocation, the pursuit of truth, was an occupation worthy of a reasoning and reasonable man!

"If a single barrier of this kind faced us, there would be nothing more than a mere desire left to us; which would be to return to prehistoric times!"

The Origin of Pulmonary Phthisis and the Difference in the Formations which are Indicated by the Term Tubercle.—Aufrecht (*Zentralblatt für innere Medizin*, July 11, 1903, No. 28) seeks to demonstrate, as the result of histological studies, that the gray tubercle is occasionally formed by the proliferation of the endothelium of the vascular walls, that the caseation, on the other hand, does not play its part in the area actually occupied by the tubercle, but in the tissue removed beyond the circulation through the influence of the disease in the vessels. In regard to the method by which pulmonary tuberculosis originates it follows that the infection does not come by way of the air passage, but through

the blood. The bronchial glands are the principal source of infection, while the tonsils are the chief means for the entrance of the tubercle bacilli into the body. From these the infection spreads downwards by the lymph channels to the mediastinum. The inflammatory processes in the lungs in the vicinity of the tuberculous deposits are caused by the inhalation of irritating or infectious material. The most important factor in connection with actual tuberculosis is the individual predisposition. An abnormal porosity of the vessels seems present in such cases which permits the inward passage of the infectious material from the tonsils. The characteristic peculiarity of scrofula is also possible of a similar explanation.

Immunity.—Dr. Robert James Rowlette (*Dublin Journal of Medical Science*, May, 1903) contributes a very interesting article to this subject. Instead of developing any new ideas, he contents himself with putting in a concise form the data we at present possess. He lays stress on the fact that in all cases of artificial immunization, whether active or passive, the antitoxines do not persist, but pass away in the secretions. They are found both in the urine and in the milk. The immunity, however, is much more permanent, and while the antitoxines disappear in weeks or months, the immunity lasts for months, or more commonly years. In natural immunity, too, antitoxines are absent. Strictly speaking, therefore, immunity has no relation to the presence or absence of antitoxines, which are only concerned with the nullification of bacterial poisons, but have no power of protection against the bacterial invasion itself. The author develops at some length Ehrlich's *haptophore-toxophore* theory, and then asks whether, if the host can protect itself by producing *anti-bodies* which are injurious to invading parasites, the latter cannot also, produce *anti-anti-bodies*, which protect them. This is now established as a fact by Dr. Ainley Walker, who has succeeded in immunizing bacteria against immune serum by the simple expedient of growing them in it. Interesting subjects in this connection are the parallelism between bacterial toxins and certain vegetable poisons, as well as snake venom; the relations of heredity to immunity; and, above all, the bearing of the facts of immunity on the doctrine of natural selection.

Official News.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending September 12, 1903:

BACHMANN, R. A., Assistant Surgeon. Detached from the Naval Station, Cavite, P. I., and ordered to the Naval Station, Guam, L. I.

GATES, M. F., Surgeon. Detached from the *Atlanta* and ordered to the Naval Hospital, Philadelphia, Pa., September 21, 1903.

GROVE, W. B., Surgeon. Detached from the Naval Hospital, Philadelphia, Pa., and ordered to the *Atlanta*.

MURPHY, J. A., Assistant Surgeon. Detached from the *Celtic* and ordered home to await orders.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending September 5, 1903:

BISPHAM, W. M., First Lieutenant and Assistant Surgeon. Granted thirty days' leave of absence.

PYLES, H. T., First Lieutenant and Assistant Surgeon. Will upon arrival in New York with troops from Cuba proceed to Fort Totten, N. Y., for temporary duty.

WALES, PHILIP G., Major and Surgeon. Granted one month's leave of absence.

No changes in the Medical Department of the United States Army were reported for the week ending September 12, 1903.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the surgeon-general, Public Health and Marine Hospital Service, during the week ending September 5, 1903:

Smallpox—United States.		Cases.		Deaths.	
Places.					
California—Sacramento	Aug. 6-23	2			
California—San Francisco	Aug. 16-23	1			
Colorado—Denver	July 25-Aug. 15	6			
Illinois—Chicago	Aug. 22-29	4			2
Indiana—South Bend	Aug. 22-29	1			
Massachusetts—Fall River	Aug. 22-29	1			
Michigan—Marquette	Aug. 22-29	1			
Michigan—Port Huron	Aug. 22-29	1			
Mississippi—Natchez	Aug. 22-29	1			
New Jersey—Camden	Aug. 22-29	1			
Ohio—Dayton	Aug. 22-29	3			
Pennsylvania—Erie	Aug. 15-22	1			
Pennsylvania—Pittsburgh	Aug. 23-30	95		13	
Texas—San Antonio	July 1-31	14			
Utah—Salt Lake City	Aug. 15-22	1			

Virginia—Pocahontas	Aug. 22-29	1			
Wisconsin—Milwaukee	Aug. 22-29	2			
Philippine Islands—Manila	July 11-18	1		1	

Smallpox—Foreign.		Cases.		Deaths.	
Places.					
Belgium—Brussels	Aug. 8-15	3			
China—Shanghai	July 11-18	1			
Colombia—Barranquilla	Aug. 8-16	3			
France—Paris	Aug. 1-8	1			
Great Britain—London	Aug. 8-15	9			
Great Britain—Manchester	Aug. 8-15	1			
Gt. Britain—Newcastle-on-Tyne	Aug. 8-15	10		1	
Great Britain—South Shields	Aug. 8-15	1			
Great Britain—West Hartlepool	Aug. 8-15	2			
India—Bombay	July 28-Aug. 4	9		5	
Mexico—Mexico	Aug. 16-23	9		5	
Russia—Moscow	Aug. 1-8	2		1	
Russia—Odessa	Aug. 8-15	1			

Yellow Fever—United States.		Cases.		Deaths.	
Places.					
Mississippi—Gulf Quarantine	Sept. 1	1			

Yellow Fever—Foreign.		Cases.		Deaths.	
Places.					
Colombia—Panama	Aug. 17-24	3		1	
Costa Rica—Limon	Aug. 13-30	4		2	
Costa Rica—San Jose	Aug. 13-30	2			
Costa Rica—Zent	Aug. 13-30	4			
Mexico—Mexico	Aug. 16-23	1			
Mexico—Linares	Aug. 24	14			
Mexico—Merida	Aug. 9-15	10		5	
Mexico—Progreso	Aug. 15-22	2			
Mexico—Monterey	Aug. 26	1			
Mexico—Tampico	Aug. 16-22	19			
Mexico—Tehuantepec	Aug. 9-15	4		3	
Mexico—Teran	Aug. 27	Present.			
Mexico—Salina Cruz	Aug. 9-15	3		2	
Mexico—Valladolid	Aug. 9-15	1			
Mexico—Vera Cruz	Aug. 8-15	53		15	
Mexico—Vera Cruz	Aug. 15-22	59		29	

Cholera—Insular.		Cases.		Deaths.	
Places.					
Philippine Islands—Manila	July 11-18	7		7	
Philippine Islands—Provinces	July 11-18	1,369		825	

Cholera—Foreign.		Cases.		Deaths.	
Places.					
China—Hongkong	July 15-22	1			
India—Calcutta	July 25-Aug. 1	12			
Turkey—Damascus	July 21-Aug. 4	21			
Turkey—Damascus	Aug. 4-18	36			
Turkey—Damascus Province	July 21-Aug. 18	312			
Turkey—Tripoli	July 25	Present.			

Plague—Insular.		Cases.		Deaths.	
Places.					
Hawaii—Honolulu	Aug. 18	1			
Philippine Islands—Manila	July 11-18	1			

Plague—Foreign.		Cases.		Deaths.	
Places.					
China—Hongkong	July 1-12	18		9	
India—Bombay	July 25-Aug. 4	109			
India—Calcutta	July 25-Aug. 4	12			
India—Karachi	July 25-Aug. 4	2			

Smallpox—United States.		Cases.		Deaths.	
Places.					
California—Los Angeles	Aug. 22-29	2			
Illinois—Chicago	Aug. 30-Sept. 5	2			
Massachusetts—Fall River	Aug. 22-29	1			
Ohio—Cincinnati	Aug. 29-Sept. 4	2			
Ohio—Dayton	Aug. 30-Sept. 5	1			
Ohio—Toledo	Aug. 30-Sept. 5	1			
Pennsylvania—Pittsburgh	Aug. 8-15	46		15	
South Carolina—Charleston	Aug. 30-Sept. 5	1			

Smallpox—Foreign.		Cases.		Deaths.	
Places.					
Belgium—Antwerp	Aug. 8-22	3			
Brazil—Rio de Janeiro	July 25-Aug. 9	22			
British Guiana—Demarara	July 4-18	3			
Canada—Vancouver	Aug. 1-31	1			
Colombia—Barranquilla	Aug. 16-23	4			
Colombia—Bocas del Toro	Aug. 18-25	1			
Great Britain—Dundee	Aug. 15-22	1			
Great Britain—Leeds	Aug. 8-29	24			
Great Britain—Liverpool	Aug. 15-22	10			
Great Britain—London	Aug. 15-22	13			
Gt. Britain—Newcastle-on-Tyne	Aug. 15-22	5		1	
Great Britain—South Shields	Aug. 15-22	2			
Great Britain—West Hartlepool	Aug. 15-22	1			
India—Bombay	Aug. 4-11	8			
India—Calcutta	Aug. 1-8	1			
Italy—Catania	Aug. 20-27	1			
Mexico—Vera Cruz	Aug. 22-29	2			
Russia—Moscow	Aug. 8-15	1			
Russia—Odessa	Aug. 15-22	3			
Russia—St. Petersburg	Aug. 8-15	3			
Straits Settlements—Singapore	July 11-18	1			
Turkey—Constantinople	Aug. 16-23	1			
Turkey—Smyrna	July 19-Aug. 8	60			
Venezuela—Maturin	Aug. 17	Present.			

Yellow Fever.		Cases.		Deaths.	
Places.					
Brazil—Rio de Janeiro	July 25-Aug. 9	5			
Colombia—Bocas del Toro	Aug. 24-31	2		1	
Costa Rica—Limon	Aug. 20-27	2		1	
Mexico—Citas	Aug. 23-29	15		7	
Mexico—Coatzacoalcas	Aug. 22-29	1		1	
Mexico—Merida	Aug. 16-29	21			
Mexico—Progreso	Aug. 16-22	2		1	
Mexico—Tampico	Aug. 16-29	30		26	
Mexico—Tehuantepec	Aug. 16-29	8			
Mexico—Salina Cruz	Aug. 16-29	10		6	
Mexico—Vera Cruz	Aug. 22-29	61		15	

Cholera.		Cases.		Deaths.	
Places.					
China—Amoy	July 18-Aug. 1	650			
India—Bombay	Aug. 4-11	3			
India—Calcutta	Aug. 1-8	9			
Straits Settlements—Singapore	July 4-11	2			

Plague—Insular.		Cases.		Deaths.	
Places.					
Philippine Islands—Cebu	Sept. 3	Present.			

Plague—Foreign.		Cases.		Deaths.	
Places.					
Bolivia—La Paz	Aug. 13	Present.			
Brazil—Rio de Janeiro	July 25-Aug. 9	8			
China—Amoy	July 18-Aug. 1	100			
China—Hongkong	July 18-25	13		11	
India—Bombay	Aug. 4-11	56			
India—Calcutta	Aug. 1-8	9			
Peru—Arequipa	Aug. 13	Present.			
Peru—Molendo	Aug. 13	Present.			
Peru—Pacasmayo	Aug. 13	Present.			
Straits Settlements—Singapore	July 4-11	13			

Public Health and Marine Hospital Service:

Official List of the Changes of Station and Duties of Commissioned and Non-commissioned Officers for the Public Health and Marine Hospital Service for the Fourteen Days ending September 3, 1903

AMESSE, J. W., Assistant Surgeon. Upon being relieved from duty at Jolo, P. I., to proceed to San Francisco, Cal., and report arrival by telegraph.

BEAN, L. C., Acting Assistant Surgeon. Granted leave of absence for two days from September 4th.

CARTER, H. R., Surgeon. Bureau letter granting Surgeon Carter leave of absence for thirty days from August 4th, amended so as to read twenty-four days from August 5th.

CREEL, R. H., Assistant Surgeon. Relieved from duty at Immigration Depot, New York, N. Y., and directed to proceed to Manila, P. I., and report to Passed Assistant Surgeon V. G. Heiser for duty.

ECHEMENDIA, D. M., Acting Assistant Surgeon. Granted leave of absence for seven days from August 20, 1903, on account of sickness, under paragraph 210 of the regulations.

FRANCIS, EDWARD, Assistant Surgeon. Relieved as temporary chairman of the working party No. 2, Yellow Fever Institute, and directed to report to Passed Assistant Surgeon M. J. Rosenau as member of working party No. 2, upon his arrival at Vera Cruz, Mexico.

FRICKS, L. D., Passed Assistant Surgeon. To proceed to Baltimore, Md., and report to Surgeon H. R. Carter for temporary duty in connection with the inspection of immigrants at that port.

GASSAWAY, J. A., Surgeon. Department letter granting Surgeon Gassaway leave of absence for two months from August 10th, amended to read two months from August 13th.

GIBSON, L. P., Acting Assistant Surgeon. Granted leave of absence for six days.

GLOVER, M. W., Assistant Surgeon. Granted leave of absence for one month from September 8th.

HOLT, J. M., Assistant Surgeon. Upon being relieved from duty at Honolulu, T. H., to proceed to Manila, P. I., and report to Passed Assistant Surgeon V. G. Heiser for duty.

HUNTER, S. B., Acting Assistant Surgeon. Granted leave of absence for six days.

KIMMET, W. A., Acting Assistant Surgeon. Granted leave of absence for two weeks from August 25th.

MACDOWELL, W. F., Pharmacist. Granted leave of absence for thirty days from September 14th.

MAGRUDER, G. M., Surgeon. Granted leave of absence, on account of sickness, for thirty days from September 7, 1903, or so much thereof as may be necessary.

MORRIS, G. A., Pharmacist. To report to chairman of board of examiners at Fort Stanton, N. Mex., September 12, 1903, for examination to determine his fitness for promotion to the grade of pharmacist of the second class.

O'REILLY, W. J., Acting Assistant Surgeon. Granted leave of absence for three days from September 8th.

PARKER, H. B., Passed Assistant Surgeon. Relieved from temporary duty at Washington, D. C., and as chairman of working party No. 2, Yellow Fever Institute, and directed to report to Passed Assistant Surgeon M. J. Rosenau, and to proceed to Vera Cruz, Mexico, for duty under his direction.

PETERS, R. H., Acting Assistant Surgeon. Granted leave of absence for twenty days from August 4th.

ROSENAU, M. J., Passed Assistant Surgeon. Detailed as chairman of working party No. 2, Yellow Fever Institute, and directed to proceed to Vera Cruz, Mexico, for special temporary duty in connection therewith.

SIEDENBURG, F., Pharmacist. Granted leave of absence for thirty days from September 5th.

STANSFIELD, H. A., Assistant Surgeon. Upon being relieved from duty at Mariveles, P. I., to proceed to San Francisco, Cal., and report arrival by telegraph.

STEARNS, W. L., Pharmacist. Granted leave of absence for thirty days from September 8th.

STONER, G. W., Surgeon. Seven days' leave of absence from August 29, 1903, under paragraph 189 of the regulations.

VOGEL, C. W., Assistant Surgeon. Relieved from duty at San Francisco, Cal., and directed to proceed to Manila, P. I., and report to Passed Assistant Surgeon V. G. Heiser for duty.

WHITE, M. J., Passed Assistant Surgeon. Relieved from duty at Portland, Ore., and directed to proceed to Honolulu, T. H., and report to medical officer in command for duty, relieving Assistant Surgeon J. M. Holt. Granted leave of absence for three days from September 5th.

WILLE, C. W., Assistant Surgeon. Upon completion of duties at Baltimore, Md., to proceed to Philadelphia, Pa., and assume temporary command of service at that port during absence, on leave, of Surgeon F. Irwin.

WOODWARD, R. M., Surgeon. Two days' leave of absence from August 20, 1903, under paragraph 189 of the regulations.

Boards Convened.

Board convened to meet at Fort Stanton, N. M., September 12, 1903, for the examination of Pharmacist G. A. MORRIS to determine his fitness for promotion to the grade of pharmacist of the second class. Detail for the board—Surgeon P. M. CARRINGTON, chairman. Assistant Surgeon J. W. TRASK, recorder.

Board convened to meet at Washington, D. C., on call of the chairman to consider certain matters relative to uniform regulations of the service. Detail for the board—Assistant Surgeon-General A. H. GLENNAN, chairman. Assistant Surgeon-General G. T. VAUGHAN.. Assistant Surgeon-General H. D. GEDDINGS, recorder.

Births, Marriages and Deaths.

Married.

BEAM—GREENE.—In Buffalo, N. Y., on Friday, September 11th, Mr. Franklin E. Beam and Miss Gertrude L. Greene, daughter of Dr. S. S. Greene.

BOWS—SAILE.—In Bloomfield, N. J., on Monday, September 14th, Mr. Charles Bows and Miss Edith Louise Saile, daughter of Dr. Joseph C. Saile.

HASSIG—ARMENTROUT.—In Kansas City, Kansas, on Wednesday, September 2d, Dr. John Franklin Hassig and Miss Carrie Blanche Armentrout.

HURD—REED.—In Cedarhurst, Long Island, on Tuesday, September 8th, Dr. Lee Maidment Hurd and Miss L. Violet Reed.

LAUGHLIN—KING.—In San Francisco, California, on Tuesday, September 1st, Dr. Clyde Briggs Laughlin and Miss Mary Louise King.

MILLMAN—GOLDBECK.—In St. Louis, Missouri, on Wednesday, September 2d, Dr. John J. Millman and Miss Frances Goldbeck.

PALMER—WALKER.—In Geneva, Ohio, on Tuesday, September 1st, Dr. Darwin G. Palmer and Miss Bessie Walker.

SMITH—WALES.—In Binghamton, N. Y., on Tuesday, September 8th, Dr. Charles Hendee Smith and Miss Grace Wales.

WHITTAKER—NELSON.—In Kansas City, Missouri, on Wednesday, September 9th, Dr. J. H. Whittaker and Miss Mary Nelson.

Died.

AUSTIN.—In Chicago, Illinois, on Monday, September 7th, Dr. K. O. Austin, in the thirty-ninth year of his age.

BALLOU.—In Monument, Colorado, on Tuesday, September 1st, Dr. Henry S. Ballou, in the fifty-sixth year of his age.

CAMERON.—In Pony, Montana, on Friday, September 4th, Dr. Harry De Haven Cameron, in the thirty-eighth year of his age.

EDMONSTON.—In Brooklyn, N. Y., on Tuesday, September 8th, Dr. R. Howard Edmonston.

HIBBERD.—In Richmond, Indiana, on Tuesday, September 8th, Dr. James Farquhar Hibberd, in the eighty-eighth year of his age.

JOSSLYN.—In Philadelphia, Pa., on Sunday, September 13th, Dr. Eli E. Josselyn, in the fifty-seventh year of his age.

KING.—In Jacksonville, Florida, on Wednesday, September 9th, Dr. C. L. King, in the fifty-fifth year of his age.

MOWRIS.—In Lafayette, Onondaga County, N. Y., on Wednesday, September 2d, Dr. Mowris, in the seventy-fifth year of his age.

OLIVER.—In Paris, France, on Friday, September 11th, Dr. Joseph P. Oliver, of Boston, in the fifty-ninth year of his age.

RICHARDS.—In Milwaukee, Wisconsin, on Thursday, September 3d, Dr. John F. Richards in the eighty-eighth year of his age.

RICHARDSON.—In Detroit, Michigan, on Thursday, September 3d, Dr. Samuel Richardson, in the fifty-ninth year of his age.

SCHNETTER.—In Herrenalb, Würtemberg, Germany, Dr. Joseph Schnetter, of New York, in the eighty-third year of his age.

STEVENSON.—In Nicholson, Mississippi, on Tuesday, September 8th, Dr. George W. Stevenson, in the twenty-seventh year of his age.

WALTON.—In London, England, on Tuesday, September 8th, Dr. Luis Walton, of New York, in the fifty-third year of his age.

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Original Communications.

THE GASTRIC CONTENTS IN GASTROPTOSIS.

By THOMAS R. BROWN, M. D.,

BALTIMORE,

The subject of gastroptosis, or descensus of the stomach, has recently been given considerable attention. This has been mainly due to the fact that the various manifestations of enteroptosis are now studied much more carefully, and when any one abdominal organ is displaced a careful examination is often made to determine whether other of the abdominal viscera share in this displacement. It seems rather remarkable that, although Glénard insisted that in the great majority of cases displaced kidneys were but a part of a general enteroptosis, and although it has been recognized by all observers that the gastrointestinal symptoms are usually the most marked manifestations of enteroptosis, so little work has been done in regard to the motor, chemical, and sensory disturbances of the stomach in this condition. Riegel believes that gastroptosis in the majority of cases does not affect the gastric secretions, and it is only when it is associated with dilatation that the secretory or motor power of the stomach, or the sensitiveness of its mucous membrane, is affected. Kussmaul believes that it very frequently affects the motor powers of the stomach, and this, it seems to us, is most probable, as in either the vertical or sub-vertical position of the stomach the two common displacements, then must be anatomically an increase in the difficulty of propelling the food from the stomach into the duodenum. Kussmaul reports a case in which such obstruction existed to the exit of food, due to dislocation of the organ and to the bending of the superior duodenic flexure, that spasmodic pain and vomiting resulted, the attacks being very severe; and we have met with a similar case.

According to Steele and Francine there is no condition of the gastric contents peculiar to gastroptosis, although absence or diminution of the free hydrochloric acid is the rule; in a few cases

the amount was normal, but hyperacidity was rare, and usually occurred in cases where general dilatation existed and where there was a strong neurotic taint.

During the past few months we have made the analysis of the stomach contents in 20 cases of gastroptosis. In all these cases there was displacement to a greater or less extent of some other of the abdominal viscera as well. In 5 of these cases the descensus was associated with a high degree of dilatation of the stomach, while of the other 15 marked dilatation was present in none; in fact in the great majority the stomach seemed to be slightly, if at all distended, although in some there was a slight dilatation in the pyloric extremity.

In all cases the size, shape, and position of the stomach were determined by distention of the stomach with sodium bicarbonate and tartaric acid, while examination of the gastric contents was always made one hour after the administration of the Ewald test meal. The total amount of free hydrochloric acid was determined in all cases by titration with decinormal sodium hydroxide solution, dimethylamidoazobenzol being used as the indicator, while in the majority of cases the total acidity also was determined, phenolphthalein being used as the indicator. For purposes of comparison we have divided the 20 cases into three series: (a) Those with slight or no dilatation; (b) those with a moderate degree of dilatation; and (c) those with considerable or extreme dilatation.

We have expressed the acidity in all cases in terms of the number of cubic centimetres of the decinormal sodium hydrate solution required to neutralize 100 cubic centimetres of gastric juice (although for obvious practical reasons only 10 cubic centimetres were usually titrated). The amount of hydrochloric acid in the cases in series a was respectively 50, 0, 29, 21, 10, 29, 8, 24, and 10, while the total acidity in series a. was 65, 40, 50, 40, 31, and 35. Of this series eight were women, one was a man. As regards the symptoms, four had pain, in one case slight, in the other three cases severe and paroxysmal. All had various symptoms of indigestion—eructation of gas, a feeling of fullness and poor appetite, while in seven of

the nine cases constipation was present. All the patients were distinctly neurasthenic.

The amount of hydrochloric acid in the cases of series *b*. was 0, 0, 10, 30, 24, 0, while the total acidity was 40, 75, 60, 70, 65, and 35, respectively. Of this series three were women, three were men; in all a moderate degree of dilatation of the stomach was present. Two of the men and all the women were markedly neurasthenic. All had marked symptoms of indigestion and dyspepsia. The three women were constipated, and the two men, who were markedly neurasthenic, had mucous colitis; the other member of this series, that is, the man who only complained of severe indigestion, had a normal condition of the bowels. Two of the patients complained of a moderate amount of pain in the epigastrium.

In the cases of series *c*, that is, where marked, and in some cases enormous, dilatation of the stomach was present, the free hydrochloric acidity was 31, 0, 0, 0, 0, respectively, and the total acidity 80, 85, 69 and 95. All these patients were thin and some markedly emaciated; all were women. All were neurasthenic, though by no means so much so as either series *a* or series *b*. The vomiting of large amounts of fermenting material took place frequently in two of the cases. Slight pain in the epigastrium was present in one, paroxysmal attacks of severe pain in three. In four of the cases the bowels were markedly constipated; one patient had mucous colitis. Lactic acid was present in a number of these cases, but there was no evidence of tumor, and displacement of all the abdominal viscera in a marked degree was present in each case; carcinoma *gastri* on this account was not considered probable.

Of the eight women in series *a* two were married and had borne children, while two were married but had never borne children; four were single. Of the three women in series *b* two were single, and one was married and had borne seven children. In series *c* two were single, the other three were married, and had each borne two or more children.

The average amount of free hydrochloric acid in series *a* was 20, in series *b* was 14, and in series *c* was 6.2.

Although this series is a small one, our figures would seem to suggest that in simple gastropnothis there is a slight diminution in the amount of free hydrochloric acid in the majority of cases; in cases where the dilatation is slight the free hydrochloric acid is further reduced, although not markedly so, while in those cases associated with marked dilatation an absence of free hydrochloric acid is the usual occurrence.

These findings, therefore, would suggest that

gastropnothis *per se* leads to a very slight diminution of the free hydrochloric acid, and it is the subsequent dilatation which so often complicates gastropnothis that leads to the marked diminution of free hydrochloric acid, the diminution apparently being more marked the greater the associated dilatation.

IS REGISTRATION AND DISINFECTION A SUCCESSFUL METHOD OF COMBAT- ING PULMONARY CONSUMPTION? *

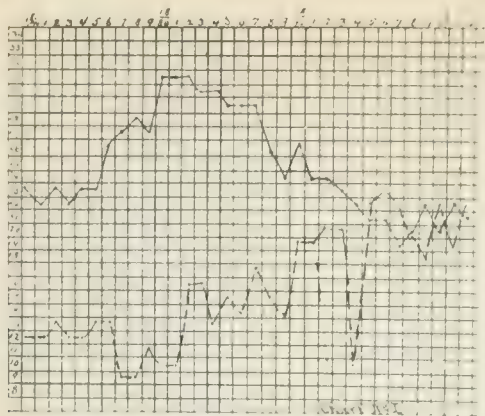
By THOMAS J. MAYS, A. M., M. D.,

PHILADELPHIA.

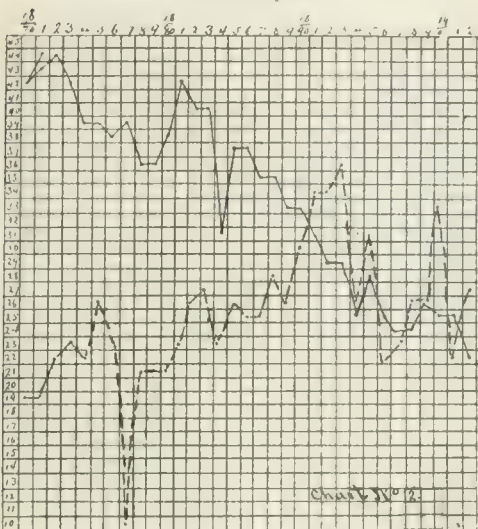
While preparing the paper¹ on the death rate of acute pneumonia, phthisis, and heart disease, which I read before the Washington meeting of the American Climatological Association last May, I was surprised to find that, instead of decreasing, pulmonary consumption has increased in most of the large cities of this country during the last five or seven years. This naturally raises the query whether the so-called modern methods of registration and disinfection which are and have been in vogue in many of our American cities during the last five or ten years are as efficient in "wiping out" this disease as we have been led to believe by their enthusiastic sponsors. Prompted by a spirit of investigation, and being aided by the kind and courteous treatment which was tendered by the various boards of health of this country—to whom I return my warmest thanks—I have secured a large mass of statistics not included in the paper above referred to, and am now enabled to present the death rate of consumption, together with that of pneumonia, in twenty of our largest cities, and in two prominent States, viz.: Philadelphia, New York, Chicago, Boston, St. Louis, Buffalo, Washington, D. C., New Orleans, Richmond, Baltimore, Louisville, Reading, Milwaukee, Hartford, New Haven, Cleveland, Haverhill, Worcester, Cincinnati, Indianapolis, and New Jersey and Rhode Island—representing a total of nearly thirteen million inhabitants, or about one-sixth of the entire population in the United States. These statistics are arranged in twenty-five charts, each chart representing a city or a State, and in many instances cover a period of thirty years—from 1872 to 1903. The death rate of each disease has been reduced to a per mille basis, and each division line represents one-tenth of a mille: as, for example, the figures 15 and 20 in the upright column signify that one and a half, and two persons, respectively, died in a thousand living, and so on. The black line represents consumption, the dotted line pneumonia.

* Read before the York meeting of the Medical Society of the State of Pennsylvania, September 23, 1903.

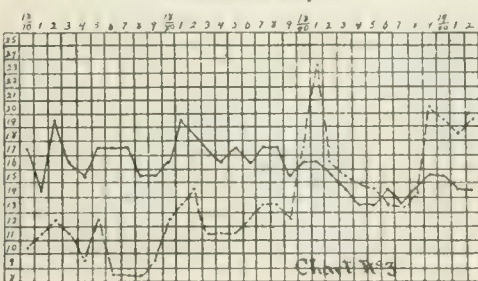
¹ This Journal, August 1, 1903.



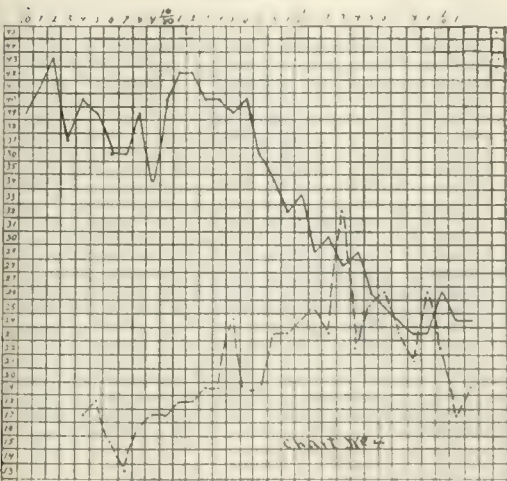
Philadelphia.



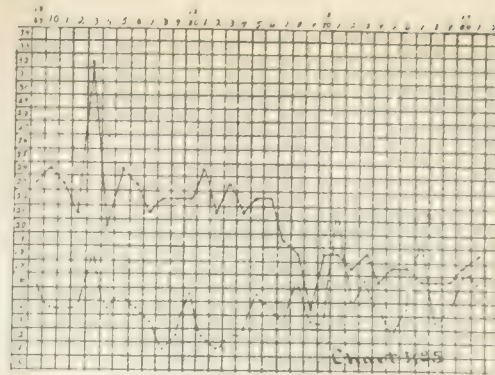
New York City.



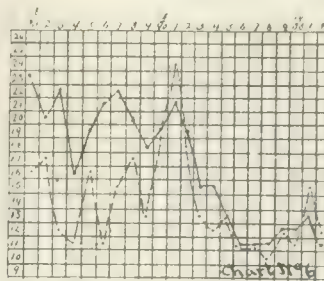
Chicago.



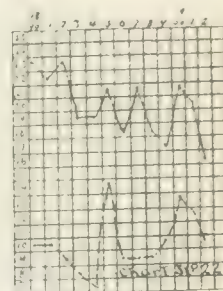
Boston.



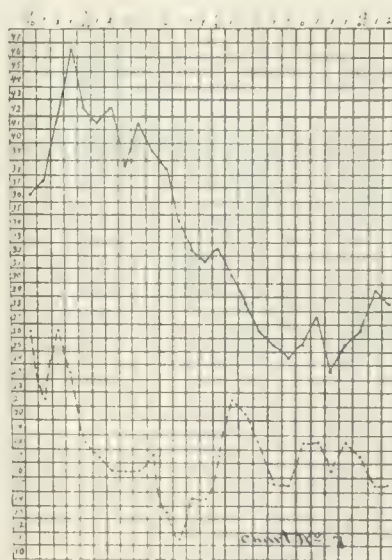
St. Louis.



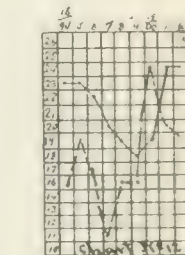
Buffalo.



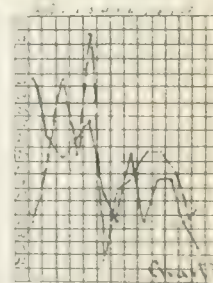
Indianapolis.



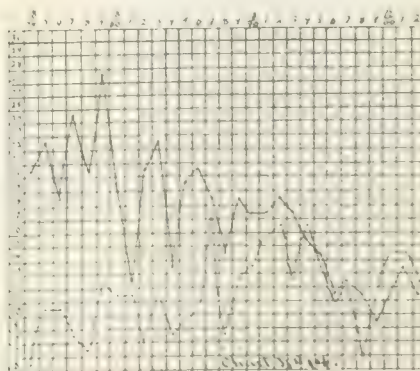
District of Columbia.



Baltimore.



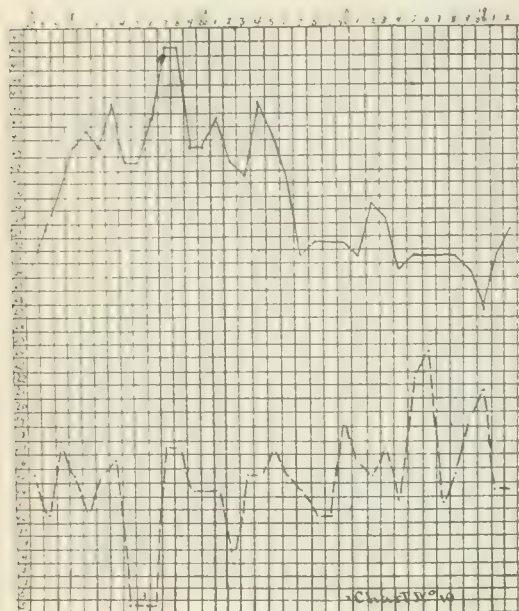
Hartford.



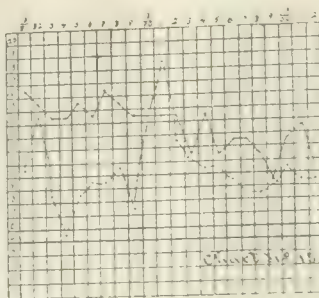
Reading.

One of the striking characteristics of these charts is that, with very few exceptions, the consumption tracing pursues a general descending course; while the pneumonia tracing on the whole makes a rise.

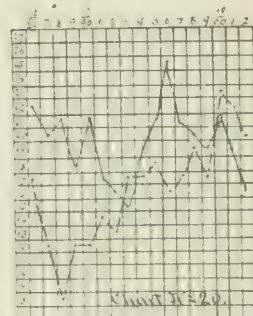
monia tracing makes a short and sharp crescendo about the year 1890, then comes a depression, and another elevation about the year 1900, there being a general elevation during the last decade.



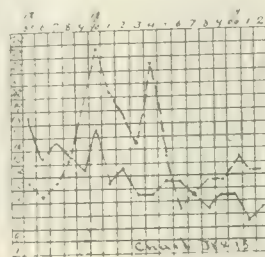
New Orleans.



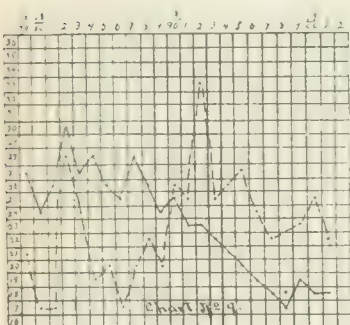
Milwaukee.



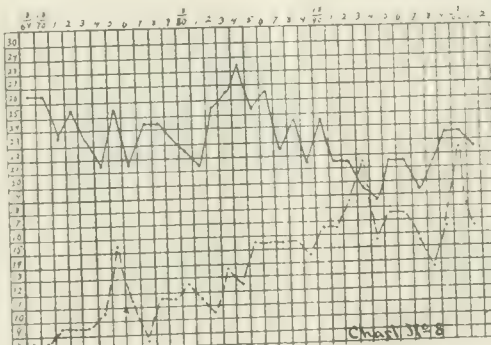
Worcester.



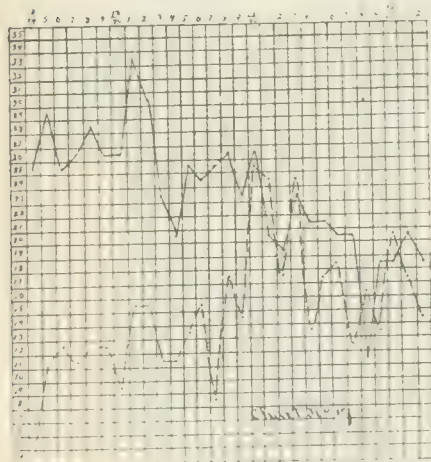
Cleveland.



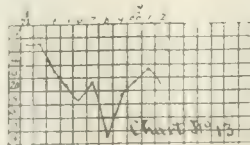
New Jersey.



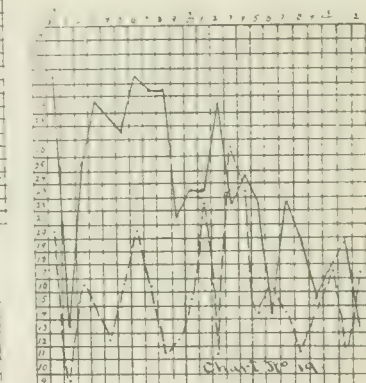
Rhode Island



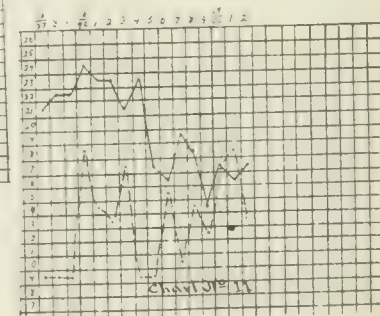
New Haven.



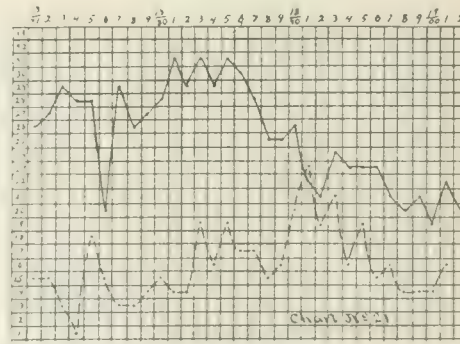
Louisville.



Haverhill.



Richmond.



Cincinnati.

except in the case of the District of Columbia, in which there is an actual decrease.

Another marked general feature is that the pneu-

Moreover, these tracings demonstrate that during the last five years consumption increased in Philadelphia, Boston, St. Louis, Buffalo, District of Co-

lumbia, Rhode Island, New Jersey, New Orleans, Richmond, Baltimore, Louisville, Reading, Milwaukee, New Haven, Cincinnati, and Indianapolis; and decreased during the same time in New York, Chicago, Hartford, Cleveland, Haverhill, and Worcester. The total increase being 184.71 per cent., and the total decrease 38.86 per cent., leaving a net increase of 145.75 per cent. in all these localities during the last five years of the record.

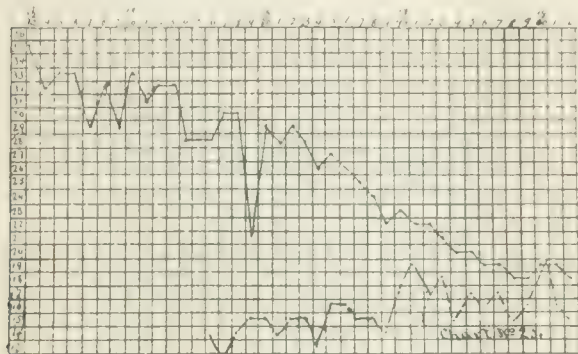


CHART 23.—Composite chart of phthisis and pneumonia, representing Philadelphia, New York, Chicago, Boston, Baltimore, Hartford, Worcester, Cincinnati, New Haven, Buffalo, Louisville, St. Louis, Washington, Rhode Island, New Orleans, Richmond, Reading, Milwaukee, Cleveland, Haverhill, New Jersey, and Indianapolis: representing a population of 12,579,741.

Chart 23 is a composite representation of the average death rate of phthisis and pneumonia for each city and State, and for each year—in case of the former disease the period extends from the year 1863, and in that of the latter from 1876 to 1902. This chart brings out the following points which are possessed in common by all the charts, viz.: (1) The gradual descent of the consumption rate from the first year almost to the last; (2) the pneumonia crescendo in the early nineties, followed by a decline, and then by a rise in 1900; and (3) the increase of phthisis in the last five years.

On examination of the charts it will be found that, with the exception of a few, they may be divided into two classes, viz.: first, those in which the phthisis and pneumonia tracings touch or cross each other during the last eight or ten years, or in which the pneumonia line makes a rapid ascent, as is the case with Philadelphia, New York, Chicago, Boston, Buffalo, Baltimore, Hartford, New Haven, Cleveland, and Worcester; and, second, those in which the same tracings remain apart a good distance, or in which the pneumonia rate is considerably lower than that of phthisis during the same time, as is true of St. Louis, District of Columbia, New Orleans, Richmond, Reading, Milwaukee, Haverhill, and Indianapolis. These differential features are well illustrated in composite charts 24 and 25, respectively.

A very interesting point relative to the great predominance of pneumonia during the last ten years of the record develops at this stage of the investiga-

tion. While it must be admitted that a part of this increase is due to the marked prevalence of influenza during the latter eighties and the early nineties, yet, since this disease has practically died out, it is not at all probable that its influence persists up to the present time, and hence this augmented mortality must be due to other causes. Now comes a very curious and unexpected coincidence in relation to the modern prevention theory of consumption. In order to find out what influence this theory has or had on the prevalence of this disease, I sent a letter of inquiry to the boards of health of all the localities which are represented in this paper as to whether they practise registration and disinfection of consumption, and whether this subject had been much agitated; or whether these measures had received no consideration. A prompt reply was received from all of them. The localities which favored and practised registration and disinfection of consumption, or in which these subjects are and were much agitated, are Philadelphia, New York, Chicago, Boston, Buffalo, Baltimore, Hartford, New Haven, Cleveland, Worcester, Cincinnati, and New Jersey.² Those which do not administer either of these measures are St. Louis, District of Columbia, New Orleans, Richmond, Reading, Haverhill, Indianapolis, and Milwaukee. It will be observed, therefore, that the localities which are comprised in the composite chart No. 24, with the exception of Cincinnati, coincide with those which accept and employ registration and disinfection; while the localities which are included in the composite chart No. 25 correspond exactly with those which do not enforce registration and disinfection.

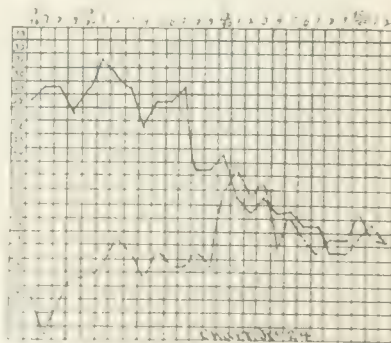


CHART 24.—Composite chart of phthisis and pneumonia in the localities following, in which registration and disinfection of phthisis are enforced by law, or in which a strong sentiment in favor of these measures exists: Philadelphia, New York, Chicago, Boston, Buffalo, New Jersey, Baltimore, Louisville, Hartford, New Haven, Cleveland, Worcester, Cincinnati.

Now, if we average the death rate of phthisis and pneumonia of the ten prevention localities, viz.: Philadelphia, New York, Chicago, Buffalo, New Haven, Worcester, Cleveland, and New Jersey, and

² Louisville is omitted, because of failure to obtain the pneumonia death rate.

of the eight non-prevention localities, viz.: St. Louis, District of Columbia, New Orleans, Reading, Milwaukee, Haverhill, Richmond, and Rhode Island, for twenty years—from 1883 to 1902—and divide the time into two periods of ten years each, and compare the death rate of these two diseases between these periods, it will be found that the decrease of phthisis was 30.28 per cent. greater in the prevention than in the non-prevention localities, while the increase of pneumonia was about 500 per cent. greater in the former than in the latter localities.

This difference in the average death rate of phthisis and pneumonia between the prevention and the non-prevention localities is still more strongly contrasted when the whole record, as it is given in the differential composite charts Nos. 24 and 25 is taken into account. For, by comparing the average of the first five years with that of the last five years of this period, it will be seen that the decrease of phthisis is about 1,000 per cent. greater in the prevention than it is in the non-prevention localities, while pneumonia increased over 600 per cent. in the former over the latter localities during this period.

Now what is the interpretation of these figures?

How can the difference in the death rate of pneumonia be accounted for between those localities which practise prevention and those which do not? Why is it that in the last twenty years this disease increased only 10.45 per cent. in Haverhill, Mass.—a non-prevention locality—while in Worcester—a prevention locality—only about fifty miles away, it increased 46.66 per cent. in the same time? Why is it that in the last twenty years pneumonia actually decreased 33.33 per cent. in the District of Columbia—a non-prevention locality—and increased 23.58 per cent. in the city of Baltimore—a prevention locality—in the same time; both places having a similar climate, and being only forty miles apart? Again, why is it that in all the prevention localities the average death rate of pneumonia is over 600 per cent. higher than it is in the non-prevention localities?

Is this mere chance or coincidence, or is it a connection between cause and effect? If the latter, what and where is the cause? Without making any deduction concerning the specific nature of this cause, it is evident from the charts and figures which are here submitted that the pronounced decrease of phthisis in the twelve prevention localities is supplemented largely by the excessive rise in the pneumonia rate in the same localities during the same time. Indeed, it seems as if, from the early nineties until the end, the phthisis and pneumonia lines had become confounded in prevention localities like Philadelphia, New York, Chicago, Baltimore, Hartford, Cleveland, and New Jersey, and as if a certain pro-

portion of deaths had been deducted from the former and bodily transferred to the latter, thus effectually destroying the relationship that obtained between the death rate of these two diseases for the previous twenty or thirty years, or as far back as the records extend.

The non-prevention localities occupy a different position in this respect. In most of these the pneumonia line remains far below that of phthisis throughout, and in not a single instance does the former rise above the latter and maintain itself there.

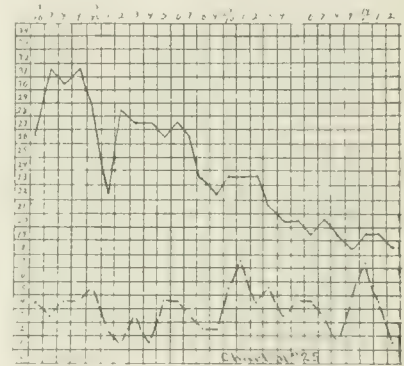


CHART 25.—Composite chart of phthisis and pneumonia in the localities following, in which registration and disinfection of phthisis are not yet practised: St. Louis, District of Columbia, Rhode Island, New Orleans, Richmond, Reading, Haverhill, Milwaukee, Indianapolis.

This feature is well illustrated in composite chart 25, which is made up of St. Louis, District of Columbia, Rhode Island, New Orleans, Richmond, Reading, Haverhill, Milwaukee, and Indianapolis.

It might be asserted that the greater decrease of phthisis in the prevention over the non-prevention localities during the last ten years is direct proof of the efficacy of disinfection measures. Standing by itself it might be regarded as such, but when taken in connection in the first place with the simultaneous enormous rise of the pneumonia column in the same localities, and in the second place with the fact that no rise, but even a decline, occurred in the pneumonia rate of the non-prevention localities it will be seen that its force as such is greatly impaired. For, if other things are equal—and there is no reason for doubting a general sameness of conditions in all these localities, barring those of local artificial coloring—that which affects the death rate of pneumonia in one region also affects it in another. Hence, it is perfectly clear that the decrease of phthisis is intimately interlinked with the increased of pneumonia, and it is very probable that both of these phenomena are dependent on the influence of registration and disinfection, because in localities like New York and Boston, in which these measures have been carried out the most effectually, and for the longest periods, the death rate of pneumonia

attains by far the highest average during the last ten years.

Statistics are said to be delusive sometimes, but when a subject is viewed from as many varied standpoints as this has been, (1) from the per mille charting of each locality; (2) from the composite representation of the average death rate of phthisis and of pneumonia of most of the above named localities for nearly thirty years; (3) from the differential charting of the prevention and the non-prevention localities for the same period; and (4) from the comparative results of the average death rate of phthisis and pneumonia between the prevention and the non-prevention localities; and when this is coupled with the two important facts that all the prevention localities, with possibly one exception, may be recognized and separated from the non-prevention localities by the earmark of a high pneumonia death rate during the last ten years, and that in eight out of the thirteen prevention localities, viz.: Philadelphia, Boston, Buffalo, New Jersey, Baltimore, Louisville, New Haven, and Cincinnati there has been a total increase of 88 per cent. of phthisis during the last five years, it is altogether sufficient evidence to demonstrate that registration and disinfection have not thus far shown themselves a success in combating consumption.

THE RESULTS OF BRAIN SURGERY IN EPILEPSY AND CONGENITAL MENTAL DEFECT.*

By WILLIAM P. SPRATLING, M. D.,

SONYEA, N. Y.,

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(Concluded from page 552.)

RESULTS OF BRAIN SURGERY IN IDIOCY AND IMBECILITY.

The picture of success following brain surgery in epilepsy just presented was not bright.

In idiocy and imbecility, under the light of increasing time, its hue is more sombre still; so disappointing is it in color, in fact, that we feel a strong inclination to turn from it, saying: "There is nothing in it that brings any gratification; we do not want it, nor are we disposed to help in its creation."

Craniotomy, linear and *à lambeaux*, was introduced by Lannelongue, who published 25 cases, in 1891, in which he claimed results, not only so far as recovery from the operation was concerned, but also as to mental improvement in a remarkably short time, so striking and so novel that, to

use Jacobi's words, "Physicians began to hope, surgeons to glory, and the idiotic children"—he significantly adds—"let us see."

Nothing finer or more exhaustive on the subject, from the standpoint of the incredulous, if not of the positive opponent, has appeared in medical literature to our knowledge since Jacobi's masterly address, *Non nocere*, delivered before the Eleventh International Medical Congress in Rome, in April, 1894.

The essence of that address, so true then, is none the less true now; the pathology of mental deficiency has not changed, nor have we in all these years elevated the cause of craniotomy in the treatment of idiocy in any degree.

The *furor operandi*, so generally acclaimed ten years ago, has largely passed away, but it may return at any time, when the great principles that underly *non nocere* in this particular field of medical work, will await a wide application.

"What," asks Jacobi, "are the underlying conditions of idiocy?" In the main, as shown by the results of autopsies, they are as follows: "Chronic encephalitis, diffuse or circumscribed; diffuse (syphilitic) disease of the blood vessels; arrest of vascular development in the cortex; inequality in the hemispheres; inequality in the peripheral cortical layer on the two sides; defect of the third frontal convolution and the island of Reil; meningoencephalitis, with thickening and adherence of the pia and brain, such as may occur after forceps or trauma; cephal-hæmatoma internum, spontaneous hæmorrhages; embolism from heart disease; thrombosis from cholera infantum, followed by destruction of cerebral cells and atrophy of the cortex."

Starr found the latter condition in 21 cases out of 343. In the same cases, in 32 instances, he also found maldevelopment and apparent atrophic conditions of the brain structure of the hemispheres, chiefly cortical, the cells resembling those of a new born child, but with no apparent gross defects in the brain; atrophic and hypertrophic sclerosis, congenital or postnatal, in 97; atrophy by softening produced by embolism or thrombosis, and limited to certain arterial districts, in 23; arrest of development, such as porencephaly, in 132; cysts which produced atrophy by pressure or were associated with the atrophy due to the original lesion, in 14; hæmorrhages which were discernible by the remains of a clot, or by the blood staining of a cyst, of the pia, or of sclerotic tissue, in 18.

In addition to all these causes of idiocy, there remain to be mentioned, hydrocephalus, microcephalus, and premature ossification of the fontanelles and sutures.

These, in the main, are the pathological conditions in the brain that surgical intervention seeks to remove or modify for the relief of idiocy and imbecility; and while it would be of the greatest interest to look deeper into the relative frequency, degree, and kinds of the different causes and pathological states, we must, perforce, for lack of time pass on to what surgery—never more brilliant or wondrous in the world's history than it is to-day—has been able or unable to accomplish in the way of relief.

While the literature is replete with histories

* Read before the fifty ninth annual meeting of the American Medico-Psychological Association, held in Washington, D. C., May 12, 13, 14 and 15, 1903.

of individual cases that teach valuable lessons, I am able to present 194 such cases under two heads in condensed form; the first group including the more immediate results in 111 cases, the second, results somewhat more permanent in 83 cases.

TABLE I, ONE HUNDRED AND ELEVEN CASES.¹

CASE No. 1.—Microcephalus, imbecility from early synostosis in a child. Left craniectomy. Death twenty-four hours after operation. (Lane; *Journal of Amer. Med. Assoc.*, January, 1892.)

CASE No. 2.—Girl, four years, microcephalus, craniectomy in two sittings. Results excellent. Marked improvement of general condition. (Lannelongue; *Gaz. hebdomad. de méd. et de chir.* 1890.)

CASES Nos. 3-26.—Twenty-four cases, 13 boys, 11 girls. Microcephalics and idiots, young subjects, showing with or without epileptiform crises, motor or psychic troubles. Operation for the most part "Kraniektomie a lambeaux." Dura opened in one case. Three died after operation. In a very large number of cases, mental improvement; also in regard to the gait. (Lannelongue; *Gaz. des hôpitaux*, 1891, *Congrès franç de chir.* 1891.)

CASES Nos. 27-30.—No. 27, craniectomy. Improvement, but a second operation was without results.

No. 28.—A nineteen months old girl. Idiocy. Premature suture synostosis. Failure of fontanelles. Craniectomy on both sides. After three months improvement, distinct, if not satisfactory.

No. 29.—Sixteen months old boy. Microcephalic idiot. Synostoses of suture and fontanelles, convulsions. Craniectomy. Death immediately after operation.

No. 30.—4½ year girl. Microcephalic idiot. Failure of fontanelles, convulsions, craniectomy. Death immediately after operation. (W. Keen; *Amer. Jour. Med. Sciences*, 1891.)

CASE No. 31.—Girl three years and half old. Microcephalic idiot, epilepsy. Premature synostosis of sutures and fontanelles. Left parietal bone lapped over right. Left arm paralyzed. Left craniectomy. Brilliant results three months and a half after operation. Epilepsy disappeared. Arm useful. (Ranschoff; *Medical News*, 1891.)

CASES Nos. 32-34.—Three cases. Only in one, exact history. A six year old boy. Microcephalus. Idiot. Synostosis. Convulsions. No trace of intelligence. Craniectomy in ΣE form. Excellent results. In the other two cases good results. (Wyeth; *Med. Record*, 1891, and *Gaz. hebdom de méd. et de chir.*, 1891.)

CASE No. 35.—A two and one-half year old boy. Microcephalic and idiotic. Can't walk, stand or speak. Epilepsy. Left craniectomy. Eight weeks after operation, improvement. Epilepsy disappeared. (William Morrison; *Med. Rec.*, 1891.)

CASES Nos. 36-37.—No. 36. A three year old boy. Microcephalic and idiotic. Craniectomy. Improvement in ten days.

No. 37.—A seven year old boy; microcephalic and idiotic. Craniectomy with incision over the speech centre. Death after operation. (V. Horsley; *Brit. Med. Jour.*, 1891.)

CASE No. 38.—An eight months old boy. Microcephalic; idiotic; blind on both sides. Left craniectomy. Sight improved. Great improvement. (Miller R. Shalders; *Ibid.*, 1892.)

CASES Nos. 39-45.—No. 39. A three and one-half year old boy. Microcephalic; idiotic; epilepsy. Right craniectomy. Improvement.

No. 40.—A four year old boy. Microcephalic and idiotic; epilepsy. Left craniectomy. Result, o.

No. 41.—An eighteen year old boy. Microcephalic; idiotic; epilepsy. Craniectomy Δ Death.

No. 42.—A fifteen year old boy. Same symptoms as above. Craniectomy. Death in twenty-six hours.

No. 43.—A nine year old boy. Microcephalic; idiotic; epilepsy. Craniectomy \vee form. Improvement.

No. 44.—Symptoms in a twelve year old girl, as in preceding case. Right craniectomy. Result, o.

No. 45.—A fourteen months old child. Microcephalic. Idiotic. Left craniectomy. Death soon.

CASE No. 46.—A three year old child. Did not walk, sit, or speak. Salivation. Right craniectomy. Improvement. (M. Gould; *Med. News*, 1891.)

CASE No. 47.—A four and one-half year old boy. Microcephalic and idiotic. Epilepsy. Craniectomy, right, \wedge form. Improvement. The author is not absolutely satisfied with this improvement. (Clayton Parkhill; *Ibid.*, 1892.)

CASE No. 48.—Nine years old; microcephalic and idiotic. Like three year old child. Right craniectomy. Improvement. After two years grew much worse. Death 1893. (Preugrueber; *Gaz. hebdom de méd. et de chir.*, 1892.)

CASES Nos. 49-50.—A four year old girl. Microcephalic; idiotic. Craniectomy both sides, \wedge form. Improvement.

No. 50.—An eleven and one-half year old boy; microcephalic and idiotic. Left craniectomy. Improvement. (Chenieux; *Ibid.*)

CASE No. 51.—A three year old boy; microcephalic. Slight improvement in seven months. (Largeau; *Ibid.* and *Congrès. franç de chirurg.*, 1892.)

CASE No. 52.—Eight months old; microcephalic; craniectomy, * form. After operation, deterioration, then slight improvement. (Gersúny; *Gaz. hebdom de méd. et de chir.*, 1893.)

CASE No. 53.—Microcephalic and idiotic. Temporary craniectomy. Improvement. (Jonnesco; *Ibid.*, 1898.)

CASE No. 54.—Sixteen months old; microcephalic and idiotic. Craniectomy both sides. Improvement, but deaths after five days. (Griffiths; *Ibid.*)

CASE No. 55.—Nineteen months old; microcephalic and idiotic. Craniectomy. Result, o. (Boyd; *Ibid.*)

CASE No. 56.—Eight years old; microcephalic; epilepsy. Left craniectomy. Improvement. (Auger; *Congrès. franç de chirurgie*, 1891.)

CASES Nos. 57-58.—Four years old; microcephalic and idiotic. Craniectomy. Result, o.

CASE No. 58.—A two year old boy; micro-

¹ Both tables are made up from the results noted by Lowenstein, in references given.

cephalic and idiotic; epilepsy. Craniectomy □ form. Death twenty-one hours after operation. (Mannoury; *Ibid.*)

CASE No. 59.—An eight months old girl. Microcephalic and idiotic. Craniectomy, □ form. Improvement at first. Five weeks after operation again the old condition. Death shortly after. (Heurteaux; *Ibid.*)

CASE No. 60.—A three and three-quarter year old girl. Microcephalic and idiotic. Craniectomy both sides. More intelligent expression. (MacClintock; *Central. f. Chir.*, 1892.)

CASE No. 61.—An eleven months old boy. Microcephalic. Craniectomy, left. Improvement. Operation should be repeated. (E. Kurz; *Ibid.*, 1893.)

CASE No. 62.—Microcephalic child. Craniectomy □. No result reported. (Postempsky; *Ibid.*)

CASES Nos. 63-64.—A one and one-third year, microcephalic boy. Craniectomy both sides. No result after one year.

No. 64.—A two and one-half year old microcephalic girl. Craniectomy both sides. Death eight weeks and a half after operation, unimproved. (Tillmanns; *Ibid.*, 1894.)

CASE No. 65.—A fourteen year old boy; idiot. Right craniectomy. Seven trephine buttons removed. Improvement. (A. Szpanbock; *Ibid.*, 1895.)

CASES Nos. 66-67.—Twelve cases, microcephalic and idiotic. Ages two years and a half to eight years and a half. Linear craniectomy. In 3, improvements; in 5 results, 0; in 1, ?; 3 deaths. (C. L. Dana; *Ibid.*, 1897.)

CASE No. 78.—A three and one-half year old boy; microcephalic and congenital occipital meningoceles. Idiocy. Craniectomy left and right and extirpation of the meningoceles. Two years and a half after operation, physical and mental improvement. (Parona; *Jahresbericht f. chir.*, 1895, and *Contributo alla chirur. cerebrale e spinale.*)

CASES Nos. 79-90.—Nine operated on cases. The majority, craniectomies. Two improvements. (Oed & Cotterall; *Ibid.*)

CASES Nos. 91-92.—Two cases. One after a year, no improvement; 2 died. (Isuardi; *Ibid.*)

CASE No. 93.—A nine months child; microcephalic and idiot. Craniectomy both sides. Result, 0. Death after two years. (Bourneville; Lombard & Pillier, *Ibid.*, 1896.)

CASE No. 94.—An eight year old girl. Idiot. Craniectomy. Improvement. (Recasens; *Ibid.*)

CASE No. 95.—A five year idiot. Craniectomy. Result, ? (Lilanus; *Ibid.*)

CASES Nos. 96-102.—Seven cases of microcephalus and idiocy. Craniectomy. In all seven cases, result 0. (Blank; *Ibid.*, 1897.)

CASE No. 103.—A three and three-quarter year old boy. Microcephalus and idiocy. Craniectomy both sides. Improvement. (Joos; *Korresp.-Bl. für schweizer Aerzte.*, 1893.)

CASE No. 104.—A fourteen months old girl. Microcephalus. Craniectomy, circular. Improvement. (Dumont; *Ibid.*)

CASE No. 105.—A twelve year old child. Microcephalus. Craniectomy both sides. A little improvement. (Schede; *Deutsche med. Woch.*, 1895.)

CASES Nos. 106-107.—A fifteen year old girl. Idiocy. Microcephalus. Left craniectomy. First improvement, then old condition. Result, 0.

No. 107.—A two year old boy. Microcephalus and idiocy. Craniectomy, left and right. Death seven days after operation. (Beck; *Prager med. Woch.*, 1894.)

CASE No. 108.—A two year old boy. Microcephalus and idiocy. Craniectomy both sides in two sittings. Improvement. Half a year after operation no progress. No improvement after second operation. After eight weeks a slow improvement noted by the mother. (Akerman; Volkmann's *Sammlung klin. Vorträge.*, 1890-94, hr. 90.)

CASES Nos. 109-110.—A six year old boy, microcephalic and idiotic.

No. 110.—Microcephalic and idiotic. Left craniectomy. Both children neater. (Rabow & Ronx; *Therap. Monatshefte*, 1891.)

CASE No. 111.—Girl, microcephalus and idiocy. Epilepsy. Craniectomy both sides, □ form. Result, 0. (Starr; 1894.)

Summary of Results in 111 Children Operated on.

19 or 17 per cent., died in consequence of operation or soon after.

25 or 22.5 per cent., were operated on with no result.

10 or 9 per cent., were operated on with slight result, but not satisfactory.

24 or 21.5 per cent., were improved in stated ways.

30 or 27 per cent., improved without reports as to their character

3 or 3 per cent., with no reports as to the results given in general.

TABLE II, EIGHTY-THREE CASES.

CASE NOS. 1-4.—Three boys; 1 girl. Ages three, five, seven, and nine years. All were microcephalic and idiots. Two were epileptics. Linear craniectomy. Two died after operation. Old hæmorrhage of brain. One disappeared after the first improvement. One was improved. (Parkhill; Denver, June 19, 1899.)

CASE NOS. 5-26.—Twenty-two cases, in age from fourteen months to eight years. All were idiots and microcephalic. Linear craniectomy. The results were such that Lanphear, since 1896, has not done the operation in general. Some died in the next years after the operation. (Lanphear; St. Louis, June 26, 1899.)

CASE NOS. 27-41.—Fifteen cases of craniectomy. Five died immediately after the operation. One died after having become maniacal a short time after the operation. Six showed absolutely no result. Three were only quieter after the operation. (Roswell Park; Buffalo, June 22, 1899.)

CASE NOS. 42-45.—See other table Nos. 27 to 30. Two died immediately after the operation. Two showed results which = 0. Keen from his results became opposed to the operation. (W. Keen; Z. Lt. Hamburg, June 30, 1899.)

CASE No. 46.—See No. 38 in last table. Died four years after operation. First improvement; then two years after operation return to old condition. (Miller R. Shalders; London, June 15, 1899.)

CASE No. 47.—See case 81 in last letter. This writer says: "The operation of Lannelongue has given no result; no one of my acquaintance practises it in France." Hemispanectomy. Result = 0. (Doyen; Reims, June 19, 1899.)

CASE No. 48-49.—A four year old girl. Two year old boy. Microcephalic and idiotic. Craniectomy. One died immediately after operation. One showed improvement in the first two or three months after operation. Five months later the old condition returned permanently. (Mannoury; Chartres, June 10, 1899.)

CASE Nos. 50-52.—An eleven year old child. Microcephalic. A thirteen year old boy. Microcephalic, idiot and epileptic. A four and one-half year old boy. Microcephalic, idiot and spasms. Craniectomy both sides. At first, results. Then "The patients remain idiotic and epileptic and have only temporary ameliorations for 1 or 1½ months" (Jaboulay; Lyon, June 14, 1899.)

CASE No. 53.—Case 61 of first table. First improvement. Then patient grew worse and died in 1897. (E. Kurz; Florenz, June 16, 99.)

CASE Nos. 54-75.—Twenty-two cases of microcephalus, idiocy, and epilepsy in children not over five years of age. (Nos. 66-77 in first table.) Craniectomy of various kinds. Five died. Fourteen were operated on without results. Three were improved. (C. L. Dana; N. Y., September 18, 99.)

CASE No. 76.—Result, 0. Child died one year and a half after operation. Whole left hemisphere, cystic degeneration. (Gersúny; Wien, June 25, 99.)

CASE Nos. 77-78.—(Dumont, 104, Table 1) epilepsy remained till death, 1896. (Operation, 1893). No. 78. (Joos & Walder, 103, Table 1) after two years the results disappeared and the patient was in a sad state. (Dosseker; *Korrespond. —Blatt f. schweizer Aerzte*, 1899.)

CASE No. 79.—Idiocy. Craniectomy both sides. No change after operation. After five years the old animal condition. (Czerny.)

CASE Nos. 80-82.—Three cases. Two girls; one boy. Ages six, seven, and eleven years. Idiocy; one with microcephalus. Circular craniectomy. Two much quieter, one died after some years an idiot. (Dumont; Berne, October 21, 1899.)

CASE No. 83.—A three and one-half year old girl. Microcephalic and idiot. Epilepsy. Craniectomy. First, improvement; then deterioration. The child became insane and died in this condition in 1900. (Perry; Colombo, September 20, 1899, together with letter of Jonathan Bird Kandy, July 10, 1899.)

Summary of Results in the 83 more Permanent Cases.

20 or 24 per cent., died.

54 or 65 per cent., unimproved.

9 or 10½ per cent., improved.

Seventy-four out of 83 received no benefit.

The 9 who were improved showed it mostly in being quieter. This was the result in a case of restless imbecility and epilepsy operated on at the colony; mental deterioration after the operation being rapid. The sudden lull in purposeless activity that follows the operation in some cases must not be mistaken for gain in mental powers. The opposite is generally the rule.

Note the results in Roswell Park's 15 cases. Five patients died immediately after the operation; 1 died after having become maniacal a short time after it; 6 showed absolutely no improvement; while 3 only were quieter. Also the results obtained by Lanphear in 22 cases, ranging in age from fourteen months to eight years, all microcephalic idiots, the results being such that, since 1896, Lanphear has not performed the operation. Doyen says, "The operation of Lannelongue has given no results; no one of my acquaintance practises it in France."

Dana's 22 cases turned out as follows: 5 patients died; in 14 there were no results; while 3 were improved; none being over five years of age, all having idiocy and epilepsy.

Wilson states that since Fuller, of Montreal, trephined an idiot's skull, in 1878, to improve the mental condition, and Lannelongue, of Paris, did linear craniectomy on microcephalic idiots with the same object, craniectomy has been done a number of times with varying success. Some think, with Lannelongue, that the premature ossification of the skull is the cause of the microcephalus and deficient brain development, and justify the operation on the theory that the imperfectly formed brain improves its function and takes a greater amount of nourishment after the operation.

"With the hypothesis," says Löwenstein, "of the primary synostosis of the sutures and fontanelles and the secondary hindrance of brain development, stands or falls the right of Lannelongue's operation. The hypothesis is false and therefore the operation is not a suitable one. Death or no result follows."

Keen says no good can possibly come from operation on an idiot with skull of average size, in extreme microcephalus, or in a patient over seven years of age, and concludes that in some few cases of moderate microcephalus craniectomy is justifiable, that slight improvement will follow in a small number of cases, but that in the majority there will be no change. He places the mortality at from 15 per cent. to 20 per cent.

Dana holds that craniectomy is justifiable in a selected class of cases. He believes that the clinical reports show improvement too often for the facts to be ignored. He thinks the operation is indicated in simple lack of development rather than where extensive lesions exist.

Jacobi gives 41 operations on 33 cases with 14 deaths, and of the 19 recoveries from the operation there was slight improvement in 8 and considerable improvement in 2, and he says:

"It appears that in the face of so many deaths and so few results, the operation is not promising to mankind.

"The operations thus far performed do not effect what they were intended for; they do not even enlarge the cavity. . . . If any cases be at all amenable to treatment by such operations, they must be those of incomplete premature ossification of the sutures and fontanelles. . . ."

Goethe once said that "the most interesting book that could be written would be a treatise on the errors of mankind." And Jacobi adds, "let us see to it that our mistakes do not swell that book."

Carl Beck concludes that craniectomy is justifiable and likely to be successful in microcephalus

with idiocy. Acquired and late forms give a better prognosis than the congenital forms, while the dangers of the operation, he says, are not very great.

Norbury is of the opinion that the basis of much cerebral surgery in mentally defective states has been grossly theoretical, especially, he goes on to say, does this apply to operations for the relief of microcephalus.

Operation from a pathological standpoint is utterly hopeless. Synostosis is not necessarily indicative of arrested mental development, and it is not a factor in producing microcephalus.

Broca has modified Virchow's views by saying it is a result and not a cause of microcephalus. Lannelongue now accepts the same view, but believes that as the brain is capable of development until past the eighth year, the operation is justifiable as a stimulant to brain growth.

Idiocy is "a vice of the entire organism," and the improvement of the mental condition depends upon the improvement of the entire physical system. This cannot be done by the assistance of surgical means, for brain growth is not dependent upon stimulus from such a source, but from true physiological education—the training of the bodily powers—without which no mental improvement can be expected.

The marked improvement noted in the few cases which have survived the operation of linear craniectomy is not to be wondered at, as all interested in the case have sought by every means to improve the child, and it must respond to a certain extent.

On the whole, Norbury is vastly in favor of educational in contradistinction to surgical measures for the improvement of the mental condition of the feeble-minded.

Bourneville, in reviewing in detail the histories of 13 original cases, concludes: "It is, then, the medicopedagogical treatment to which we must turn and upon which we must depend. This is for the amelioration, and even the cure, of a notable portion of children afflicted with the divers forms of epilepsy."

Pelliet states that the pathological anatomy of the brains of idiots confirms the opinion expressed by Bourneville. It is not difficult to formulate conclusions on the results to be expected from surgery of the brain done for the possible relief of epilepsy and congenital mental defect.

If the epilepsy is general and of some years' duration, we need scarcely expect a cure, though in selected cases operations may ameliorate the symptoms to a marked extent—temporary amelioration being oftener obtained than that which is permanent.

If the epilepsy is unessential, reflex, rudimentary in type, or of short duration, and the operation removes the cause early enough, we may expect the convulsions to cease in many cases, provided the patient is free from the vices of heredity that are always beyond the reach of the knife.

We fail to find a single case of congenital mental defect in which a normal mental status was established through surgical intervention. We find many reports of cases benefited—the degree not being given—so that it is extremely difficult to judge of specific results in any case.

The fact that such operations are so few now as

compared to what they were ten years ago, is the strongest argument against its utility in the great majority of cases. It may still be used in isolated cases of idiocy, but it seems clear that it is slowly finding its position in rational treatment along a plain far lower than seemed possible at the time of its inauguration.

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THE NECESSITY OF SPECIAL LEGISLATION FOR THE PREVENTION OF THE CONTAMINATION OF OUR WATER SUPPLY AS A PREVENTIVE OF TYPHOID FEVER.*

By JAMES MITCHELL, M. D.

LANCASTER, PA.

The object of this paper is to call the attention of the society to the increasing dangers from typhoid fever epidemics, as a result of the unscientific and careless manner in which we permit our rivers and streams to be contaminated by sewage.

Some of the medical journals have recently been throwing out hints concerning this subject, and one of them asked the pertinent question. How long are we going to make sewers of our rivers and streams?

In the past few months a recent outbreak of typhoid at Ithaca, N. Y., forcibly brought these conditions to our mind. The fact that it was a college town and affected the flower of our youth impressed it all the more.

The condition at Ithaca, by careful investiga-

* Read June 3, 1903, before Lancaster County Medical Society.

tion, was traced to an unguarded supply of surface water. Several cases of continued fever were known to have contaminated one of the small streams supplying the town, and undoubtedly one or more of these cases was typhoid. Some years ago my attention was called to an outbreak of typhoid fever at Plymouth, near Wilkesbarre. A commission was appointed to investigate, and it was found that a small stream some miles up the mountain had been infected by fecal matter from several cases of typhoid. The cases occurred in the winter and the excrement was thrown on the ground. The beginning thaw and early rains washed it into the stream which supplied the town with water.

Similar conditions will be found in most of our cities and towns. I should like, at this point, to discuss the method in which typhoid is propagated.

The exciting cause is a special typhoid germ, the bacillus of Eberth and Sternberg. The poison usually results from the decomposition of the typhoid stool, and possibly of the sputum, though the last cause must be extremely rare. It is possible that the disease, under certain undetermined circumstances, may be generated *de novo* from ordinary filth and decomposition. The atmosphere is never impregnated with the fever germs.

The poison gains entrance into the system by means of infected water, ice, meat, and other food. Heat will destroy the germ, but extreme cold has no effect. Hence ice from infected water may hold the germs for a long time, and may spread the disease, when used. Milk, oysters, and in a few recent cases olives, have caused the disease. These last were undoubtedly contaminated by infected water. Insects, such as flies, may, under certain conditions, convey the germs of typhoid stools to articles of food. We have an example of this in the late Spanish-American war. From lack of knowledge and care by the commanding and medical officers in the proper disposition of the camp sinks and the covering of the same, flies were the means of conveying fecal matters to the kitchens, thereby infecting the food, and causing severe outbreaks of typhoid in the various camps.

What sanitation could do in the prevention of typhoid was aptly shown at Camp Meade, Pennsylvania, where the first troops in camp suffered severely from typhoid. The water supply was excellent and pure, coming from a mountain stream back of the camp. The medical officers, after a time, awoke to the fact that the sinks were possibly the focus of the disease, and that it was conveyed by flies. Colonel Greenleaf, surgeon in the U. S. Army, devoted his attention to the matter and established a system of latrines. These

were houses in which were deposited large troughs. These were filled by connecting pipes with half a foot of water, in which was unslaked lime. They were emptied daily by the present odorless excavating wagon. In this manner it was impossible for flies to convey fecal matter to the food used by the troops. As a result, this camp, which had become a hot bed for typhoid, became perfectly healthy and absolutely free from the disease. My regiment spent a month there, and there were no cases of sickness of that nature.

In the tropics, typhoid fever is not so prevalent as one would expect. The conditions are all ripe for it. The cities of Japan and also of China, remote from the coast and from European influence, are filthy and dirty. Their streams would undoubtedly prove a source of infection, if it were not for the fact that the people in years of experience, became gradually a tea drinking race. The result is that the water is boiled, with a consequent destruction of the typhoid bacillus.

The Japanese are thoroughly familiar with the disease. Having several cases of typhoid on the transport, one of which developed in the first week and the other in the second week after leaving San Francisco, the captain was persuaded to stop at Yokohama, so that we might place the patients in our United States Naval Hospital there. I was surprised at the scientific manner in which the Japanese surgeons went about their examination. They carefully examined the splenic region; went over the abdomen and lungs; looked for spots, and inquired into the symptoms. They knew it by the name of enteric fever, and seemed somewhat puzzled when I first called it typhoid. The blankets and bedding that went with the patients they insisted upon destroying.

In Cuba and the Philippines, typhoid was rather rare in comparison with the other diseases.

Osler states that in highly malarious countries typhoid fever is rare, and attributes this to the fact that the malaria germ is antagonistic to the typhoid bacillus. I cannot agree with him in this, as I have seen typho-malarial cases with undoubted mixed infection. I attribute the freedom from the disease of the inhabitants of such countries more to the fact that it is customary for them to boil all water, and to use sand and charcoal filters. Further, the natives defecate on the ground and the hogs of that country are the scavengers. The excrement is consumed by them. I now realize why Moses forbade the children of Israel to eat pork, and called the animal unclean. The sun and exposure to the air would naturally also destroy the germs.

But to return to the present condition of affairs

with us. Since our rivers and streams are now polluted, it is essential that we should endeavor to prevent any further infection. This can be done, first, by personal prophylaxis; and secondly by general prophylaxis.

To accomplish the first, it is our duty as physicians to insist that all water where there is the slightest danger of contamination shall be boiled. This is a sure preventive. Ice, oysters, etc., should never be taken from polluted waters.

In any suspicious case of fever all stools should be thoroughly disinfected with carbolic acid or the chlorides. Bedding and clothing should be sterilized by washing in a solution of boiling chlorides.

No article of food should be allowed to stand in the sick chamber. Milk, especially, should not be allowed to remain, as it has the property of absorbing poisons that may be in the atmosphere. Now, as 99 per cent. of typhoid fever infection is due to infected water, and as the disease could be eliminated with due care, the more general prevention will consist in the preservation of our streams from impurity. The question arises: Can this be done? That it can be, there can be no doubt.

Only a few weeks ago, I noticed in the paper, that one of the health officers had been experimenting for a year with street refuse. He has now succeeded in compressing it into bricks and making a fuel that will burn without much smoke and with no odor. He has proved that with a suitable plant he will be able to save the city thousands of dollars in the street-cleaning department, as well as to bring a source of revenue.

That sewage can be treated and converted into a good fertilizer there is no doubt. It would not be safe to use it in its natural state; but all sewers might be connected so that the sewage could be run into a common basin, where it could be evaporated, dried, mixed with lime, and burnt, so as to destroy all germs. There are engineers capable of building these plants.

As physicians it is our duty to call the attention of the public to this matter and to have them insist that our legislators shall pass laws effective to compel all cities and towns to care for their sewerage. This can be done by skilled engineers.

In the arid deserts of the West, the people would be willing to spend millions if they could get the water courses we have, and yet here in our town, we have polluted one of the best streams in the State, by emptying into it a sewer, which drains the refuse of a population of 30,000. To make it all the worse, we have placed it near the water works, and eventually under certain condi-

tions, there is danger that it may be pumped into our reservoirs.

Some people labor under the impression that running water will always purify itself within certain distances. Now still water will purify itself much quicker than running water. This is done by a process of sedimentation and oxidation. Running water is capable of carrying impurities a long distance. By experiments made with certain bacteria in the Chicago River, it was found they were conveyed as far as St. Louis.

And now for the appendix, which I hope will receive the cooperation of the society. I have here in answer to a letter, a list from the Philadelphia Board of Health, which I will proceed to read. These cases cover five years.

BOARD OF HEALTH,
Room 610, City Hall,
PHILADELPHIA, May 8, 1903.

JAMES MITCHELL, M. D.,
No. 164 E. King Street,
LANCASTER, PA.

Dear Doctor:

In reply to your favor of the 6th instant, relative to the number of cases of typhoid fever and deaths from same during the last five years, I send you the following information:

YEAR.	CASES.	DEATHS.
1898	6,097	630
1899	7,085	948
1900	3,227	440
1901	3,669	444
1902	5,006	588
Total	25,984	3,068

Yours very truly,
J. LEWIS GOOD,
President.

Here is also a list from Dr. Raub, of the Lancaster Board of Health. These figures speak for themselves.

BOARD OF HEALTH,
CITY OF LANCASTER, PA.
Typhoid Fever.

YEAR.	CASES.	DEATHS.
1891	26	5
1892	92	14
1893	50	4
1894	127	15
1895	190	42
1896	26	6
1897	210	36
1898	145	26
1899	178	28
1900	132	17
1901	90	9
1902	203	22
Total	1,478	224

M. W. RAUB,
Secretary.

Now, as 99 per cent. of all cases of typhoid occurring in cities with an underground system of

drainage, could be prevented if they had a pure water supply, is it not sufficient to make one pause and think?

Filtration will accomplish a great deal, but you cannot by this means get absolute purity. There is more to this subject, but I fear I have made it too long already. I hope that the members will consider the matter and that resolutions endorsed by the society will be sent to the heads of departments and members of the Legislature; that the cooperation of the other county societies and of the State society be requested; and, further, that the attention of the people may be called to the matter, in the hope that they will impress upon our representatives the need of proper legislation.

THE TREATMENT OF ACUTE BLENNORRHOEA OF ADULTS.*

By JAMES F. McCaw, M. D.,

WATERTOWN, N. Y.,

OCULIST, AURIST, AND LARYNGOLOGIST TO THE CITY HOSPITAL
AND JEFFERSON COUNTY ORPHAN ASYLUM; FELLOW OF
THE AMERICAN LARYNGOLOGICAL, RHINOLOGICAL,
AND OTOLOGICAL SOCIETY, ETC.

Acute blennorrhœa is an acute inflammation of the conjunctiva, which originates in contagion from gonorrhœal virus, the copious purulent secretion of which is likewise contagious in its action. The gonococci are found both in the pus secreted by the conjunctiva, and also in the most superficial layers of the conjunctiva itself (Fuchs). It is of importance that the contagiousness and virulent nature of this disease be fully comprehended, for then we are able to approach the treatment more understandingly and manifestly with greater success.

In bringing this subject to the attention of the society I have been influenced by my experience with a number of these cases coming under observation within the past few years, which have impressed me with the great importance of, but frequent lack of appropriate care and attention to, detail in the early stage of the disease and to prophylactic measures. The general practitioner should be as much interested in this condition as the ophthalmologist, for to him these patients usually first present themselves for treatment, and upon his judgment and advice covering the first few days of the disease, depends the integrity of the cornea, which means either the preservation or loss of function of an organ of inestimable value. If, in presenting a few suggestions on the management of purulent ophthalmia, I re-

cite methods which should be perfectly familiar to all physicians, it is because experience has taught me that these things are often neglected in the early care, and eyes are allowed to remain bathed for hours in virulent and highly contagious purulent discharges. Eyes allowed to remain in such a condition are very liable to, and do, develop complications involving the cornea, uveal tract, and sometimes purulent panophthalmitis, which not only means great impairment of vision, but oftentimes calls for enucleation of the globe. We can readily understand, then, the necessity for prompt and vigorous treatment in the early stages of the disease, as a means of obviating some of the graver complications, but of greater importance is the institution of prophylactic measures, because when the disease has once appeared an unfortunate result cannot always be averted. I appeal to every physician to lay more stress upon the danger to the eyes from contamination with gonorrhœal and vaginal discharges, and to impress upon patients the necessity of absolute cleanliness after coming in contact with such discharges, for in that way we shall be able to stamp out a number of these cases and perhaps save the vision of many eyes. If some of my hearers who have not had a wide experience in ophthalmic work, could see how rapidly the cornea melts away, with complete destruction of the eye, in some of the more virulent cases, my appeal, I feel sure, would not be in vain.

By going over somewhat in detail the many ways in which infectious material may be transferred to the eyes, we shall be materially aided in formulating preventive measures. Direct transfer from a diseased mucous membrane may take place by a drop of secretion spurting into the eye of an attendant while treating the genitals of a gonorrhœal case or a virulent vaginal discharge, or in cleansing an eye already affected with blennorrhœa. For this reason, care must be exercised, and such methods used in the treatment of these cases as will obviate the spattering of solutions used in cleansing. If, however, in spite of the precautions, any of the contagious secretions get into the eye, it should be immediately and thoroughly cleansed, one or two drops of a two per cent. silver nitrate solution instilled, and subsequently cold applications applied for several hours. Most cases are infected by indirect transfer of the contagion through the medium of dirty fingers, soiled clothes, wash basins, dirty water, handkerchiefs, etc. Fuchs says that he has repeatedly seen cases develop in patients who, because of a mild conjunctival catarrh, washed their eyes in their own urine. This seems almost incredible in this enlightened age, but coming from

* Read before the City Medical Society of Watertown, N. Y., April 21, 1903.

such high authority and careful observer, there can be little doubt of its accuracy. It is not an unusual thing to find a mother infected from the vaginal discharge of her young child for whom she has been caring. Some of the most virulent cases I have ever seen have become contaminated in this way. I only recently saw such a case. A little girl, about two years of age, had what was supposed to be an ordinary inoffensive vaginal discharge, and the mother undertook the care of it; a few days later she developed a most virulent type of blennorrhœa, which rapidly went on to complete destruction of the cornea and loss of the eye in one week from the onset. There is a habit—prevalent among women of the lower classes—of using the wash basin to cleanse the genitals; under certain circumstances—such for instance as virulent vaginal discharge—this would become a source of great danger to the rest of the household. In a case I saw not long since, infection could be traced directly to this source. Where an eye is already infected, it is of the greatest importance that the fellow eye should be thoroughly protected from contamination; in my experience, this indication is best met by the use of Buller's shield. I have used it with perfect satisfaction for a number of years, and prefer it to the bandage recommended by some writers, for the reasons that it is easier to apply, gives better protection, and the eye can be inspected at any time without disturbing the dressing, all of which I think are important factors. If we keep in mind the many avenues through which eyes are infected with acute blennorrhœa, it is not difficult to understand that by proper prophylaxis it can be prevented. It then becomes the physician's duty to impress upon every woman with a vaginal discharge and every man with gonorrhœa, the dangers to eyes arising from such discharges, and the importance of thorough cleanliness. In the treatment of the disease itself, I should first like to call attention to the use of cocaine, only to condemn it. The habit of regularly instilling this drug into the conjunctival sac to relieve pain in this or any other eye disease, especially where the integrity of the cornea is in peril, is deleterious and injurious, and should never be practised. From its anæsthetic effect, the cornea is apt to be injured by foreign bodies resting upon its surface producing small abrasions, inviting infection by the virulent discharge bathing it, and rapidly impairing its vitality. That it produces drying of the corneal surface and interferes with its nutrition are other contraindications to its use in this disease. If pain is severe, morphine or opium should be used, and is indi-

cated in this stage. *I make the broad assertion that cocaine should never be used as a method of treatment in eye diseases.* To this general statement, however, there are a few exceptions, the detail of which would carry me far beyond the limits of this paper. Bandaging and poulticing the eyes are favorite methods of treatment among the laity. This produces increased congestion, chemosis, and retention of discharges, the relief of which is the most important indication in treatment. As medical advisers we should strenuously prohibit their use in acute blennorrhœa. The indication for combating the inflammation in the first stage of the disease is best met by the application of iced compresses, except in those cases where the conjunctiva looks harsh and is covered with a tenacious grayish exudate, in which case hot applications are preferable. Cold must be kept up regularly day and night for twenty-four to thirty-six hours, when the intervals between applications may be lengthened. During the second stage, or that in which there is usually a free purulent discharge, the most important part of the treatment is the frequent and thorough cleansing of the eye from the purulent secretion. By frequent, is meant as often as is necessary to keep the conjunctival sac free from the contaminating discharge. It should never be allowed to accumulate. This requires great care and perseverance, but should not be neglected, however onerous the duty, for this thorough cleanliness is an important factor in the preservation of the cornea. Many solutions have been recommended for this purpose, their respective antiseptic properties being given as an indication for the use of one over the other. Personal experience has taught me that it matters little what antiseptic is used if the washing is thoroughly carried out, for therein lies the secret of success with any solution. After using many with little difference in results, I now rely upon a one half saturated solution of boric acid as meeting all the indications of a mildly antiseptic, non irritating, cleansing wash. So soon as a free purulent secretion is established and the conjunctiva is in a succulent condition, it should be brushed thoroughly twice daily with a two per cent. silver nitrate solution, so long as this free discharge continues. Corneal complications furnish no contraindication to the use of silver nitrate, which should be continued uninterruptedly. Upon the first indication of corneal infiltration or ulceration, iced compresses should be discontinued, hot applications substituted, and a solution of atropine instilled three times daily. Many of these patients are in a state of lowered vitality and physical vigor, and require our most careful at-

tention as a means of improving their resisting power to the ravages of the disease.

In the foregoing remarks I have briefly outlined the treatment that has proved most satisfactory in my hands, but it must be understood that there are cases of the more virulent type which all treatment is powerless to control, and we must content ourselves with trying to avoid complete destruction of the cornea, and the evil consequences of involvement of deeper structures that usually follow.

SOME OBSCURE CASES OF EYE STRAIN.*

By F. W. MARLOW, M. D.,

SYRACUSE, N. Y.

Most of the patients who consult an oculist for the relief of asthenopia or headache or allied symptoms obtain promptly a greater or less degree of relief. A few either are not relieved or have their symptoms aggravated by the glasses or treatment prescribed. This is a source of disappointment and annoyance, not only to themselves, but also to the physician who advised them to have their eyes examined, and to the oculist in whose hands they have placed themselves. In some instances these patients seek other advice, either on their own initiative or on that of their friends or physician, or give the whole thing up. A certain number come back for further investigation. It is surprising how many people whose symptoms have been of many years' standing and have hitherto baffled the protracted efforts of the most competent general physicians, expect to obtain relief from the first therapeutic effort of the oculist. This expectation is presumably due, in part at least, to the non-appreciation of the changes which have taken place within quite recent times in the conditions for which glasses are prescribed. Patients commonly think and speak of the procedure as "getting a pair of glasses," regarding that as a very simple affair. As a matter of fact, it was formerly a much simpler proceeding than it is at the present time. It is only within the last fifty years that glasses have been commonly worn for any purpose except to improve distant vision in cases of myopia and to make up for the loss of accommodative power after middle age. These matters were commonly relegated by the ophthalmologist of that day to the optician, and in the case of myopia we find the following directions in Jones's *Ophthalmic Medicine and Surgery*, edition published in 1847: "When a person finds it necessary to have recourse to glasses for short-sightedness, he should

go to an optician and select two or three pairs of about the focal length which, according to the method of calculation described, he thinks will suit him, and try them leisurely at home for a day or two before fixing his choice on a particular pair." To-day we know that the case of myopia which demands the prescription of ordinary concave spherical lenses and nothing else is a great rarity; the myopia being secondary to other conditions which are most commonly congenital and require individual correction. At that time the prognosis of asthenopia was regarded as unfavorable. Although astigmatism had been discovered, the author of this text book refers to it—under the name of "cylindrical eye"—as a condition with which he has no personal acquaintance, and mentions the case of Mr. George Airy, who had given an account in the *Transactions of the Cambridge Philosophical Society*, of one of his own eyes which was affected with astigmatism, which he had had corrected with a cylindrical lens ground by an optician. It is interesting in this connection to note in Liveings' classical work on megrim and sick headache, published in 1873, that two of the cases he describes are those of Sir George Airy, who suffered from the purely visual form of megrim, and of his son, Dr. Hubert Airy, from the same affection followed by headache. As is well known now, many cases of megrim are mainly ocular in their origin, astigmatism being perhaps the most common underlying factor. We find then in the work on ophthalmology, published in 1847, evidence that Sir George Airy had a degree of astigmatism requiring correction, and we find in a work on megrim published in 1873 that Sir George Airy and his son had sick headaches. Now, astigmatism is an extremely hereditary anomaly. It seems justifiable to assume that in the case of the Airys the refractive condition and the attacks of megrim had a closer connection than was suspected at the time these works were written. Since 1850, hyperopia has been described and studied in detail chiefly by Donders in his classical work on refraction, and the extreme prevalence of astigmatism in greater or less degree has been demonstrated. It soon became evident that many of the cases of asthenopia hitherto deemed incurable were dependent upon the accommodative strain produced by these conditions. As time went on, it was found that even the lower degrees of hyperopia and astigmatism and of differences of refraction between the two eyes were of great importance in many individuals. Later still, faults in the balance of the ocular muscles were described and their relations to refractive errors and to asthenopia and other

* Read before the Syracuse Academy of Medicine, June 2, 1903.

functional disturbances worked out. Then, again, a great variety of functional disturbances which formerly never were thought to be associated with eye strain, are now known so to originate. Add to this the fact that the ocular anomalies detailed do not, as a rule, occur separately, but in various combinations, that they are to some extent interdependent, and often persistently latent; add also the very important condition that the untrained observation of the patient is the sole reliance in many important measurements—and a sufficient explanation is afforded for the occasional failure, even under the most favorable conditions, to give early relief to symptoms of this class. There are many cases in which it is, I believe, absolutely impossible at an early stage to give relief to symptoms which the history of the case strongly indicates to be due to some form of eye strain; failure being due in a large number of cases to the extreme latency of the errors. Although patients are very apt to desert the physician who fails to relieve them, a few remain under observation a sufficient period of time to enable one to make a tolerably complete study of the case. The following cases are in point:

CASE I.—Mrs. F. L. S., aged thirty years, was referred to me in May, 1889, on account of asthenopia and headache and some conjunctivitis. Right eye vision was $\frac{5}{8}$ and the only glass she accepted was $+ .25D$ cyl. axis 90° , and even that was indefinite. Left eye V. was $\frac{5}{8}$ partly, and was brought up to the normal standard by a $+ .75D$ cyl. axis 100° . Glasses were prescribed accordingly, but I believe that she got very little benefit from them. In November, 1897, she returned, special stress being laid at this time on the occipital headaches which had been present for years, but had increased in severity during the preceding months. She complained also of difficulty in moving the head. On examination in '89 I had noted the presence of a slight tendency to convergence. In '97 this tendency had diminished, and there was also absolutely no tendency to vertical deviation demonstrable. The muscle balance in other words was normal. A little later, homatropine was used and a moderate amount of hyperopia hitherto latent, was made manifest. Glasses were ordered in accordance with the findings, but without benefit so far as the headaches were concerned. In March, 1899, she came again on account of a floating spot in front of the right eye. She reported that she had less headache, but the improvement appears to have been due to the relief of nasal irritation and to the cure of an anal fissure. In February, 1901, she came again on account of her headaches. A slight alteration was made in her glasses on account of a variation in her refraction. Muscle balance was at this time perfect. She had now been under observation for eleven years and the most accurate tests at my disposal had revealed practically no departure from a perfectly normal

muscle balance. On June 24th, I had to note that the headache had been so severe and persistent that she had passed the four previous weeks in bed. Her physician had found that a large amount of relief was afforded by keeping her eyes under the influence of atropine. After two weeks of continuous use of atropine, the refraction varied but little from previous tests, but she now showed for the first time a tendency for the right eye to deviate upwards about 1° . A prism of 1° was incorporated with her glasses so as to allow the right eye to occupy what appeared to be its position of rest. On July 18th she reported that she was much better, but that there was still severe headache. Examination showed 1° of hyperphoria to be still uncorrected by her glasses. This was corrected by additional prisms, and on the 25th she reported that she had had very little headache since wearing the extra prism; nothing compared to the previous headaches. In February, 1903, she came because she had recently some soreness of the head. She now revealed a total degree of hyperphoria of 4° , in addition to which, she showed $.75D$ more hyperopia than could be demonstrated even when her eyes were under the influence of atropine.

The main facts of this case are briefly stated, but suffice to show the high degree of latency of refractive and muscular errors which may obtain in apparently ordinary cases of asthenopia and headache, and they illustrate the fact that the apparently accurate correction of all the manifest errors without relief to the symptoms does not necessarily mean that these symptoms are not ocular in origin.

CASE II.—Mrs. C. H., aged thirty years, first seen on September 23, 1892, on account of headache commencing in the eyes and passing through the temples to the occiput and vertex; worse on steady use of the eyes; subject to it for five or six years; bright light apt to cause headache. Mother and sister have sick headache. Got glasses from an optician three years ago which made her worse; reading causes vertigo. Examination revealed $.50D$ astigmatism in the R., $.25D$ in the L., latent divergence 3° , fundus normal. The use of a mydriatic revealed $.25D$ of latent hyperopia. She was given glasses correcting the astigmatism and partly correcting the divergence. They caused headache and nausea. Two months later they were made slightly weaker and the correction for the divergence was omitted without any improvement. The mydriatic used on the first occasion was homatropine. Thinking that this comparatively weak mydriatic might have failed to reveal all the latent hyperopia, I now used atropine. The total result, however, on two different occasions being a very slight increase in the amount of error revealed. I did not see this patient again until seven years later, when she was sent to me by her physician on account of headache, dizziness, and insomnia. For the same reason as previously, she had not worn her glasses. Examination of the refraction showed essentially the same conditions as before; a latent divergence of 2° and absolutely

no hyperphoria. Scopolamine, which is a more powerful cycloplegic than atropine, was used on two consecutive days. It revealed the same amount of astigmatism as was found at the first examination—and .75D of hyperopia. There was no gain from this examination. On February 19, 1902, she returned with the same symptoms. She had in the meantime obtained some temporary benefit from intranasal treatment, but examination now revealed for the first time in ten years a slight tendency for the left eye to turn higher than the right. This error was corrected in her glasses, but on December 5, 1902, she returned, still having a headache at the vertex and above the eyeballs. The L. hyperphoria now measured 1° , and she was given a temporary prism to correct it, and on December 10th, she reported that she had been much better since wearing it. In order to test the matter, the prism was left out. On December 19th she reported that the leaving off of the prism was followed by the return of the pain. She was therefore given a glass correcting the greater part of the vertical deviation. On January 12, 1903, she reported a return of the pain. I now excluded one eye with a ground glass, so as to annul the binocular function, and thus permit the excluded eye to assume its position at rest. On January 14th she reported that she had been decidedly more comfortable, and examination of the muscle balance revealed a left hyperphoria of more than 2° and an exophoria of 5° or 6° . She was given prisms correcting the greater part of these errors, and reported on the 19th that she had been comfortable with the prisms, the head and eyes feeling all right. They were therefore incorporated with her glasses for constant wear.

Although I am quite prepared to hear of the return of the symptoms in a greater or less degree, the observations as detailed show conclusively that ocular errors may be so latent as to baffle for a long time all efforts for their detection and at the same time to be the cause of most persistent and troublesome symptoms.

CASE III.—F. T., aged twenty-three years, was first seen in May, 1894. His symptoms were headache, with confusion in the head after reading, and some intolerance of light. Examination disclosed some mixed astigmatism in the L. eye; the ophthalmometer showing a much higher degree of astigmatism than the glasses he accepted. The muscular equilibrium was normal. I prescribed for him three times within three months without giving him any relief, except for one week after the first prescription. I was entirely unable to demonstrate any fault in the balance of the ocular muscles. After the third prescription, he disappeared. He reappeared in my office on September 9, 1897. He reported that he was better without than with the glasses prescribed by me; that in the interval he had been prescribed an indefinite number of pairs of glasses and other treatment, without relief. His chief symptom now was intense photophobia. Examination showed a little less astigmatism than at his earlier tests, and also, what had never given any indication of its presence before, a latent deviation of the L.

higher than the R. of $\frac{1}{2}^\circ$. His refraction was carefully worked out, both without and with a mydriatic, the result being that glasses not very different from those originally prescribed, with addition of a $\frac{1}{2}^\circ$ prism to offset the deviation were ordered. Some relief was at once experienced, and more deviating tendency soon manifesting itself, was corrected by prisms until, on October 2nd, he reported himself much more comfortable and able to be out on the shady side of the street without colored glasses, whereas, two weeks before he could scarcely look out of doors with colored glasses. With fuller correction he reported on October 13th that he was able to be out in the sunlight for a short time without colored glasses and had, in fact, worn none for five days. The total deviating tendency now equaled 2° , and was fully corrected in the glasses prescribed. This patient made a steady improvement. In September, 1899, he reported that he had worked out of doors the past two years without smoked glasses. In September, 1900, he reported that he had recently had some photophobia in the middle of the day, and until quite recently had had no asthenopia. His glasses accurately corrected his hyperphoria. February, 1901, he has been able to read two hours in the evening without any sensation of fatigue, his eyes feeling better than for seven or eight years. On February 1st he took a position as bookkeeper, but was obliged to give it up on account of commencing return of symptoms. Examination showed a higher degree of hyperopia and correction of this error gave complete relief, as shown by a note of October 20, 1901, when he reported his condition as so much improved that he contemplated taking up the study of medicine. I have not seen him since that date.

The consideration of these and similar cases brings out certain points. First, that the most careful investigation and the apparently accurate correction of all the discoverable errors may completely fail to relieve the symptoms; may, in fact, aggravate them, and yet the symptoms may still be due to eye strain. Indeed, the fact that glasses which are apparently correct aggravate the symptoms is, I believe, in most cases evidence that the latter do arise from eye strain, and that a latent error is present, usually an error in the muscle balance. In all the cases described, the possibility of the existence of the kind of error which was finally found to be present was fully appreciated from the first. In the second place, I believe that lapse of time is a very important factor in the elucidation of the true nature of these cases. The action of the accommodation in neutralizing refractive errors is so automatic and persistent that all efforts to annul it sometimes fail to be completely effective, even atropine and other powerful cycloplegics failing to bring about a complete relaxation. The natural relaxation due to advancing years often reveals a hitherto latent error. Similarly the instinctive tendency to see single and

not double causes the extrinsic muscles to contract so as to maintain a parallelism of the visual lines. This contraction is so constantly maintained that the muscles get into a condition of tonic spasm which is extremely persistent. Just as we have a spasm of the accommodation in cases of hyperopia and astigmatism in the interest of clear vision, so we have a spasm of the extrinsic muscles in the interest of single vision, and the latter is far more difficult to demonstrate than the former. It is surprising what high degrees of error may remain latent year after year and produce a train of symptoms absolutely intractable to treatment until the manifestation and correction of these errors has occurred. I have seen some cases which have inclined me to think that not only is lapse of time the only thing which will reveal the true nature of the ocular conditions, but that old age itself is reached in some cases before the true condition becomes manifest.

I have put these remarks together, not so much to trouble you with the technical details of cases of this class, as to show to some extent that the conditions with which the ophthalmologist of to-day has to deal are essentially new, when compared with the conditions under which glasses were prescribed only one generation back, and also to indicate that he may completely fail at first to relieve symptoms which are obviously due to eye strain yet may be doing all that can possibly be done for the patient in the present state of our knowledge, and may be on the high road to final success.

State Board of Medical Examiners of New Jersey.—The regular examination of the State Board of Medical Examiners of New Jersey will be held at Trenton, N. J., on Tuesday, Tuesday evening, and Wednesday, October 20th and 21st. Application for admission to this examination should be made before October 10th. Applicants must possess a high school diploma issued after four years of study, or its equivalent as determined by the State Superintendent of Public Instruction, and must have had four courses of medical lectures of seven months each in different years.

Consolidation of Columbian and National Medical and Dental Schools.—The medical and dental departments of the National University and Columbian University have consolidated, and at the beginning of the fall term the former medical and the dental students of the National University will matriculate as Columbian students. Emil A. de Schweinitz, dean of the medical school of Columbian University; J. Hall Lewis, dean of the dental department; and Dr. Baker, dean of the medical department of the National University, the representatives of the two universities, have had the question of the merger of the medical and dental departments under consideration for some time, and the arrangements have recently been consummated.

Proceedings of Societies.

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Fifty-third Annual Meeting, held in York, Pa., on September 22nd, 23rd, and 24th.

(Editorial Correspondence.)

The fifty-third annual meeting of the Medical Society of the State of Pennsylvania took place at York, Pa., on September 22nd, 23rd, and 24th. The meeting was a thoroughly representative one, both in quality and quantity, and was worthy of the place that the State of Pennsylvania has held in the forefront of medicine from colonial days. On Monday night most of the hotel accommodation was already disposed of, the Colonial Hotel (the headquarters of the Society) having, in addition to its extensive accommodation, to press into service the rooms in the now dismantled Royal Hotel across the street. The accommodation thus afforded was, however, so good that none of us who were "crowded out" had any reasonable ground for complaint.

On Monday evening, Dr. F. W. McCormack, of Bowling Green, Ky., informally addressed the Executive Committee of the society, urging the adoption of the method of organization recommended by the American Medical Association, which has now been adopted in thirty-two States. This method places the counties under the charge of a limited number of supervising councilors, who should afford that outside assistance to a thorough organization of the medical profession, rendered necessary so often by local antipathies and jealousies. The matter was discussed by Dr. Cyrus L. Stevens, the secretary, Dr. John B. Roberts, of Philadelphia, and others and was taken under advisement.

THE PROCEEDINGS

Tuesday Morning:

The opening session was held at the Courthouse on the 22nd, at 9.30 a.m., Dr. William M. Welch, of Philadelphia, President, in the Chair. There was an attendance of about 125. After prayer by the Rev. E. T. Jeffries, D. D., a most interesting and cordial address of welcome was read by the Hon. M. B. Gibson, Mayor of York, who is closely connected by family relationships with the medical profession. After eulogizing the climatic and hygienic conditions of York, it dealt largely with the early medical history of Pennsylvania, not from hackneyed sources, but from personal research among old diaries. As an instance, he related that "Charles Gordon, a settler along the Delaware in 1635, wrote to his brother, a physician in England, as follows: 'If you desire to come hither, you may come as a planter or a merchant, but as a doctor of medicine I cannot advise you, for I hear of no diseases here to cure, but of some cutted legs and fingers.'" "The first known surgeon to settle west

of the Delaware was Jan Peterson, who was employed by the settlers during the year 1638." Dr. Thomas Cadwallader opened the first medical school in 1730 and published the first medical work in this county, which was printed by Benjamin Franklin in 1745. These and many other interesting details went to make a model address of welcome for a State convention.

Dr. N. C. Wallace, President of the York County Medical Society, also extended the cordial welcome of that society to the visitors, and Dr. Isaac C. Gable, Chairman of the Committee on Arrangements, detailed the programme, both scientific and social, laid down for their profit, instruction, and amusement.

Dr. McCormack was then called upon by the President to address the meeting. He referred again to the subject of medical organization, in much the same terms as last night. His remarks were warmly received, and a vote of thanks was tendered to him.

Votes of thanks were unanimously passed to the Mayor of York, the President of the County Society, and the Rev. Thomas Jeffries, the last of whom in responding, invited the members to come and inspect his little school. Among other things he spoke of the number of objects of historical interest collected there, and especially of the door of the old city hall through which the patriots passed during the stirring times of 1777, and he promised if they came "to show them the door"—in its actual, not metaphorical signification.

DELEGATES FROM THE AMERICAN PHARMACEUTICAL ASSOCIATION.

Dr. John B. Roberts advised the President of the presence of Messrs. Remington and Patton, delegates from the American Pharmaceutical Association, and they were unanimously tendered the courtesies of the meeting and admitted to the floor.

The meeting then adjourned, and the executive council then went into session for the transaction of routine business.

Tuesday Afternoon:

In the afternoon the society was called to order by the President at 2 o'clock. Dr. H. M. Neale, of Upper Lehigh, not being present, the first address was that in Surgery by Dr. W. L. Estes, of Bethlehem.

THE ADDRESS IN SURGERY.

Dr. Estes spoke on the personal equation of the patient in surgical operations, discussing the subject under the headings of (1) heredity; (2) environment and habits; (3) disposition or temperament; (4) age; (5) sex; (6) nativity; (7) physical condition at time of operation; and (8) extent and locale of the operation, as affecting the prognosis and result of surgical procedures. He laid the greatest stress on heredity, environment, and habits, and the physical condition of the patient, in the order named. He insisted on a personal thorough examination by the surgeon himself before operation as of vital importance in every case, particularly in relation to the discovery of "latent diseases." As regards evil environment and habits, they were not confined to cities. The advantages of an out-

door life, as in the case of the farmer, were often offset by deficient sleeping accommodation, improper food, leading to errors of assimilation, and improper nurture in childhood. Excessive beer drinkers were bad subjects for anæsthesia, and were prone to phlegmonous conditions; whisky drinkers were troublesome to anæsthetize. Vegetarians did not stand loss of blood well, and reacted poorly to saline infusions. Full blooded country people were not good subjects always for anæsthesia. For them, chloroform was often the anæsthetic of choice.

As to the condition of the patient at time of operation, the various laboratory tests, blood examination were undoubtedly of great service, but he still thought they held an undue prominence, displacing the more important thorough clinical examination. He said that while the senses of hearing and touch were well trained in medical students, sufficient stress was not laid upon education of the eyes. As in medicine, so in surgery. The study of how to prevent the need of operations was even more important than the study of how to perform them successfully.

Dr. Estes was followed by Dr. John G. Clark, of Philadelphia, who made the address in Obstetrics.

Dr. Seneca Egbert, of Philadelphia, delivered the

ADDRESS IN HYGIENE AND STATE MEDICINE.

Dr. Egbert stated that the population of the districts in the United States in which a system of mortality registration had been organized had increased from 19,059,440 in 1890, to 28,807,269 in 1900, with a decrease in the death rate in the registration areas from 19.6 to 17.8 per 1,000. He forcibly demonstrated the value of improved sanitary regulations, such as purification of the water supply, supervision of milk and food, quarantine regulations, etc., and dwelt at considerable length on the value of preventive measures in contagious and infectious diseases.

THE ADDRESS IN NEUROLOGY

was given by Dr. Charles B. Mayberry, of Retreat.

Dr. Mayberry considered the means of securing better results in the treatment of the insane, which he believed would result from the carrying out of the following suggestions:

(1) More extensive instruction in psychiatry, both didactic and clinical, in the courses of our medical schools.

(2) The construction of small psychopathic hospitals for the separate treatment of the acute curable insane.

(3) The organization of a system of out-patient departments by which the discharged patients may be kept under observation for one year after leaving the institution.

(4) The creation of a central laboratory for the investigation of the pathological conditions underlying mental disease.

Dr. E. B. Heckel, of Pittsburgh, followed Dr. Mayberry with the

ADDRESS IN OPHTHALMOLOGY.

Dr. Heckel referred to the fact that ophthalmology as a distinct branch of medicine was of very ancient

origin, and that the drugs which were used twenty-five years ago, e. g., mercury, silver nitrate, and atropine stood out prominently in optical therapeutics to-day, the advance consisting in the new and improved methods of using them. The treatment of glaucoma, he stated, had made but little progress and iridectomy was still to be preferred to sympathectomy, massage being a valuable adjunct, and cytology, while it has been used but a short time, gave indications of good results in sympathetic ophthalmia.

Dr. Neale having appeared by this time, he delivered

THE ADDRESS IN MEDICINE.

Dr. Neale took for his subject *The Practical Treatment of Pulmonary Tuberculosis*. He stated that he believed the most important therapeutic factors in the treatment of this disease were fresh air, sunlight, rest, and cleanliness, in conjunction with proper food and careful medical supervision. He believed that cures could be effected as well at home as in the higher altitudes. He described in detail the method of treatment at the White Haven Sanitarium, one of the important factors being the use of large quantities of milk and eggs. In addition, internal doses of creosote and iodine compounds, and inunctions of euophene, oil of anise, oil of wintergreen, oil of roses, and olive oil were administered.

These proceedings were followed by the reading of a paper entitled *Is There a Medical Profession?* by Dr. Thomas B. Davis, of Pittsburgh, which he defined the various aspects of the term, and pointed out the absence of any great organic body recognized alike by the public, the profession, and the State.

Dr. W. B. Lowman, of Johnstown, read a paper in which he emphasized the importance and necessity of the establishment of hospitals in conjunction with all the large industrial institutions, as a humane measure and also as a sound business investment, as employees thus cared for would be less likely to institute legal proceedings for slight injuries and in perhaps hopeless cases. He gave a history of the Cambria Hospital, from the time it was founded in 1887 with twelve beds, and during the first year of its existence treating 395 cases, as compared with 3,708 cases treated in 1902.

Dr. G. W. Wagoner, of Johnstown, discoursed on the medical expert witness, contending that the term "witness" was a misnomer. Three hundred years ago what are now called expert witnesses were termed advisers of the court, a far fitter title as more accurately describing what their duties should be. It was the lawyers who stood in the way of their being recognized as such to-day, and this resulted in their present enforced position as partisans of one side or the other, with the attendant unseemliness of controversial conflict on scientific matters in courts.

Finally, Dr. Aloysius O. J. Kelly, of Philadelphia, replied to some strictures on a previous address by him, in which he was supposed to have made pointed criticisms of the Board of Medical Examiners of the State of Pennsylvania. He denied that he had the board of this or any other particular

State in mind in his strictures, but reaffirmed his original contention of the impropriety of vague, ambiguous, or unsettled questions in the examination of candidates, and gave several instances in illustration. He laid special stress upon the importance of the examiner being a practical physician familiar with the progress of medicine. He believed that the questions should be limited to the practical and applied aspects of the subject, and not be purely academical. He recognized the value of a knowledge of the general principles of medicine and surgery and in no sense recommended the abolition of didactic lectures. He believed practical tests in addition to the written examinations, or the submission to the student of a number of case histories for study, discussion, and suggestion would be a valuable augmentation to the examination. When a candidate is asked to give the treatment for a certain condition, he should be required to set forth his reasons therefor.

The meeting then proceeded to unfinished business. Another meeting of the executive council took place at 5 p. m.

THE EXECUTIVE COUNCIL.

At the first session of the Executive Council, held on Tuesday morning, the Committee to Examine School Books presented its report, which contained the following statements:

The school text-books on physiology and hygiene contain many errors and much misleading information and very serious omissions. The books, as a whole, cannot be recommended, although some few are good. We are sorry to be compelled to say that the books supervised by the Woman's Christian Temperance Union Committee are the most reprehensible.

If the object of the Woman's Committee is the teaching of prohibition, then let them openly and honorably designate their books by truthful titles, and not resort to the contemptible method of using a scientific term to cloak an ethical principle.

It is evident to any fair-minded observer that while a grain of strychnia is a poison, the one-hundredth part thereof is not. It is absurd to teach that cider, beer, wine, etc., in any dose is a poison, whereas, we all know that a tumbler of pure alcohol is. This is but the morbid expression of fanatics, who are guided by zeal rather than by wisdom.

The committee recommends that a committee be appointed to consider the advisability of State supervision of the school text-books pertaining to anatomy, physiology, hygiene, and all allied subjects.

The chairman, Dr. Lauterbach, in presenting the report, stated that all the members of the committee were themselves temperate men, as regarded the use both of tobacco and alcohol. Not one used tobacco in any form, and two of them had never used it, while one had never used any alcoholic beverage, and the rest used them only moderately and occasionally. They were essentially temperance advocates, though not prohibitionists. Disclaiming any other interest in the matter than to bring out the truth, whatever it be, the speaker stated that the committee had "found many errors and much misleading information, and have discovered very serious omissions" in these books. He further stated: "We regret that every member of the State Medical Society has

not had the opportunity enjoyed by the committee of reading the miserable trash forced upon our children under the misleading captions of anatomy, physiology, and hygiene."

The report was handed over to the business committee, which, in turn, reported at the meeting of the Executive Council held on Tuesday evening. After some acrimonious discussion it was laid on the table.

Other subjects handled by the Executive Council on Tuesday were the reports of the Committee on Scientific Business, the reports of the District Censors, of the Committee on Publication, the Committee on Pharmacy, the Committee on Food Adulterations, the Committee on Delegates to Other Societies, and the State Board of Medical Examiners.

A business committee was appointed, consisting of Dr. W. S. Foster, of Allegheny county; Dr. John B. Donaldson, of Washington county; Dr. W. B. Lowman, of Cambria county; with Dr. John B. Roberts, of Philadelphia county, as chairman. The report of the treasurer showed a fair balance in the treasury. The report of the secretary showed that the Juniata County Medical Society had failed to pay its assessment during the past two years, and thus forfeited its affiliation. The membership of the fifty-three affiliated societies showed a total of 3,665, giving a net gain of 145 as against a net gain of 118 in the previous year. One new society, Wyoming, had been organized, with a membership of 13, offsetting the loss of the Juniata Society and adding an additional member.

Tuesday Evening:

On Tuesday evening an open session was held in the handsome auditorium of the York High School. The chair was taken at 8 p. m. by Dr. Herbert H. Herst, of Allentown, the first vice-president, in the unavoidable absence of Ex-Lieut. Governor Chauncey F. Black, who was to have delivered an address of welcome. Owing to his absence, which was due to sickness, this address had to be foregone. The presidential address was then delivered by Dr. William M. Welch, of Philadelphia, in the presence of some fifteen hundred people, consisting not only of the members and medical visitors with their ladies, but of many of the citizens also.

DR. WELCH'S PRESIDENTIAL ADDRESS.

Dr. Welch first recited something of the origin and progress of the society. It was conceived in Chester in 1847 and born in Lancaster in 1848, with a muster roll of fifty-nine. Its membership, he said, was now 4,000, but with over 8,000 physicians in the State, the present membership was still far too small. Dr. Welch then dwelt at considerable length on the great triumphs effected in the last century, and more especially towards its end, in the domain of preventive medicine, instancing particularly vaccination and smallpox, typhus and typhoid, cholera, etc. Regarding consumption, Dr. Welch pleaded for registration. He said that when the public interests, the lives of hundreds, even thousands of others, depended upon the proper control of a transmissible disease,

there was no true breach of the medical secret involved in its compulsory registration. Properly managed, it was not at all necessary that such a practice should involve publicity. He deprecated the placarding of houses, as being unnecessary publication, but strongly urged the compulsory registration of consumption, and pointed in support to what had already been effected in the city of New York, in which registration had been followed by a thirty-five per cent. reduction in the death rate.

Dr. Welch then passed on to the subject of yellow fever. He eulogized the work of General Leonard Wood as military governor of Cuba, in devoting his care to the stamping out of that dread disease which, until the American occupation of that island, had not only decimated the community there and was never absent, but had been a death dealing scourge to the entire civilized world. These results, he said, were due, not so much to General Wood as to Dr. Wood, but it must not be forgotten that had he not been general as well as doctor, all his farsighted efforts might have vainly pleaded for recognition and support. There were people in the army to-day who spoke of him slightly as the "doctor-general," but Dr. Wood's fame would go down to posterity far more on those achievements due to him as a doctor than to those due to him as a soldier, though the speaker was far from desiring to belittle him in that capacity. Dr. Welch then referred to the work of establishing the relation between the mosquito and the transmission of yellow fever, and deplored the untimely death of Dr. Jesse Lazear, where heroic experiment had helped, through his death—a true martyr to science—to settle this most important question. Of Major Walter Reed and his work, he spoke also in eulogistic terms.

Dr. Welch then returned to the affairs of the society, referring to the change in the methods of representation and the additions made to the Executive Council. The conditions of medical study next engaged his attention, and he closed by enforcing the fact that learning was not all that was necessary to the formation of a true physician. Common sense and honesty of purpose were equally necessary. "It is the doctor's duty to oppose the wrong, to uphold the right, and all this with only the thought of the good that comes from a good reputation."

Dr. Welch's address was listened to with great attention, notwithstanding its length. It occupied something like an hour and forty minutes in delivery. Orchestral music ushered in and closed the meeting.

On its adjournment, shortly before 10 p. m., a reception was given by the York County Medical Society to the State Medical Society and its guests at the handsome club house of the York Country Club. A series of trolley cars were lined up outside the High School for the conveyance of the guests. The club house was crowded, and each visitor in turn was presented to all the members of the committee. The club house was admirably decorated, and the members of the Reception Committee certainly earned the thanks of all the visitors for the laborious pains which had evidently been taken to ensure their enjoyment.

Wednesday Morning:

At the meeting held on Wednesday morning, Pittsburgh was selected as the next place of meeting, and the following officers were elected:

President, Dr. W. B. Ulrich, of Chester; first vice-president, Dr. I. C. Gable, of York; second vice-president, Dr. P. Y. Isenberg, of Norristown; third vice-president, Dr. F. W. Coover, of Harrisburg; fourth vice-president, Dr. F. L. March, of Westmoreland. Dr. Cyrus L. Stevens, of Athens; Dr. Theodore B. Appel, of Lancaster; and Dr. George W. Wagoner, of Johnstown, were reelected secretary, assistant secretary, and treasurer, respectively. Trustees: Dr. Henry Beates, Jr., of Philadelphia; Dr. Luther B. Kline, of Catawissa; Dr. Theodore P. Simpson, of Beaver Falls; Dr. Thomas D. Davis, of Pittsburgh; Dr. Thomas M. Livingston, of Columbia; and Dr. Horace G. McCormick, of Williamsport, all hold over. New trustees are Dr. Richard Armstrong, of Lock Haven; Dr. I. C. Gable, of York, and Dr. William M. Ross, of Altoona. Members of the House of Delegates of the American Medical Association: Dr. Alexander G. Craig, of Lancaster; Dr. George W. Guthrie, of Wilkes-Barre; Dr. William S. Foster, of Pittsburgh, and Dr. Webster B. Lowman, of Johnstown, were elected. Dr. William T. Bishop, of Harrisburg; Dr. Hiram S. McConnell, of New Brighton; Dr. John B. Roberts, of Philadelphia, and Dr. William M. Welch, of Philadelphia, hold over till 1904. The following were elected as alternates: Dr. Walter Lathrop, of Hazleton; Dr. J. B. Donaldson, of Washington; Dr. W. M. Guilford, of Lebanon; Dr. S. M. Wood, of Philadelphia; Dr. J. H. Montgomery, of Erie; Dr. E. V. Swing, of Chester, and Dr. W. M. Beech, of Allegheny. Dr. W. S. Foster, of Pittsburgh, was elected chairman of the Committee on Arrangements and Credentials for the next convention.

Wednesday Afternoon:

On Wednesday afternoon a large party of ladies and gentlemen was taken by trolley and hacks to the York water works and heard an interesting lecture with a practical demonstration of the method of water filtration employed. After the lecture, the party was taken to the Country Club where an excellent supper was served.

In the evening a theatre party was given by the York County Medical Society at the Opera House, to witness a performance of *The Taming of the Shrew*.

The exhibit of pharmaceutical preparations, surgical instruments and appliances, and medical books, being in the Odd Fellows' Hall, some two blocks away from the Court House, was perhaps not so well attended by physicians as it would have been had it been in the same building with the sessions. Nevertheless, the attendance was good. Many of the principal firms in each of these departments were represented, there being between thirty-five and forty exhibitors. The following is a list of the exhibitors:

Canton Surgical & Dental Chair Company, Chas. Lentz & Sons, Clark & Roberts, D. V. Brown, E. Fougere & Co., Fairchild Brothers & Foster, F. A. Davis Company, Fairmount Publishing Company, Henry K. Wampole & Co., Hoose Brothers, Horlick's Food Company, J. W. Hughes, Keasby & Mattison, Keystone Electric Company, Kress & Owen Company, Lea Brothers, Lincoln Spring Company, Mellin's Food Company, Parke, Davis & Co., Pheno-Bromate Chemical Company, Smith, Kline & French Company, Sharp & Dohme, the American Peroxide & Chemical

Company, the Chas. Willms' Surgical Instrument Company, the G. F. Harvey Company, the J. E. Limeburner Company, the Maltine Company, the National Drug Company, the Oakland Chemical Company, the Physicians' Supply Company, of Philadelphia, the Valzahn Company, William R. Warner & Co.

KENNETH W. MILLICAN.
(To be concluded.)

Correspondence.

LETTER FROM MONTREAL.

McGill University.—The Montreal General Hospital.—The Spitting Nuisance.—The University of Bishop's College.—An Honor to Sir James Grant.—Vaccination.

MONTREAL, September 22, 1903.

The Medical Department of McGill University opened its seventy-second session on the 22nd of September. Lectures began the following morning, and will continue until the 21st of May, when the annual examinations will be held. The matriculation examination has been made more difficult by the addition of physics and chemistry. The annual fees at this institution are \$125. A very large Freshman class has registered. The following new appointments have been made to the medical staff: Dr. J. G. McCarthy, assistant professor in anatomy; Dr. J. G. Horsey, assistant professor in pharmacology; Dr. R. A. Kerry, lecturer in pharmacology; Dr. S. Ridley McKenzie, lecturer in clinical medicine; Dr. John McCrae, lecturer in pathology; Dr. D. A. Shirres, lecturer in neuropathology; and Dr. D. D. MacTaggart, lecturer in medicolegal pathology. The following have been added to the list of demonstrators: Dr. C. K. P. Henry, and Dr. A. R. Pennoyer, assistant demonstrators in anatomy; Dr. W. L. Barlow, and Dr. C. P. Keenan, assistants in clinical surgery; Dr. G. K. Grimmer, and Dr. W. H. Jamieson, assistant demonstrators in laryngology; Dr. D. Patrick, assistant demonstrator in gynæcology; and Dr. D. W. B. Gillies, and Dr. C. A. Peters, assistant demonstrators in clinical medicine. Dr. H. Wolferstan Thomas has resigned his fellowship in pathology to accept an offer from the School of Tropical Medicine in Liverpool.

The regular quarterly meeting of the governors of the Montreal General Hospital was held last week at which the financial and medical reports for the past quarter were received and discussed. According to the report of the medical superintendent for the quarter ending the 30th of June, 813 patients were treated. There were sixty-seven deaths, of which twenty-six occurred within three days of admission, thus making the mortality rate for ordinary hospital cases five per

cent. In the out-door departments there were 8,651 consultations, an increase of 543 over the corresponding quarter of last year. The ordinary income for the quarter was shown to be \$16,054.44, against \$18,501.08 for the same quarter of last year. The expenditure for the quarter was \$24,916.78. During the first six months of the present year legacies were received amounting to \$18,475.

Ladies of the County Woman's Christian Association, of Montreal, have been making observations on the spitting habit, having in view the prohibition of the disgusting nuisance. One member thus delivers herself of her observations: "To show the need of legislation to prevent spitting in the streets, one of our members in a walk down the west side of Bleury Street, from St. Catherine to Craig, at 7.30 a. m., counted on that sidewalk 193 new expectorations. On the same sidewalk on the same day, between 1.30 and 2 p. m., were counted 194 additional expectorations. At each count half dry expectorations numbered at least as many more. Truly the denizen of Montreal fully exercises his or her right to spit."

The thirty-third annual session of the Faculty of Medicine of the University of Bishop's College was opened on the 15th of September, with the usual introductory lecture. The session will continue to the 28th of May, the date of convocation. The professorial staff has had added to it Dr. Hebert in the department of anatomy, while Dr. Deeks has resigned his lectureship. The schedule of lectures has been entirely remodeled, so as to give a graded course and provide for the greatest economy in the student's work. The fees remain as before, \$100 for the year and \$30 for graduation.

The pleasing intelligence was received in the city on the 17th inst. that Sir James Grant, of Ottawa, had the day before received notification from Brussels, Belgium, that he had been elected an honorary member of the International Surgical Congress of the World, which had just closed its session in that city recently.

According to reports recently compiled by the Medical Department of Montreal, vaccinations are on a large increase. This may be put down to the fact that the recent by-law requires all manufacturers, railway corporations, schools, and public institutions to secure from their employees and attendants certificates that they have been successfully vaccinated. During 1902 there were made in Montreal no fewer than 96,796 vaccinations, of which number 52,301 were in schools and 44,495 in factories. In 1901 there were 36,970. For twenty years the yearly average ran about 3,000. A surprising table is that showing

that, out of 503 victims of smallpox, no fewer than 443 had never been vaccinated. Especially to be commended is the action of the railway companies operating lines out of Montreal. These now exact certificates of vaccination from every one they employ.

Therapeutical Notes.

A Lotion for Syphilides.—A. Renault, according to *Médecine moderne* for September 2nd, recommends the following lotion for the maculæ that sometimes follow popular syphilides:

- R Corrosive sublimate....20 centigrammes (3 grains);
Ammonium chloride....60 centigrammes (9 grains);
Eau de cologne.....40 grammes (10 drachms);
Distilled water.....100 grammes (3 ounces).
M. Apply on compresses for 20 minutes daily.

A Mixture for "La Grippe."—*Revue française de médecine et de chirurgie* for August 31st advises the following:

- R Antipyrine2 grammes (30 grains);
Sodium benzoate.....2½ grammes (37½ grains);
Cherry laurel water.....10 grammes (150 minims);
Syrup of codeine.....25 grammes (6¼ drachms);
Boiled water.....100 grammes (3 ounces).
M. Divide into three doses; take one hour apart.

With the second dose, take from 4 to 16 grains of quinine hydrochloride.

The Glycerophosphates Hypodermically.—*Revue française de médecine et de chirurgie* for August 31st, recommends for neurasthenics, cardiosthenics, and convalescents the daily use of from 30 to 60 minims of the following, hypodermically:

- R Sodium glycerophosphate } of each.....5 grammes
Caffeine benzoate } (75 minims);
Strychnine arsenate.....20 grammes (5 drachms);
Distilled water.....100 grammes (3 ounces).
M. For hypodermic use.

A Laxative Powder.—According to *Bulletin médical* for September 2nd, the following powder causes two painless, but copious, alvine discharges and does not create a habit:

- R Powdered sugar.....70 grammes (17½ drachms);
Powdered licorice root } of each.....20 grammes
Senna leaves } (5 drachms);
Precipitated sulphur.....10 grammes (150 grains);
Vanilline20 centigrammes (3 grains).

M. A teaspoonful during the evening meal, either in water, or in dampened unleavened bread.

For Rhachitic Children.—*Journal de médecine interne*, for August 15th, recommends to prevent decalcification of bone, a prescription of Ausset, of Lille:

- R Acid calcium phosphate....5 grammes (75 grains);
Tincture of essence of anise.....10 grammes
(150 minims);
Simple syrup.....200 grammes (6 ounces).
M. Tablespoonful every morning, fasting.

A Tonic Syrup for Children.—Iodine, says *Presse médicale* for August 8th, is a well-known agent in infantile therapeutics; in the following preparation it is well borne:

- R Tincture of iodine.....5 grammes (75 grains);
Extract of catechu.....20 grammes (5 drachms);
Alcohol10 grammes (2½ drachms);
Glycerin100 grammes (3½ ounces);
Syrup of gooseberries.....200 grammes (6¼ ounces).
M. Tablespoonful before the midday meal.

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THE PENNSYLVANIA STATE MEDICAL SOCIETY.

The fifty-third annual meeting of this society, held on September 22nd, 23rd, and 24th, at the historic old city of York, Pa., has been a very successful, and in some respects a noteworthy one.

It was noteworthy on account of its attendance, which amounted to over two hundred and fifty; on account of the quantity and quality of the papers presented; of the many prominent physicians who took part in the proceedings—a matter hardly to be wondered at, when it is remembered that in its recruiting area, and only about three hours' journey away, is the city of Philadelphia; and lastly on account of certain topics of interest that came into prominence during the convention. The hospitality of the York County Medical Society was generous and untrammelled, and the visitors met with much personal courtesy at the hands of their hosts. What else could be needed, not only to achieve success, but what is far more important; to deserve it? Only one thing—the weather—lay outside the "sphere of influence" of the hosts; and, fortunately, in that respect they were singularly favored.

Of the special topics that came before the assembly, outside of the purely scientific programme, we may refer briefly to two: 1. The efforts made by Dr. McCormack, acting on behalf of the American Medical Association, to add the State of Pennsylvania to the other thirty-two States that have already fully adopted the method of organization recommended by that association; and, 2, the report of the Committee to Examine School Text Books. This committee, which consists of Dr.

Louis J. Lauterbach (chairman), of Philadelphia, Dr. William A. N. Dorland, of Philadelphia, Dr. Olin F. Harvey, of Wilkes-Barre, Dr. George A. Parker, of Southampton, and Dr. Robert B. Watson, of Lock Haven, presented a unanimous report. The general trend of its researches after four years of reviewing the authorized school text books on physiology, during which period it had examined fifty-one such books, goes to prove that the large majority of them are written largely to push the views of faddists, in that they are greatly deficient in much physiological teaching that is of the utmost importance for the cultivation among the future race of the *mens sana in corpore sano*; that they devote a space out of all proportion to its relative importance to the injurious effects of tobacco and alcohol; that the sections on these subjects are written, for the most part, in an extremist spirit, being full of exaggeration, gross inaccuracies, the presentation of one side of moot questions as ascertained scientific fact, and in some instances, at least, that statements are made that are not substantiable. The worst of these offenders are ostensibly published under the auspices of associations whose very nature denotes preconceived partisanship, rather than an impartial search for truth, even though it lead to heaven's fall. *Fiat justitia, ruat cælum* can certainly not be taken as their motto with any sense of propriety.

No thoughtful person can be blind to the vast evils of intemperance in anything, and especially in some things, such as alcohol and tobacco. But though, in days when communication was restricted, the principle of doing evil that good may ensue, might perhaps have pointed to certain temporary benefits for its justification, in these days of universal and instantaneous communication of intelligence such an excuse is no longer available, and "intemperate temperance," operating by means of "the untruth of disproportion" and the garbling and misrepresentation of facts to suit predetermined ends, is the greatest of all enemies to the very cause it is intended to uphold. We trust that the extended researches of this committee into the character of the various "physiological" text books used in our schools may be ultimately gathered together in some form available for wide dissemination among the thinking and unbiased portion of the community, both lay and medical.

THE BRITISH ARMY MEDICAL OFFICER.

The recent report of the Royal Commission on the South African War contains no doubt much that is painful to the people of the United Kingdom. We can sympathize with them, for we as a people have more than once felt humiliated at the blunders committed by certain branches of our army. As regards strictures on the Royal Army Medical Corps, we judge from an editorial article in the *Journal of Tropical Medicine* for September 1st, the gentlemen of the corps resent not so much the conclusions of the commission itself as certain testimony of civilian medical men that has been printed in the report. The writer quotes as current the expression "those army doctors, and you know what they are." The writer protests against such talk and also against the common implication that the medical officers of the British army are to a great extent inferior to their fellows engaged in civil practice.

No doubt there are some incompetent men in the Royal Army Medical Corps. So there are in the medical corps of every army, so there are in the civil practice of medicine, so there are in the pursuit of all vocations; and so there always have been and always will be, such are the limitations of human attainments. While we are quite ready to say that no pains should be spared to reduce these incompetents to the minimum, we also feel that every body of men is entitled to be judged by its highest achievements. It may be that there were medical officers on duty with the British troops in the Boer War who were not skilled in the early diagnosis of typhoid fever, for example (one of the subjects of slighting civilian testimony cited by our contemporary), or in the treatment of that disease, but that fact, while regrettable, should not be allowed to dim in the slightest degree the lustre of the medical corps as a whole, for the contributions of Longmore, Aitken, and others cast it wholly into the shade. In fact, medical literature teems with the brilliant additions made to our knowledge by medical men connected with the British military service. We believe that as a body those men are highly trained and endowed with capabilities not at all below those of the medical officers of other armies; furthermore, we believe that they are in a high degree conscientious, full of devotion to the advance-

ment of medicine, to the preservation of the soldier's health, and to the alleviation of his sufferings when stricken with disease. We think the *Journal of Tropical Medicine* is amply justified in its protest.

HEADACHE AS A SYMPTOM.

This was the title of a very valuable paper contributed by Dr. H. Bert Ellis, of Los Angeles, to the proceedings of the recent annual meeting of the California State Medical Society. It is published in the September number of the *California State Journal of Medicine*. Although Dr. Ellis is an ophthalmologist, the professor of ophthalmology in the College of Medicine of the University of Southern California, he freely recognizes that chronic and recurrent headaches are often due to other causes than ocular defects. Still, he believes that the eye is a factor in the ætiology of sixty per cent. of all headaches, and that it is the chief factor in about eighty per cent. of all headaches of the frontotemporal variety. Occipital headache, he thinks, seldom appears by itself as a manifestation of eye strain.

Headaches of ocular origin, says Dr. Ellis, are often dull and heavy than very sharp, and when they are not due to a diseased condition they are most commonly found in persons who make considerable use of the muscles of accommodation and convergence. When, he says, a patient is found to complain of headache after riding in a car, after going to the theatre or to church, or after shopping, it is reasonable to suspect the eyes. When headache occurs as the result of an ocular defect, it almost always comes on within a few hours after the eyes have been taxed, but sometimes it holds off until the next day, especially when the eyes have been used to a considerable extent at night. In patients subject to attacks of sick headache it is always wise to look for eye defects. They occur in about sixty per cent. of such cases, and their correction leads to amelioration and frequently to cure.

Neurotic headache, even if it is accompanied by errors of refraction, is seldom permanently relieved by correcting such errors. Even if there are manifestations of ocular defects, headaches that come on in the night are not due to them. Slight degrees of astigmatism are the commonest causes of ocular headache, hyperopia, and even myopia are not un-

common causes, and heterophoria may at times be the only ætiological element.

Headache is common as a result of nervous exhaustion from almost any cause, and particularly from prolonged mental effort or worry. When it is caused by anæmia it is generally frontal. In congestive headache the pain is of a throbbing character. Toxic headaches are frontal and deep seated. Syphilitic headache is neuralgic and limited to the temples. Stomachic and hepatic headaches are usually occipital or vertical, but they may be frontal or general. Ocular headache must not be confounded with neurasthenic headache, which is probably toxic and continues after every source of peripheral irritation has been removed.

MERCURY CYANIDE AS A SURGICAL ANTISEPTIC.

It is now some four years since Laborie published in an excellent thesis presented at Bordeaux in 1899 the results of his experiments on the antiseptic powers of mercury cyanide in an alkaline solution. Notwithstanding the favorable results presented by him the use of this salt of mercury seems not to have become so general as might have been expected. My own attention having been drawn to its value, I have made extensive use of it, and during the past three years have relied exclusively upon this salt of mercury as an antiseptic, having used it freely in abdominal work as well as in children's surgery with complete success and in no instance, not even in the case of very young patients, have there been any indications of toxic action.

The question of its toxicity has given rise to much discussion, and as far back as 1867 Tardieu and Roussin, in their treatise entitled "*Etude médico-légale et clinique sur l'empoisonnement*," say that it is extremely poisonous, because it unites two eminently poisonous elements. Rabuteau says in his "*Eléments de thérapeutique et de pharmacologie*" (1887) that the cyanides, when introduced into the digestive canal, act more by the hydrocyanic acid than by the metal they contain. On the other hand, Denigès believes that its toxic properties have been greatly exaggerated and states that in reality they are no greater than those of mercury bichloride.

Clinically, it has been demonstrated that mercury cyanide in solution is not more toxic and is

perhaps even less so than the bichloride. This fact is probably due to the great resistance to decomposition offered by the cyanide. It is very stable in solution. Cyanogen fixes mercury and mercury fixes cyanogen, so that while each of these elements alone possesses a high degree of toxicity, this toxicity should naturally be very much diminished by the combination which is so stable. The toxicity is still further diminished when an alkali has been added to the solution, since such addition still further increases the stability of the chemical combination between the two elements.

This salt, which was discovered by Scheele, may be obtained in various ways, Scheele having produced it by boiling a mixture of thirty grammes of powdered mercury oxide, forty grammes of Prussian blue, and four hundred grammes of water, and filtering while hot. Desfosses proposes the following excellent method: Mix fifty grammes of potassium ferrocyanide, one hundred grammes of mercury sulphate, and five hundred grammes of distilled water. Maintain the mixture at the boiling temperature for from twenty to twenty-five minutes, adding sufficient water to keep the amount up to the original quantity. Filter while boiling, washing the precipitate with a little additional boiling water; boil the filtrate for from five to ten minutes in order further to concentrate it, and allow to stand, when the cyanide will crystallize out. Finally, separate the crystals and dry at a temperature below 100° C.

When pure the mercury cyanide appears in the form of white anhydrous prisms soluble in eight parts of cold water, in two of boiling water, in twenty of alcohol, and in four parts of glycerin. It does not respond to all the reactions of the other mercury salts nor to all those of the simple soluble cyanides. For instance, it is not precipitated by potassium iodide, and causes no precipitate when mixed with a solution of silver nitrate. It is decomposed by the addition of strong acids with the liberation of free hydrocyanic acid.

Mercury cyanide does not irritate the tissues and does not coagulate albumen, two very important factors in its availability for use as an antiseptic. Solutions of this salt attack metals when not rendered alkaline by the addition of soda in some form, but when rendered alkaline they do not attack

With an alkaline solution of mercury cyanide of a strength of 1 to 1,000 or of 1 to 2,000, nothing of the kind occurs. The hands remain soft, the tactile sense remains perfect, and the skin surface is not coagulated, blood is readily removed by immersing the hands in the solution. All of these facts I can testify to having, as stated above, relied exclusively on mercury cyanide as an antiseptic for the last three years. The formula which I have employed is as follows:

To sum up, it may be stated that mercury cyanide is a powerful antiseptic, seventeen milligrammes added to one litre of bouillon preventing the development of microorganisms as proven by the experimental work of Laborie. It presents great advantages over other antiseptics now in vogue for the reason that it does not attack instruments nor the epidermis, nor does it coagulate the albuminoids, while it is absorbed with difficulty by the tissues. Lastly, it has been conclusively proven by clinical trial that its toxicity is no greater and in all probability far less than that of mercuric bichloride.

strikingly good results from the use of a decoction of the plant in water or milk in the treatment of pneumonia.

OUR ANACHRONISTIC PHARMACOPOEIA

The successive issues of the *Pharmacopœia of the United States* have all borne the date of the concluding year of some decade of a century. Thus, to restrict ourselves to recent decades, we have the pharmacopœia of 1870, that of 1880, and that of 1890, and are promised that of 1900 some time in the year 1904. This is not as it ought to be. We are quite aware that the gentlemen who are kind enough to serve on the committee of revision always encounter problems that make delay unavoidable, and we realize that the final result of their labors is of such a high order of merit that we can well afford to wait for it. But why should the dates of every tenth year be pertinaciously adhered to? The members of the committee, being progressive men, will certainly infuse into the forthcoming pharmacopœia information that was not at our disposal prior to the year 1903. Surely they will not wish to figure in history as having been possessed of this information three years in advance of the rest of the world—for they are honest men.

If the next pharmacopœia is not published until 1904, why should it not be known as the pharmacopœia of 1904? Our British brethren do not hesitate to designate their pharmacopœia as of any odd year. We can perceive no advantage in the progression by even decades. And this leads us to ask why we should not have annual or at least frequent supplements to the pharmacopœia. Why should we have had to wait for years before vaseline was officially named "petrolatum" (an absurd name)? The *British Pharmacopœia* promptly recognized antipyrine, and the official recognition of tried and approved drugs ought, in our opinion, always to be not too slow. Now that the committee of revision has been made a permanent body, always constructively in session—that is, always ready to act—vacancies by death, disability, or resignation to be filled by the remaining members, it is in a position to issue supplements at all times. The science of therapeutics and the art of pharmacy move fast in these days, and we fail to see why their progress should often have to wait for ten years for official recognition. Let the pharmacopœia be dated in the year of its actual issue, and let independent bodies even if they

are no more than pamphlets, be issued at short intervals. The frequent publication of revised editions of the bulky dispensatories is something that we may well imitate in the official formulary.

SURTOUT PAS TROP DE ZELE!

In effect, the Chicago commissioner of health, Dr. Arthur R. Reynolds, utters this exclamation in his *Bulletin* for the week ending September 12th, wherein he says that physicians of Chicago, school principals, teachers, and parents of school children are officially notified that they are not required, either by State law or city ordinance, to report cases of contagious disease, suspected or actual, to any authority except the Contagious Diseases Division of the City Health Department. "This public notice," he adds, "is made necessary by a renewal of the efforts of the Superintendent of Compulsory Education of the School Board to operate an independent health department of his own. His motive is no doubt a laudable one, and if his efforts were guided by a moderate degree of professional intelligence and qualification for the work, they might be beneficial instead of detrimental. As it is, they are meddling, mischievous, and sensational." This is a severe arraignment of the superintendent, but we have no doubt that Dr. Reynolds is justified in making it.

INJECTIONS OF ALCOHOL IN THE TREATMENT OF CAVERNOUS ANGEIOMA.

Evidence seems to be accumulating to show that mild measures may suffice to cure small angiomas. Lilienfeld (*Beiträge zur klinische Chirurgie*, xxxviii, 2; *Berliner klinische Wochenschrift*, August 17th) relates the case of a girl nine years old who had such a congenital tumor of one of her fingers. The injections were made into the normal tissue surrounding the tumor. At first a cubic centimetre of a fifty per cent. solution of alcohol was injected, and the strength of the solution was subsequently increased to seventy per cent. In the course of eight months more than fifty injections were administered. There was some burning pain after each injection, but it subsided in a few minutes. The patient was cured.

QPM: 5.17, 5.20, 5.21, 5.22, 5.23, 5.24, 5.25, 5.26, 5.27, 5.28, 5.29, 5.30, 5.31, 5.32, 5.33, 5.34, 5.35, 5.36, 5.37, 5.38, 5.39, 5.40, 5.41, 5.42, 5.43, 5.44, 5.45, 5.46, 5.47, 5.48, 5.49, 5.50, 5.51, 5.52, 5.53, 5.54, 5.55, 5.56, 5.57, 5.58, 5.59, 5.60, 5.61, 5.62, 5.63, 5.64, 5.65, 5.66, 5.67, 5.68, 5.69, 5.70, 5.71, 5.72, 5.73, 5.74, 5.75, 5.76, 5.77, 5.78, 5.79, 5.80, 5.81, 5.82, 5.83, 5.84, 5.85, 5.86, 5.87, 5.88, 5.89, 5.90, 5.91, 5.92, 5.93, 5.94, 5.95, 5.96, 5.97, 5.98, 5.99, 6.00, 6.01, 6.02, 6.03, 6.04, 6.05, 6.06, 6.07, 6.08, 6.09, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.22, 6.23, 6.24, 6.25, 6.26, 6.27, 6.28, 6.29, 6.30, 6.31, 6.32, 6.33, 6.34, 6.35, 6.36, 6.37, 6.38, 6.39, 6.40, 6.41, 6.42, 6.43, 6.44, 6.45, 6.46, 6.47, 6.48, 6.49, 6.50, 6.51, 6.52, 6.53, 6.54, 6.55, 6.56, 6.57, 6.58, 6.59, 6.60, 6.61, 6.62, 6.63, 6.64, 6.65, 6.66, 6.67, 6.68, 6.69, 6.70, 6.71, 6.72, 6.73, 6.74, 6.75, 6.76, 6.77, 6.78, 6.79, 6.80, 6.81, 6.82, 6.83, 6.84, 6.85, 6.86, 6.87, 6.88, 6.89, 6.90, 6.91, 6.92, 6.93, 6.94, 6.95, 6.96, 6.97, 6.98, 6.99, 7.00, 7.01, 7.02, 7.03, 7.04, 7.05, 7.06, 7.07, 7.08, 7.09, 7.10, 7.11, 7.12, 7.13, 7.14, 7.15, 7.16, 7.17, 7.18, 7.19, 7.20, 7.21, 7.22, 7.23, 7.24, 7.25, 7.26, 7.27, 7.28, 7.29, 7.30, 7.31, 7.32, 7.33, 7.34, 7.35, 7.36, 7.37, 7.38, 7.39, 7.40, 7.41, 7.42, 7.43, 7.44, 7.45, 7.46, 7.47, 7.48, 7.49, 7.50, 7.51, 7.52, 7.53, 7.54, 7.55, 7.56, 7.57, 7.58, 7.59, 7.60, 7.61, 7.62, 7.63, 7.64, 7.65, 7.66, 7.67, 7.68, 7.69, 7.70, 7.71, 7.72, 7.73, 7.74, 7.75, 7.76, 7.77, 7.78, 7.79, 7.80, 7.81, 7.82, 7.83, 7.84, 7.85, 7.86, 7.87, 7.88, 7.89, 7.90, 7.91, 7.92, 7.93, 7.94, 7.95, 7.96, 7.97, 7.98, 7.99, 8.00, 8.01, 8.02, 8.03, 8.04, 8.05, 8.06, 8.07, 8.08, 8.09, 8.10, 8.11, 8.12, 8.13, 8.14, 8.15, 8.16, 8.17, 8.18, 8.19, 8.20, 8.21, 8.22, 8.23, 8.24, 8.25, 8.26, 8.27, 8.28, 8.29, 8.30, 8.31, 8.32, 8.33, 8.34, 8.35, 8.36, 8.37, 8.38, 8.39, 8.40, 8.41, 8.42, 8.43, 8.44, 8.45, 8.46, 8.47, 8.48, 8.49, 8.50, 8.51, 8.52, 8.53, 8.54, 8.55, 8.56, 8.57, 8.58, 8.59, 8.60, 8.61, 8.62, 8.63, 8.64, 8.65, 8.66, 8.67, 8.68, 8.69, 8.70, 8.71, 8.72, 8.73, 8.74, 8.75, 8.76, 8.77, 8.78, 8.79, 8.80, 8.81, 8.82, 8.83, 8.84, 8.85, 8.86, 8.87, 8.88, 8.89, 8.90, 8.91, 8.92, 8.93, 8.94, 8.95, 8.96, 8.97, 8.98, 8.99, 9.00, 9.01, 9.02, 9.03, 9.04, 9.05, 9.06, 9.07, 9.08, 9.09, 9.10, 9.11, 9.12, 9.13, 9.14, 9.15, 9.16, 9.17, 9.18, 9.19, 9.20, 9.21, 9.22, 9.23, 9.24, 9.25, 9.26, 9.27, 9.28, 9.29, 9.30, 9.31, 9.32, 9.33, 9.34, 9.35, 9.36, 9.37, 9.38, 9.39, 9.40, 9.41, 9.42, 9.43, 9.44, 9.45, 9.46, 9.47, 9.48, 9.49, 9.50, 9.51, 9.52, 9.53, 9.54, 9.55, 9.56, 9.57, 9.58, 9.59, 9.60, 9.61, 9.62, 9.63, 9.64, 9.65, 9.66, 9.67, 9.68, 9.69, 9.70, 9.71, 9.72, 9.73, 9.74, 9.75, 9.76, 9.77, 9.78, 9.79, 9.80, 9.81, 9.82, 9.83, 9.84, 9.85, 9.86, 9.87, 9.88, 9.89, 9.90, 9.91, 9.92, 9.93, 9.94, 9.95, 9.96, 9.97, 9.98, 9.99, 10.00, 10.01, 10.02, 10.03, 10.04, 10.05, 10.06, 10.07, 10.08, 10.09, 10.10, 10.11, 10.12, 10.13, 10.14, 10.15, 10.16, 10.17, 10.18, 10.19, 10.20, 10.21, 10.22, 10.23, 10.24, 10.25, 10.26, 10.27, 10.28, 10.29, 10.30, 10.31, 10.32, 10.33, 10.34, 10.35, 10.36, 10.37, 10.38, 10.39, 10.40, 10.41, 10.42, 10.43, 10.44, 10.45, 10.46, 10.47, 10.48, 10.49, 10.50, 10.51, 10.52, 10.53, 10.54, 10.55, 10.56, 10.57, 10.58, 10.59, 10.60, 10.61, 10.62, 10.63, 10.64, 10.65, 10.66, 10.67, 10.68, 10.69, 10.70, 10.71, 10.72, 10.73, 10.74, 10.75, 10.76, 10.77, 10.78, 10.79, 10.80, 10.81, 10.82, 10.83, 10.84, 10.85, 10.86, 10.87, 10.88, 10.89, 10.90, 10.91, 10.92, 10.93, 10.94, 10.95, 10.96, 10.97, 10.98, 10.99, 11.00, 11.01, 11.02, 11.03, 11.04, 11.05, 11.06, 11.07, 11.08, 11.09, 11.10, 11.11, 11.12, 11.13, 11.14, 11.15, 11.16, 11.17, 11.18, 11.19, 11.20, 11.21, 11.22, 11.23, 11.24, 11.25, 11.26, 11.27, 11.28, 11.29, 11.30, 11.31, 11.32, 11.33, 11.34, 11.35, 11.36, 11.37, 11.38, 11.39, 11.40, 11.41, 11.42, 11.43, 11.44, 11.45, 11.46, 11.47, 11.48, 11.49, 11.50, 11.51, 11.52, 11.53, 11.54, 11.55, 11.56, 11.57, 11.58, 11.59, 11.60, 11.61, 11.62, 11.63, 11.64, 11.65, 11.66, 11.67, 11.68, 11.69, 11.70, 11.71,

A recent contribution to our knowledge of this affection, which is liable to be confounded with syphilitic disease and with diphtheria, has been made by GORDON & LEITCH.^{*}

Berliner klinische Wochenschrift, August 17th). It is said to affect for the most part only one tonsil, and its course is generally unaccompanied by fever. In the first stage there is an exudate; in the second, an ulcer. Bacteriological examination reveals the presence of a spindle-shaped bacillus and of spirilla. Apparently the bacillus is the cause of the disease. In the treatment pencillings with tincture of iodine or with a sixty per cent. solution of chromic acid and insufflations of methylene blue are recommended.

HEAT IN THE TREATMENT OF GONORRHOEA.

Veritably this is the age of the preponderance of the imponderables in therapeutics. Dr. Albert Marcus, of Munich (*Dermatologische Zeitschrift*, August, 1902; *Berliner klinische Wochenschrift*, August 17, 1903), reports excellent results from the treatment of gonorrhœa by means of his "mucous membrane warmer" introduced into the urethra once or twice a day and allowed to remain for from twenty minutes to an hour and a half, at a temperature of from 113° to 136° F.

A MISSIONARY DISPENSARY IN MANILA.

The September number of the *Spirit of Missions* contains a very interesting account, by Miss Clara Thacher, of the work of the Dispensary of Luke, the Beloved Physician, in Manila. An incident mentioned by Miss Thacher well shows the character of the medical profession. A young Filipino wished to have one of his eyes removed, in order that, for cosmetic purposes, a glass eye might be substituted for it. "Does the dispensary furnish glass eyes free?" asked the doctor. "I'm afraid," Miss Thacher replied, "we are hardly wealthy enough for that yet, doctor." "Well," said the doctor, "I'll make a present of the eye."

THE BITE OF A SEA SERPENT.

It is not with the bite of the fabled sea serpent, we may imagine, that Dr. Kermorgant (*Annales d'hygiène et de médecine coloniales; Berliner klinische Wochenschrift*, August 24th) is dealing when he relates the case of a man who in thirteen hours after having been bitten by a marine snake in New Caledonia died, his death being preceded by dimness of vision, vertigo, paralysis of the limbs, inability to speak, cyanosis of the lips, dilatation of the pupils, complete anæsthesia of the skin of the back, and weakness and irregularity of the heart.

News Items

Society Meetings for the Coming Week:

MONDAY, September 28th.—Medical Society of the County of New York; Lawrence, Mass., Medical Club (private); Cambridge, Mass., Society for Medical Improvement; Baltimore Medical Association.

TUESDAY, September 29th.—Rome, N. Y., Medical Society; Boston Society of Medical Sciences (private).

WEDNESDAY, September 30th.—Auburn, N. Y., City Medical Association; Berkshire, Mass., District Medical Society (Pittsfield).

THURSDAY, October 1st.—New York Academy of Medicine; Brooklyn Surgical Society; Society of Physicians of the Village of Canandaigua, N. Y.; Boston Medico-psychological Association; Obstetrical Society of Philadelphia; United States Naval Medical Society (Washington); Medical Society of City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

FRIDAY, October 2d.—Practitioners' Society of New York (private); Clinical Society of the New York Post-Graduate Medical School and Hospital; Baltimore Clinical Society; the Manhattan Clinical Society.

SATURDAY, October 3d.—Manhattan Medical and Surgical Society, New York (private); Miller's River, Mass., Medical Society.

Changes of Address.—Dr. Byron H. Caples, to 110 West One Hundred and Fourth Street. Dr. F. J. Bowles, to 121 West Ninety-third Street. Dr. J. E. Perry, to 704 East Twelfth Street, Kansas City, Missouri.

NEW YORK, CITY AND STATE.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of cases and deaths reported for the week ending September 19, 1903:

DISEASES.	Week end'g Sept. 19.	
	CASES.	DEATHS.
Measles	62	3
Diphtheria and croup	182	23
Scarlet fever	88	6
Smallpox	1	..
Chickenpox	12	..
Tuberculosis	301	122
Typhoid fever	102	16
Cerebrospinal meningitis .....	..	4
Totals	748	174

The "Refracting Optician."—A citizen is about to bring suit against a dry goods firm for injury alleged to have been done to his daughter's eyes by the improper "refracting" of an employee. An oculist is said to have stated that irreparable injury had been done through strain, and the father demands damages in the sum of \$50,000.

Albany Medical College, the medical department of Union University, began its seventy-third session on September 22d. The introductory lecture was delivered by Professor Willis G. MacDonald, D. D., and prayer was offered by Chancellor Raymond, of the university. Dr. R. M. Pearce, of Philadelphia, has been appointed adjunct professor of pathology and bacteriology to succeed Dr. George Blumer, resigned. Dr. Pearce will take Dr. Blumer's position as the director of the Bender Hygienic Laboratory, and will have as his assistants Dr. E. McD. Stanton, of New York, and Dr. Charles K. Winne, of Mt. Wilson, Md. Dr. Pearce and Dr. Stanton have reported at the laboratory, and Dr. Wilson is expected in a few days. Dr. Pearce's appointment is the only change in the faculty of the college.

The New Health Officer, of Hempstead, Nassau county, is William Rhame, who was appointed recently by Daniel Lewis, commissioner of health.

Inspector of New York State Insane Asylums.—The State commissioner in lunacy has appointed William L. Russell, of the Willard State Hospital, medical inspector of institutions for the insane.

The Nassau Hospital Association, of Mineola, L. I., has issued an appeal to the clergy and officials of the county to take up special church collections for the benefit of the institution. Contributions may be sent to Thomas W. Albertson, of Mineola.

The German and the Mount Sinai Hospitals, of this city, benefit by the will of the late Dr. Joseph Schnetter, who died on August 16th, the former to the extent of \$35,000, the latter to \$15,000, both bequests being intended to furnish free beds for ailing women.

New Hospital in Queens.—The health department has prepared plans for the building of a hospital for contagious diseases in the borough of Queens, on the old Vandeburg farm, of twenty-two and a half acres, located on the Flushing road, near the Jamaica town line. The buildings planned for the initiation of the work will cost about \$75,000.

The Buffalo Academy of Medicine held its regular meeting on the 15th instant. George E. Fell read a paper on Lake and River Current Observations and Their Value to the City, and A. L. Benedict one on The Hamburg Filter Plant and Filtration of Water in Holland. Henry R. Hopkins, Walter D. Greene, and William G. Bissell took part in the discussion which followed.

The Long Island State Hospital.—The patients of the Long Island State Hospital, at Kings Park, Long Island, celebrated the Annual Field Day on Wednesday, September 23d, with an excellent programme of sports, which was participated in by men and women patients and the employees and nurses. Music was furnished by the band of the institution under the leadership of Joseph Beugnot, and the field officers included the hospital staff and several distinguished visitors.

Wayne County Medical Association.—This organization is an offshoot of the old Wayne County Medical Society, and bids fair to rival the parent body in numbers and influence. A session was held on the 2nd instant, at Clyde, N. Y., with the following programme: The Medical Treatment of Chronic Diarrhoea, by Allen A. Jones, of the University of Buffalo; Pelvic Abscesses, by F. A. Myers, of Sodus; Friedrich's Ataxia, by M. A. Brownell, of Newark; Cerebral Thrombosis, by T. H. Hallett, of Clyde; Some of the Difficulties of the New York Medical Association During Its Earlier Career, by D. Colvin, of Clyde. The officers of the association are: President, J. W. Putnam, of Lyons; vice-president, M. A. Brownell, of Newark; treasurer, D. Colvin, of Clyde; secretary, G. S. Allen, of Clyde.

The Death Rate in Brooklyn for the week ending September 19th—14.20—is the lowest in its history, either as city or borough.

The State Commission in Lunacy has awarded the contracts for the construction of the new nurses' home at the Long Island State Hospital at King's Park, amounting altogether to over \$98,000. The building will have a rubble foundation.

A Trachoma Hospital.—It is said that the board of health has secured a large frame house at One Hundred and Nineteenth Street and Pleasant Avenue for the purpose of establishing a hospital to be used solely for the treatment of trachoma. There are nearly 100,000 cases of the disease in the city.

Memorial to the Late Robert Newman.—At a special meeting of the Faculty of the New York School of Physical Therapeutics, held September 14, 1903, the following resolutions were adopted:

"Whereas, Time in his unswerving course, has removed from our midst an associate, knowledge of whom engendered not only respect for his honesty of purpose and indomitable courage of conviction, but personal affection because of the uniform kindly courtesy of his deportment, therefore be it

"Resolved, That the sympathies and condolences of the members of the Faculty of the New York School of Physical Therapeutics, be, and hereby are, extended to the bereaved family of the late Dr. Robert Newman, and that, in token of the esteem in which they hold his memory, the secretary be instructed to forward a copy of this resolution to his family." Clarence Edward Skinner, M. D., President of the Faculty; Hermann Grad, M. D., secretary of the Faculty.

PHILADELPHIA AND PENNSYLVANIA

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

Week end'g Sept. 12. Week end'g Sept. 19.

DISEASES.	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox ..	4	5	7	1
Diphtheria ..	40	9	62	9
Scarlet fever.	68	4	57	6
Typhoid fever.	135	9	82	10
Consumption ..	..	48	..	57
Cerebrospinal fever.	..	6	..	1

This table shows a decrease of forty-two in the total of cases of contagious diseases as compared with the preceding week.

Vacation of Dr. Burns.—Dr. Stillwell C. Burns, of the Medico-Chirurgical College, has started with Mr. John R. Vaughan for a month's hunting trip in the Rangeley Lakes region, Maine.

International School of Hygiene.—This organization has selected one man from each country in the world as a representative. Dr. J. K. Shell, of Philadelphia, has been invited to represent the United States at the next annual conference, which meets at Guttenburg, Germany, next fall.

New Almshouse Site.—A tour of inspection of the upper Delaware river front has been made by the city authorities, with a view to obtain a desirable location for the new almshouse, for which an appropriation of one and one-half million dollars has been made.

Records for X Ray Examination and Therapeutics.—Dr. M. K. Kassabian, who has charge of the x ray laboratory in the Philadelphia Hospital (Blockley), has devised a means by which the records of diagnosis and with the x rays, may be placed upon a scientific basis. The records are so arranged that the history of the case, the technics employed in the diagnosis and treatment, position of the patient, character of the tube, vacuum, distant of anode from the patient and plate, etc., may all be comprehensively recorded. The data of the treatment comprise the size of the spark, the current source, voltage, ampérage, number of interruptions, etc. A description of these records will shortly be published.

Opposition to the Quarantine Regulations.—The new quarantine regulations adopted by the bureau of health are not meeting with the approbation of those who have been forced to abide by them. It is asserted that only the poor are made to abide by them, and it is likely that a number of suits for damages will result therefrom. One citizen has complained to the Bureau that his best suit of clothes was ruined by the disinfecting process to which it was submitted at the Philadelphia Hospital and that he had to borrow a suit to enable him to go to headquarters to register his protest. His eight year old daughter was stricken with scarlet fever last Monday and the next day the house was quarantined. The complainant was not at home, but he was searched for and taken back to his house. He said: "I had to take off my clothes when I got to the Philadelphia Hospital and then they made me get into a bath. Afterwards my suit was returned. You never saw such a change. I didn't recognize the coat at all. It had been black, but when I got it back it was quite brown and the pants were so shrunk I could hardly get into them." It is said it is the intention of the board of health to modify the order, so that fumigation and disinfection will be a less drastic ordeal.

Samaritan Hospital.—The new buildings of this institution were formally opened on September 14th, and comprise a useful and imposing addition to the hospital. Many more patients can now be accommodated, while the old building will be utilized for the dispensaries. The new addition contains modern and thoroughly equipped operating rooms and amphitheatre. The maternity department will be under the supervision of Professor Applegate, of Bridgeton, N. J., recently elected. The buildings are surrounded by large porches, and capacious grounds for convalescing patients. The institution as heretofore will be under the direct supervision of Mr. C. A. Gill. The training school for nurses has been enlarged and much reorganized by the recently appointed Mrs. M. J. Baker, formerly head nurse at the Philadelphia Hospital.

CHICAGO AND ILLINOIS.

Statement of Mortality for the Week Ending September 19, 1903, compared with the preceding week and with the corresponding week of 1902. Death rate computed on estimated mid-year pop-

ulations of 1,885,000 for 1903, and of 1,820,000 for 1902:

	Sept. 19, 1903.	Sept. 12, 1903.	Sept. 20, 1902.
Total deaths, all causes	496	504	487
Principal causes of death			
Acute intestinal diseases	77	92	65
Apoplexy	12	11	9
Bright's disease	29	34	25
Bronchitis	5	15	8
Consumption	50	57	69
Cancer	17	16	16
Convulsions	10	10	9
Diphtheria	10	10	7
Heart diseases	32	39	29
Measles	1	0	2
Nervous diseases	19	22	31
Pneumonia	31	22	43
Smallpox	1	0	0
Scarlet fever	1	2	3
Suicide	7	15	9
Typhoid fever	21	21	38
Violence (other than suicide)	33	26	26
Whooping cough	4	0	6

A Hospital for the Swedish Baptists of Chicago and vicinity is likely soon to be erected in the village of Berwyn just outside the city limits, at a cost of \$50,000.

Rush Medical College, now the medical department of Chicago University, is soon to benefit by the expenditure of a large portion of \$10,000,000 in new hospitals and laboratories.

A Hospital for Contagious Diseases in Chicago, Ill., is to be built in connection with the county hospital. It will be four stories high, 154 by 54 feet, of fireproof construction, and will hold 116 patients. The cost is estimated at \$70,000.

National Temperance Hospital.—A committee, appointed by the Frances E. Willard National Temperance Hospital, purchased property on the 10th instant at 349 Lincoln Street, Chicago, Ill., for \$1,500.00. The plot is twenty-four by one hundred and fifteen feet, and is three hundred and eighty-nine feet north of West Polk Street.

Assistant Bacteriologist to Health Department.—An original entrance examination for the position of Assistant Bacteriologist of the Health Department will be held October 22, 1903. The salary attached to the position is \$1,000. Those desiring to take the examination must have been residents of Chicago for one year and must file applications prior to the examination. Application blanks may be procured at Room 400, City Hall.

GENERAL.

The Riverside Accident Hospital, of Buffalo, N. Y., now at Michigan and Swan Streets, moved on the 16th instant to the larger quarters at 118 Swan Street.

Flint Hospital, Detroit.—The common council of the city of Detroit, Mich., has voted to establish a free city bed at this institution, endowing it with \$500 per annum.

Quackery in Racine, Wis.—The physicians of Racine have decided to wage war upon quacks, with whom their town seems to be especially infested. Representations will be made to the district attorney and a series of vigorous prosecutions inaugurated.

Owosso, Mich., Will Have a City Hospital if the committee appointed by the mayor, Dr. A. L. Arnold, on the 16th instant is able to secure the necessary funds to purchase the house and grounds of a large private sanitarium situated south of the city.

The Washburn-Sawyer-Burnett County Medical Society held its first annual meeting at Spooner, Wis., on the 9th instant. J. B. Trowbridge, of Hayward, was elected President; J. P. Cox, of Spooner, vice-president; and Dr. Hering, of Shell Lake, treasurer.

New Wisconsin Medical Society.—The Columbia County Medical Society was organized at Portage, Wis., on the ninth instant with fourteen members. The following officers were elected: President, J. J. Howard, of Columbus; vice-president, John Binnie, of Poynette; secretary and treasurer, F. D. Bentley, of Portage.

Michigan's Medical Law in Operation.—An osteopath, who settled recently in Charlotte, Mich., fitted up an office in elaborate style before he discovered that the legislature in its last session had passed a law excluding him and his brethren from practice. He has sold out and gone to the more "liberal" State of Nebraska.

The Wisconsin College of Physicians and Surgeons begins its eleventh year on September 29th with ten additions to the faculty, including Herman Reineking, of Sheboygan, formerly President of the State medical society, and A. J. Patek, editor of the Wisconsin Medical Journal. It is expected that the college will shortly become the medical department of the State university, a step advantageous to both.

The Medical Society of Virginia held its thirty-fourth annual meeting at Roanoke on September 15th, some three hundred physicians being in attendance, with John S. Upshur, of Richmond, as President. Fifty-seven new members were added to the roster. The programme included a banquet tendered by the wives of the local physicians and a trip to the mountain town of Fries.

The Jewish Free Hospital, of Louisville, Ky., will shortly begin the erection of a three story structure, absolutely fireproof. The administration building will be separate from the hospital proper, but connected by a passage way. The hospital will contain six wards and nine private rooms, including an obstetrical department and a ward for contagious diseases. It is to be situated at the corner of Floyd and Kentucky Streets.

American Society of Superintendents of Nurses' Training Schools.—A convention of this body will be held in Pittsburgh, Pa., on October 7th, 8th, and 9th. The programme is: The Power and Responsibility of the Society in Public Action, by Miss L. L. Dock; The Better Teaching of Hygiene in Training Schools for Nurses, by Miss McIsaac; Some Common Weaknesses in Hospital Construction, by Miss Anna M. Goodrich, of the New York Hospital. Three members will discuss briefly The Study of Current Events as a subject proper to training schools, and descriptions and demonstrations of new nursing methods and appliances will be given.

Emergency Hospital, Washington, D. C.—The term as resident physician in this institution of Dr. John Dunn expires on October 1st, when he will be succeeded by Dr. W. R. Perkins, now first assistant physician. Dr. Dunn will practise in Philadelphia.

The Cleveland College of Physicians and Surgeons.—The medical department of Ohio Wesleyan University was opened on September 16th in the auditorium of the college building on the corner of Central Avenue and Brownell Street. This is the forty-third annual session.

The Medical Society of City Hospital Alumni, of St. Louis, Mo., held its regular meeting on the 17th instant in the board of education building, Ninth and Locust Streets, at 8 p. m. Francis L. Reder read a paper on Perityphlitic Abscess. R. B. H. Gradwohl, of 5001 Fairmount Avenue, is secretary of the society.

The Sioux County Medical Society has been organized in Alton, Ia., with a nucleus of fifteen physicians. The following officers were elected: President, A. DeBey, of Orange City; vice-president, F. J. Smith, of Alton; secretary and treasurer, C. S. McCarty, of Hawarden. Meetings will be held monthly.

The City and County Hospital, of San Francisco, Cal., will probably soon be replaced by a modern and decently equipped institution, the present structure being entirely inadequate from a scientific and professional point of view. It was erected thirty years ago as a makeshift, but has persisted to the present day, notwithstanding its drawbacks.

Not Race Suicide.—The astonishingly low birth-rate recorded at Washington, D. C., for the week ending September 12th, was due, it is said, not to carelessness on the part of physicians or to sudden idleness on the part of parents, but to a clerical error which misinterpreted the figures 103—the real number—for 34—the number recorded. The mistaken clerk is stated to be an octogenarian, one of the kind "that never dies or resigns, but simply dries up in office and blows away."

The Consolidated Medical Schools of Toronto.—On September 30th the University of Toronto will open its new medical faculty, made up of its previous medical department and the consolidation therewith of Trinity Medical School. The new building is constructed on the unit plan, that which Harvard University has adopted for its new structures. The rooms are built to accommodate from twelve to twenty-four students, but some of the partitions can be raised so as to enlarge the space to double or quadruple. No space is wasted, any odd corner being fitted up for work by one or two students. The formal opening address will be delivered by Dr. Charles S. Sherrington, professor of surgery at University College, Liverpool, in the presence of many distinguished scientists from Canada and elsewhere. On the evening of the 30th, Dr. Osler, of Baltimore, will deliver the opening lecture of the session. It is expected that over 700 students will be enrolled.

Pith of Current Literature.

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

August 13, 1903.

1. Case of General Infection with Thrush,
By O. HEUBNER.
2. Herpes Gestationis,
By F. CALLOMON.
3. Treatment of Skin Diseases with the Röntgen Rays and
Concentrated Light (*To be concluded*),
By W. SCHALZ.
4. Life Preserving Action of Irritation,
By A. SCHÜCKING.
5. Staining of Differential Blood Plates,
By K. PREISCH, and P. HEIM.
6. Symptomatology and Treatment of Basedow's Disease,
By G. VON VOSS.

2. **Herpes of Pregnancy.**—Callomon reports a case of this rare skin lesion. It began in the sixth month of pregnancy as an itching erythematous and bulbous exanthem, which healed with pigmentation. It recurred during the puerperium. It was complicated by a diffuse pulmonary tuberculosis and erysipelas. The patient ultimately recovered.

4. **Life and Irritation.**—Schücking has found that the eggs of echinodermata are less slowly attacked by distilled water if they are previously subjected to the irritation of electrical, chemical, mechanical, or thermic stimulation, or if they have been previously fertilized. The same resistance to osmotic influences is found in the red and white blood cells of rabbits and man, and in anthrax bacilli, when these are previously subjected to external stimulation. Schücking deduces from these experiments that the sustenance of life, as influenced by normal osmotic influences, is evoked by the normal irritable state of the protoplasm.

6. **Treatment of Basedow's Disease.**—Von Voss reports two cases, in one of which there was a unilateral paralysis of the facial nerve and temporary paralysis of several ocular muscles. In the second case, peculiar disturbances of motility in the extremities were noted, which the author describes as choreic tremors. He cautions against the use of iodide treatment and regards it as well as painting the affected parts with iodine, as dangerous.

BERLINER KLINISCHE WOCHENSCHRIFT.

August 17, 1903.

1. Anæsthesia in Intestinal Obstruction,
By W. KAUSCH.
2. A Case of Henoch's Purpura,
By C. ROMMEL.
3. Thyreoiditis Posttyphosa and the Demonstration of
Typhoid Bacilli in the Pus,
By A. KRAUSE, and C. HARTOG.
4. Pressure Atrophy of the Optic Nerve in a Case of
Tumor at the Base of the Skull,
By F. MENDEL.
5. Epidural Injections by Puncture of the Sacral Canal,
By A. STRAUSS.

1. **Anæsthesia in Ileus.**—Kausch believes in general anæsthesia in cases of intestinal obstruction. Only in exceptional cases, where the production of an artificial anus is the only necessity, and occasionally in instances of strangulated hernia, will local anæsthesia suffice. To avoid the aspiration of vomitus in these cases, Kausch has attached to an ordinary stomach tube two rubber bags connected by a thin tubing. One of these is introduced with the

stomach and blown up with air, so that its connection with œsophagus is completely closed off. The gastric or gastrointestinal vomitus is carried outside of the body by means of the tube.

2. **Case of Henoch's Purpura.**—Rommel reports a case of this kind first described by Henoch. It is marked by purpuric eruption, articular inflammations, severe abdominal symptoms and vomiting, intestinal hæmorrhage, colic, and tenesmus. The case reported is that of a child, three years of age, which ran the typical course with recurrences. Bacteriological examinations were negative and treatment seemed inefficacious, except in the use of the opiates.

3. **Posttyphoid Thyreoiditis.**—Krause and Hartog report the case of a man twenty-three years of age who, after a severe typhoid, acquired a suppurative thyreoiditis in a preexisting enlarged gland. Incision of the thyreoid was followed by the discharge of rich, creamy pus, in which a pure culture of typhoid bacilli was found. The incision was followed by recovery. The thyreoiditis was unaccompanied by a rise in temperature, the infection taking place during the lysis of the typhoid fever.

5. **Epidural Injections.**—Strauss describes the epidural mode of instilling drugs by Cathelin's method. The puncture of the sacral canal is painless, a needle six cm. long being employed, the absorption of cocaine and normal salt solution is especially rapid and the author believes that, therapeutically, this method can be made of great value. In septic cases, neuralgias, the pains of tabes, especially in the bladder, in retention of urine and in incontinence, amelioration and in some instances, a cure was obtained. Strauss gives the minutiae of the procedure.

SEMAINE MEDICALE

August 26, 1903.

Neurofibrosarcomatosis, a Peculiar Variety of Primitive
Sarcomatosis of the Nervous System,

By RAYMOND.

Neurofibrosarcomatosis.—Raymond presents a girl, eighteen years of age, blind and deaf. Her father died of tuberculosis; twin sister is healthy. Three years ago, was suddenly attacked with violent headaches, bilious vomiting, fainting spells; steady failure of vision, with internal strabismus and gradual loss of hearing in both ears; tendon reflexes are exaggerated; nystagmatic movements of eyelids; character changed for the worse; cytodagnosis negative; ophthalmoscope shows œdematous optic neuritis; no syphilitic antecedents. Evidently there is a cerebral neoplasm at the base, enveloping the origins of the cranial nerves, and compressing the cerebellum; diagnosis is reinforced by two similar cases in Raymond's experience, both of which were of tuberculous parentage. The prognosis is hopeless.

LYON MEDICAL.

August 30, 1903.

1. Researches on the Ætiology of Epithelial Cancers,
By JABOULAY.
2. Ætiology of Tuberculous Rheumatism,
By X. DELORE.

1. **Ætiology of Epitheliomata.**—Jaboulay believes in a parasitic origin of epithelial cancer and in its contagiousness; anatomically it is the result of a mutual osmosis between epithelium and connective tissue, the separating colloid tissue being destroyed by the parasite. The latter thrives best in young and healthy persons. Cancer is dangerous, not by substituting itself for other tissues, not as a foreign body, but as a generator of poisons. The history of a mammary cancer is that of a slow burn, caused by the production of formic acid from oxidation of glycogen. In a cancerous subject, there is some chemical substance formed internally, which causes the cachexia; the cancer cannot excrete externally and deposits its poisonous secretions in the tissues. Jaboulay advises the early and constant exhibition of quinine and is against operation, save in the earliest stages.

2. **Tuberculous Rheumatism.**—Delore says, rheumatism is fairly common in tuberculous subjects, and when so occurring, should be considered of tuberculous origin. It occurs principally in slow cases where the subject has become, so to speak, immunized by a sort of vaccination; the extreme sensitiveness of serous membranes renders them liable to reaction to the tuberculous virus poured into the circulation by a tuberculous focus of infection elsewhere in the organism. Cultures from rheumatism in the tuberculous have given positive results in guinea pigs, while those from ordinary chronic arthritides were of negative outcome.

PRESSE MEDICALE.

August 26, 1903.

1. On the Presence of Foreign Bodies (Crystalline Substances and Microbes) in the Nerve Cell, as Related to the Theory of Nervous Amœboid Movement,
By G. MARINESCO.
2. Centrifugation as a Rapid Method of Estimating the Nutritive Value of Milk,
By FABRE.

1. **Foreign Bodies in Nerve Cells.**—Marinesco quotes authors pro and con regarding the theory of amœboid movement in the cells of the nervous system as lying at the basis of mental processes. The presence of the microbe of leprosy in the spinal cells has supported the theory. Marinesco has made a special study of the latter phenomenon and, recalling Holmgren's discovery of canaliculi in the protoplasm of nerve cells anastomosing with one another, concludes that the lepra bacilli, having penetrated the superficial lymphatic vessels of the nerve trunks, are carried deeper owing to the continuity between the superficial and deep lymphatic circulation of the nerve. The bacilli are thus directed along the nerve fibres, partly to the spinal ganglia and partly to the anterior horns. As the nerves of sensation seem to be favored by the lepra bacilli, they are driven in large numbers into the cells of these ganglia; arrived at the capsule, the canaliculi of the latter conduct them to the interior of the cell, when they produce the specific lesion, described and illustrated by the author.

2. **Centrifugation.**—Fabre states that the milk of different mothers varies vastly in the per-

centages of cream and casein, and the length of time a child is allowed to nurse should depend thereupon. It may vary from five to fifteen minutes. When digestive troubles appear, the milk should be centrifugated. Fabre advises the method of Andrew Scott as the simplest to carry out in private practice. He dwells on the necessity of careful training of the mother in feeding while still under the accoucheur's observation.

August 29, 1903.

Torsion of the Pedicle of Cysts of the Broad Ligament,

By PH. F. SIKORA.

Cysts of Broad Ligament.—Sikora says most of these are tumors of the parovarium and that torsion of the pedicle is rare; he details four cases, the last of which was under his care. He concludes that of the causes of the phenomenon of torsion, the most important is large volume, in which case the broad ligament is stretched and flattened, holding the cyst from abdomen to pelvis. Small cysts are sessile or the pedicle is too thick to admit of twisting. Torsion seems to be produced gradually and the pedicle becomes thinner, permitting still further twisting. Hæmorrhage is rare and slight. There is no absolutely pathognomonic symptom, although menstruation usually becomes irregular.

RIFORMA MEDICA.

June 24, 1903.

1. On the Pathogenesis of the Anæmia of Ankylostomiasis,
By UMBERTO GABBI.
2. On the Action of Human Gastric Juice Upon the Tubercle Bacillus. A Contribution to the Study of Primary Gastrointestinal Tuberculosis,
By LUIGI FERRANNINI.
3. The Use of Picric Acid in the Treatment of Uterine Bleennorrhagia,
By A. SERRA.
4. On Non-Dysthyreoid Infantilism. The Organic Balance in a Case of Mitral Infantilism,
By LUIGI FERRANNINI.

1. **Anæmia in Ankylostoma.**—Gabbi, and Vadala, three years ago, showed in a preliminary note that the hæmolytic power of the blood in patients with ankylostomiasis was very much greater than in normal persons, or even in sufferers from anæmia resulting from chronic intestinal diseases. The importance of this phenomenon in the interpretation of the anæmia of ankylostomiasis was foreshadowed in this first note. The present research is based upon the study of four cases of ankylostomiasis. As a result of this research, which included experiments as to the hæmolytic power of the serum of these patients, and also a study of the morphology of their blood, Gabbi concludes as follows: (1) That the anæmia of all patients was very severe. (2) That their blood showed a marked poikilocytosis, the presence of Poggi's corpuscles, numerous eosinophile cells, and, in the moderate forms, absence of nucleated red cells. (3) That the hæmolytic power of the serum of these patients was very much increased on the blood of the rabbit, and on the blood of anæmic patients suffering from various diseases. (4) The fæces of the patients always contained

some black substance, which was evidently due to the effusion of blood. (5) The toxic power of the urine was increased and the alcoholic extract thereof caused slow anæmias in rabbits. (6) The urine showed an increased destruction of albuminous substances, and frequently the presence of urobilin. (7) The spleen and the liver of these patients were often found swollen. Gabbi does not think the small losses of blood in ankylostomiasis can be the cause of the severe accompanying anæmia. This may be so in the early stages, but later other causes come into play which support the anæmic condition. The first of these is the exhaustion and the imperfect action of the blood-forming marrow of the bones. The second is the slow destruction of the red blood cells, which goes on in the vessels of the patients, in virtue of the increased hæmolytic power of their blood, induced directly through the activity of the ankylostoma, and indirectly through the destruction of red cells in the spleen, as the result of hypertrophy due to a previous malaria.

2. **Gastric Juice and Tubercle Bacilli.**—Ferrannini after an exhaustive consideration of the moot question as to whether the gastric juice is capable of neutralizing the tubercle bacillus, and if so, what effect this has on the frequency of gastrointestinal tuberculosis, arrives at the conclusion that human gastric juice does not destroy the virulence of tubercle bacilli, even on the addition of hydrochloric acid to make 2:1000 parts, on exposure of the culture for one or two hours, and normally a substance does not remain much longer in the stomach before being digested. While the gastric juice, therefore, does not protect from a tuberculous infection of the intestines, the question as to why such infections are rarely primary is quite another matter.

3. **Picric Acid in Uterine Discharges.**—Serra calls attention to the value of picric acid in the treatment of gonorrhœal endometritis. He employed Siredey's method, viz., the injection of a 12:1000 solution of picric acid into the uterine cavity by means of Braun's syringe. The solution is prepared with hot water, allowed to cool, and decanted. It may be kept sterile for an indefinite time. The cervical canal is disinfected with cotton impregnated with iodoform-ether, and the syringe is introduced into the cervix, and about two c. c. injected into the uterine cavity. The vagina is tamponed with iodoform gauze, the plug being worn till the next day. The vagina is washed daily with a hot solution of potassium permanganate. Serra also disinfected the external genitals and irrigated the vagina before the introduction of the speculum. He treated 21 cases thus, until the gonococci had disappeared. He concludes that picric acid is very efficient and non-toxic. It has marked antibacterial action against gonococci. The injections far from being caustic, were analgetic.

4. **Infantilism.**—Ferrannini says that two chief types of this condition should be recognized, that of Lorain and that of Brissaud. The latter is infantilism accompanied by myxœdema. In Lorain's infantilism, the patient is a miniature

man with retarded development, in Brissaud's type the patient is a true infant whose development has been arrested in infancy. In Lorain's infantilism a variety of special forms may be distinguished, such as tuberculous infantilism, syphilitic, malarial, toxic, and cardiac, including mitral and pulmonary. In summing up the changes in metabolism observed in a case of mitral infantilism, the author says that there was a constant and continuous saving of albumin, a deficiency in intestinal absorption, and in the utilization of calories, a lowered elimination of urea and diminished oxidation of proteids, a slight increase in the elimination of alloxuric bases, a deficiency in the elimination of uric acid, and an increase in the elimination of the ammonia nitrogen and extractives. This complex balance of metabolism indicates a lowered state of nutrition.

July 1, 1903.

1. On a New Phenomenon Observed in a Case of Adams-Stokes Disease, By AGENORE ZERI.
2. On the Action of Nucleoproteids on the Cells of the Hepatic Parenchyma, By GUIDO GUERRINI.
3. Microorganisms in the Lungs of Patients with Heart Disease, By FRANCESCO DE GRAZIA.
4. Limp Chorea, Choreic Epilepsy, and Pseudoparalytic Myasthenia, By LUIGI FERRANNINI.
5. Anastomosis of the Ureter with a Special Tube of Magnesium, By DOMENICO TADDEI.

1. **A New Symptom in Adams-Stokes Disease.**—Zeri reports a case of Adams-Stokes disease, in which a new physical sign was observed in a patient in hospital, appearing at various times during the day. It consisted in a perfect synchronism between the heart-beat and the respiration, there being an inspiration for each beat of the heart. In the interval between two heart beats, and between two respiratory motions, there was no sign of activity on the part of the heart beyond the pulsation in the neck. Tracings of the respiration and of the heart-beat showed a perfect correspondence in both movements in the curves. The respiration curve showed no special features worth mentioning. The curve of the apex beat, however, showed very plainly the small elevation indicating the contraction of the auricle, and also the two elevations corresponding to the closure of the aortic and pulmonary valves. The respiratory movements were in a fixed relation to the contractions of the ventricle, the inspiration slightly preceding the systole. These signs persisted for hours at a time, without any variation. The author ascribes the origin of this phenomenon to the dependence of the respiration centre upon the inhibitory centre of the heart, in the sense that during the inspiration there is a diminution of the activity of the pneumogastric nerve upon the heart. In the case reported the bradycardia was due to an irritable condition of the vagus centre. During the inspiration, the activity of the fibres of the vagus which inhibit the progress of the contraction of the heart muscle, especially in this case that of the auricle, is increased; therefore, the auricles pulsated with greater frequency than the ventricles. The auricular pulsation was about normal in frequency, but the respiratory centre seemed to adapt itself to a certain extent to the demands of the heart, for the respiration was increased in frequency. It is possible,

however, that the slight dyspnœa, which was almost constant, was due to the increased vensity of the blood, caused by the rarity of the ventricular systoles. The author thinks that this phenomenon is frequently present in Adams-Stokes disease, and possibly might constitute a valuable sign for distinguishing the neurotic form of this affection from the muscular.

2. **The Action of Nucleoproteids Upon the Cells of the Hepatic Parenchyma.**—Guerini, in a preliminary note, announces the result of experiments on animals with injections of solutions of nucleoproteids with a view to determining the effect of these substances upon the liver. The author concludes as follows: The nucleoproteid extracted from the liver and the brain of white mice and dogs, injected into the peritonæum of white mice in quantities of from $\frac{1}{100}$ to $\frac{1}{200}$ of a gramme, and dissolved in solution of 1 per cent. sodium carbonate, always produced minute changes in the livers of the animals injected. These changes did not follow the injection of the solution of sodium carbonate alone, or of solutions of nucleoproteids previously heated for fifteen minutes to about 60° C. The kidneys of these animals rarely showed marked lesions. Every nucleoproteid is capable of inducing irritative and degenerative changes in the parenchyma of internal organs, but there are nucleoproteids which act chiefly as degenerants, and others which have principally the effect of irritants. The irritation and the degeneration which follow these injections are always in proportion with the amount of nucleoproteids injected and always involve the entire cell.

4. **Chorea, Choreic Epilepsy, and Pseudo-Paralysis.**—Ferrannini reports two cases of chorea in which there was a marked weakness of some of the muscles which presented all the characters of pseudoparalytic myasthenia, or Erb's symptom. This consists of a more or less pronounced weakness of the muscles, so that the patient gets tired very quickly after exercising them, but he has no trophic or sensory or reflex disturbances. This weakness is such that the patients when lying down, cannot sit up; that the lightest objects seem too heavy for his hands, and that he cannot walk. In such cases electric stimulation produces weak contractions which become weaker and weaker until they remain absent. In the cases reported the muscular weakness was distinctly of a spinal type, without any involvement of the medulla or of the cranial nerves. This is not the case in Erb's disease, in which the muscular weakness descends from the medulla downward and, in fact, involves structures supplied only from, or above bulb. The author urges the necessity of observing carefully all cases of chorea in future, with a view of determining the frequency of this symptom.

5. **Anastomosis of the Ureters by Means of a Tube of Magnesium.**—Taddei describes a method of uniting the ureters by the introduction of a specially constructed tube of magnesium. It has been found that metallic magnesium dissolves in urine quite rapidly with the formation of magnesium ammonium phosphate. The tubes employed by the author were cylindrical, with thin walls and a calibre varying from one to three mm. The length of these

tubes varied, but was usually about one cm. The ends were beveled, with rounded edges, and the body of the tube was provided with four openings, two on each side, allowing a thin curved needle and a double catgut, number 0, to pass. The tubes are prepared by passing two sutures, one on each side, through the openings, and sterilized by boiling them for a few minutes in xylol. The needles are threaded at the end of the sutures, and when two ends of a ureter are to be united, the tube is introduced with its ends, which are beveled like reeds, and the sutures are passed through the respective ends and tied over the tube. These magnesium tubes were used in a dog which was killed seventy days after the first operation. The ureters were found completely united, without a trace of magnesium and without much of the connective tissue. Other experiments on animals confirmed this observation. The advantages of this method are as follows: It is simple and can be rapidly executed. It is not necessary to reduce the length of the ureter by introducing one end into the other, and the manipulations are so simple that the ureter is not injured in the process. The union is secure, and the site of this union is protected for some time from contact with urine, thus favoring healing. The examination of the united ureters in the animals operated on showed the absolute value of this method.

JOURNAL AKOUSCHERSTVA I GIENSKIKH BOLIESNEY.*

April, 1903.

1. N. N. Phenomenoff. A Biographical Sketch,
By V. VLADIMIROFF, and V. STOLYPINSKI.
2. Fibromyomata of the Uterus Complicating Pregnancy,
Labor, and the Puerperal State,
By V. STOLYPINSKI.
3. On the Boundary Lands of Obstetrics and Gynæcology,
By S. D. MIKHENOFF.
4. On the Diagnosis and Treatment of Local Puerperal
Affections, By B. AKHSCHAROUMOFF.
5. On Tarnier's Forceps, By L. A. KRIVSKY.
6. Premature Detachment of the Normally Attached Placenta,
By R. B. GRÜNING.
7. The Instrumental Dilatation of the Cervix,
By A. I. GRIEKOFF.
8. On Uterus Bicornis Duplex and Vagina Septa, \
By A. E. KARNITSKY.
9. Two Cases of Circular Rupture of the Vaginal Portion
During Labor, By P. F. MERKULIEFF.
10. Calicium Peroxide (Gorite) in the Treatment of Puerperal
Colpitis, By S. J. HORNSTEIN.
11. On the Fate of Subperitoneal Fibroids,
By V. P. VLADIMIROFF.
12. Cases of Pernicious Anæmia During Pregnancy.
By M. BARRON.

2. **Fibromyomata in Pregnancy, Labor, and Puerperium.**—Stolypinski reminds us of the frequency with which fibromyomata interfere with a woman during childbirth. This may be seen from the fact that, according to Bayle, fibro-

* The present number of the *Journal* is devoted to articles contributed in honor of the jubilee of the noted obstetrician and gynæcologist, Nicholas Nikolayevitch Phenomenoff, professor of obstetrics in the Medical School for Women, and Director of the Obstetric Institute of St. Petersburg, etc. It is preceded by a biography of Professor Phenomenoff.

myomata of the uterus occur in one fifth of all women over thirty-five years of age. According to Horvitz, however, only in 2.27 per cent. of women. Horvitz regards fibromyomata as belonging peculiarly to the intelligent classes. Stolypinski found, in 1899-1900, out of 8,365 pregnant women only two cases of fibromyoma; in 1901, among 3,330 such women, myoma in 3 cases. In 1902, among 2,549 women before or after labor, there were only 3 cases, and in 1902, among 1,178, only 2 cases. Ahlfeld found fibromyomata in only six out of 3,000 cases. It is possible, of course, that conception is rendered difficult through the presence of myomata, but once the tumor has developed and conception has taken place in spite of it, what is the influence of myomata on pregnancy? The author studied the cases of fibromyoma which occurred under his observation in women admitted to the lying-in hospital. He concludes as follows: Pregnant women and women after labor show the presence of myoma less frequently than gynecological patients. Myomata increase considerably in size during pregnancy, and may produce various effects on the pregnancy, altering the position of the uterus, changing the position of the fœtus, and possibly causing the interruption of the pregnancy. Myomata weaken the act of labor, or they block more or less completely the way of the fœtus. The best treatment in such cases is myomectomy during pregnancy and Cæsarean section during labor. If the myoma is movable and can be pushed aside, this should be done during the delivery. After labor, myomata may induce retention of placenta and hæmorrhage, as well as subinvolution. The regressive changes in the uterus after labor often result in a decrease in size of the myoma, and sometimes in a complete disappearance of the tumor.

3. Borderlands of Obstetrics and Gynecology.—Mikhnoff dwells upon the necessity of the modern gynecologist being a good physician, broadly conversant with his art. He cites the relation of appendicitis to the diseases of the female genitals, the relation of diseases of the heart to abdominal tumors; of fibroids, etc., to labor; of the nasal mucosa to the menstrual function, as recently emphasized by Fliess; of functional disorders of the vocal cords to the monthly periods (Bottermund); of nervous, psychical and hysterical phenomena to diseases of women; the occurrence of reflex pains and other symptoms in the gastrointestinal tract, simulating at times gallstone colic in certain uterine affections; of neuralgia mammæ as a reflex sign; the theory of internal secretion from the ovaries and its application to castration and to the menopause; the toxic theories of eclampsia, etc.

4. Puerperal Sepsis.—Akhscharoumoff points out that slight local sepsis is of frequent occurrence after labor, and it should be the aim of the obstetrician to prevent further spread of sepsis by prompt attendance to these milder troubles. The method in vogue at the St. Petersburg Lying-in Institute aims at energetic treatment after prompt diagnosis in such cases. The usual method of waiting until clinical signs give warning

of something abnormal, is not to be commended. The speculum is used in all patients who show fever after labor, except a slight rise for a single day, and in those that show evidence of another disease causing the fever. The patient is placed on the operating table, the genitals are inspected, scrubbed, disinfected, and a trough-like speculum is introduced. The vagina and cervix are inspected and any infected fissures or lacerations therein are noted. The lochia are always then obtained directly from the uterus on a piece of sterile gauze, applied with forceps, and its transparency, color, and odor are noted. Clean lochia often flow from the uterus when the secretion of the vaginal orifice is dirty and foul. In private practice the author's modified Sims's speculum, with a weight attached to the handle, may be used, so as to avoid the presence of many assistants. The use of these specula even on the second day after labor is perfectly harmless, but is somewhat painful, though, owing to the advantages of this method, the patients consent to it readily.

The local therapy of mild infections should be as follows: The speculum having been introduced, the vaginal surface is washed with a disinfectant solution, wiped with sterile gauze, and the lacerations painted with tincture of iodine or with a 3 per cent. solution of peroxide. The external lacerations are powdered with an antiseptic dusting powder, or with calcium peroxide (gorite). The patient is to be then isolated in the "suspicious ward" for a few days. If the vaginitis was the cause of the fever, one or two treatments are sufficient to bring down the temperature. The same treatment is applied to superficial lacerations of the cervix. In the uterus, endometritis after labor, as evidenced by foul lochia on inspection, is treated with irrigations. For this purpose the author found 40 per cent. alcohol (official "vodka") excellent, the technics being very simple, a double current tube being preferred, after the cervix has been cautiously drawn down, the same speculum remaining in place. In cases of fever after miscarriages the irrigation of the uterus is followed by the injection of diluted alcoholic iodine by means of Braun's syringe. In cases of gangrenous vaginitis and endometritis after labor, continuous vaginal and uterine irrigation with antiseptics is of great value.

5. Tarnier's Forceps.—Krivsky enters a strong plea for the more extended adoption of Tarnier's forceps in routine obstetrics. The value of Tarnier's forceps is great in some cases with transverse positions of the head, in posterior positions, and in cases in which it is difficult to make out very distinctly the exact position of the foetal parts. The limits for its employment are certain sizes of the pelvis and of the foetal head. Tarnier's forceps may be converted at any time into the simple type by using the main handles for traction. They should be used, but not abused.

6. Premature Separation of Normal Placenta.—Grüning reports five cases of this dangerous obstetric accident. In none of them could a cause be assigned for its occurrence, except a nervous shock in the first case. In two the placenta separated before the onset of labor, as there was

hæmorrhage before the labor pains set in. In two other cases the separation took place a few hours after the onset of labor, and in one case the hæmorrhage appeared at the time of the labor. In four of the five women there was nephritis, in the other case normal kidneys. All the patients were weak, cachectic women with slight muscles, and all except one were multiparæ. No microscopical changes were found in the placenta. The first sign was usually an abundant bleeding from the genitals, with an absence of placenta prævia or ruptured uterus. A rapidly developing anæmia followed, giving the sign of an internal hæmorrhage. The uterus increased in size, becoming uniformly globular and elastic, and the fœtus could not be felt any longer. The fœtus then died, and the labor went on slowly and laggingly. The treatment of the condition is the most speedy termination of the labor possible, including whatever operations may be needed for this purpose in each case.

7. Bossi's Dilator.—Griekoff reports his experience with Bossi's dilator in the induction of forced labor in cases of eclampsia, etc. He concludes his study with a very strong appreciation of the merits of this new dilator, saying that Bossi's instrument cannot be replaced under some circumstances when it is necessary to deliver quickly. In order to insure a safe application of this dilator, however, it should be used only in cases in which the cervix is dilatable and the patient a primipara. On the other hand, when the cervix is thick and has not yet been thinned down in primiparæ, and in cases with rigid cervix in multiparæ, the instrument is not so safe or so efficient. The dangers connected with its use have made its application limited in institutions, on account of the occurrence of severe hæmorrhages from lacerations, and it is scarcely destined to be widely used in private practice. It is especially indicated in eclampsia and in those cases where quick delivery is needful, and where the use of the colpeurynter is impossible, e. g., in rigid cervix with a head low down. The complexity of the instrument prevents its easy cleaning and its high price suggests a simplified form.

8. Double Uterus and Vagina.—Karnitsky reports two cases which are interesting on account of their rarity and on account of the possibility of a mistake in diagnosis in the course of a labor in such women. The first patient was a young woman, aged twenty years, who complained of very severe hæmorrhages that had occurred lately during coitus, while previously the sexual act had not been accompanied by any discomfort. On examination it was found that the blood flowed from the left upper corner of the entrance to the vagina, and that the canal was divided into two cavities by a sæptum that ran obliquely from above on the right to below on the left. Each vagina had at the bottom a separate cervix, the upper left vagina was very small and only admitted one finger; the lower right cavity, on the other hand, admitted over two fingers. In the upper part of the upper vagina there was a laceration caused by the attempt to introduce the penis, which evidently had been successfully introduced into the other vagina.

The patient became pregnant in the uterus on the upper, left side, and at seven months, had a premature labor, during which the head pressed upon the vaginal sæptum, so that the latter had to be incised between ligatures and the fœtus delivered. The remarkable feature was, that the uterus that was situated at the end of the inaccessible vagina, the upper left cavity which did not admit the introduction of a penis, was impregnated.

The second patient was a woman, aged thirty-two years, who had been married for five years and had never borne children. She complained of a painless swelling in the abdomen. The menses had been regular throughout. On examination, she was found to have exactly the same condition as the first patient—two vaginæ, one at the left upper part, the other at the lower right portion of the genital tract; two cervixes, which, however, were united at the median line for a short distance, and two uteri. The lower vagina communicated with a pregnant uterus that was the cause of the swelling. Unfortunately the further history of this case is not given. The mistakes in diagnosis possible in the presence of a pelvic tumor with continued menstruation from the opposite uterus may be imagined.

9. Spontaneous Amputation of Cervix in Labor.—Merkulieff reports two cases of this very rare complication of labor which he observed during the past six years. The first case occurred in a primipara, aged twenty-seven years, with a slow labor, lasting about thirty-six hours, at the end of which time the cervix came out of the vagina, without any special symptoms whatever, except a little hæmorrhage. Previously there had been weak pains, slight bleeding, and a swollen and œdematous condition of the cervix. The child was delivered with forceps, and the patient made a good recovery.

In the second case the cervix was passed by vagina about twenty hours after the beginning of the labor, in a bipara, aged twenty-six years. The child was delivered, with forceps, within an hour, and the patient made a good recovery. In the first case there was an absolute narrowing of the pelvic, in the second case, a relative one, as the head was very large. Hence the author thinks that a narrow pelvis is a predisposing cause to this accident. Various other causes have been assigned for it, such as an irregularity in the mechanism of dilatation, whereby the uterine contractions cause pressure on the cervix in one point of its length. But this would obtain very often, and the accident is rare. Microscopical examination of the cervixes passed by the patients showed nothing to point to the possible existence of special changes in this tissue favoring spontaneous detachment. It is rare that the accident can be prevented, but if so, this should be done by timely incisions on the cervix and the timely use of forceps.

10. Calcium Peroxide in Puerperal Colpitis.—Hornstein gives her experience with the treatment of puerperal vaginitis with calcium peroxide (gorite), a comparatively new antiseptic. Calcium peroxide is obtained by the action of hydrogen peroxide upon calcium oxide, and occurs

as a white crystalline powder, almost insoluble in water, with a slightly acid taste. On contact with organic substances and with water it decomposes into calcium hydroxide and oxygen. This liberation of oxygen by gorite is a valuable feature and the author has shown experimentally that this product kills the ordinary germs of sepsis in a short time. A very important quality of gorite is its property of liberating oxygen for weeks continuously. The author made use of this in the treatment of puerperal colpitis. At first an emulsion of the antiseptic was used in the vaginal cavity, but later it was applied dry by means of an insufflator, which proved the better way. In superficial erosions and lacerations of the vaginal portions of the uterus it is best to use the pure gorite. On the mucosa of the vagina, a mixture of gorite and talcum powder may be used (1:5). In many cases one application was sufficient, in others two or three were required.

ROUSSKY VRATCH.

July 5, 1903.

1. The Part of the Internal Organs in the Production of Immunity, By S. I. GOLDBERG-ZLATOGOROFF.
2. A Case of Larvated Septicæmia (*To be concluded*), By N. A. IVANOFF.
3. Fungoid Growths of the Lacrymal Canals, By M. I. AUERBACH.

1. **The Part of the Internal Organs in the Production of Immunity.**—Goldberg-Zlatogoroff doubts whether the blood can be regarded as the organ which must of necessity contain all the protective substances, the presence or absence of which is of importance in resisting an infection. Experimental physiology and pathology do not support the affirmative of this question, unfortunately, because medicine suffers on this account. The circulatory system may be, to a certain extent, compared to a system of steam pipes carrying steam from a boiler, as from an organ producing vital force, and the dilution which the protective substances undergo in the circulation, no doubt, explains the reason why it is so difficult sometimes to obtain antitoxic serums, when the animal is unquestionably highly immune. It is important, therefore, to study more closely the places where protective substances are generated, as well as the nature of the specific substances, and the conditions under which the greatest amount of antitoxine can be generated and thrown into the blood. Only then shall we be able to unravel the confusion of newly discovered specific substances, many of which represent most valuable remedies, and to place the study of immunity upon a solid and practical basis.

3. **Fungoid Growths of the Lacrymal Canals.**—Auerbach concludes from a study of all reported cases of fungoid growths of the lacrymal canals that they were undoubtedly of actinomycotic origin. Actinomycosis of the lacrymal canals is alone capable of producing the clinical picture described by the authors who have treated of fungoid growths. The chief points of interest concerning this disease are as follows: The great majority of patients were women. Inasmuch as the source of infection with the ray fungus is certain herbs; inasmuch as the majority of the patients, including the author's, did

not pursue occupations favorable to infection through grasses or herbs; and inasmuch as women do not deal with herbs more frequently than men, we must conclude that we are insufficiently acquainted with the conditions under which the actinomycosis exists in nature. In most cases, the fungus develops in the lower lacrymal canal, possibly because the germs penetrate into the punctum with some foreign body, which naturally approaches the lower punctum by gravity. The correctness of this is difficult to estimate. At any rate, a foreign body has been found in only one case, and there it constituted the centre of the growth. It was possibly an eyelash or a hair from the grass upon which the fungus grew, and which was carried by the wind into the eye. Although it is impossible to judge, from 40 or 50 cases thus far reported, in what country this disease most frequently occurs, it is noticeable that there is not a single original communication on this subject in French literature. In view of the fact that in France the studies of bacteriology and eye disease are so far advanced, it would seem that fungoid growths of the lacrymal canals are very rare there.

REVISTA MEDICA CUBANA

August, 1903.

1. Uræmic Hemiplegia, By J. A. VALDÉS ANCIANO.
2. Experimental Work Upon the Cytoryctes Vaccinæ, By M. G. LEBREDO.
3. Concerning Injections of Paraffin in Nasal Deformities, By G. COCCHI.
4. Two Cases of Tetanus Cured by Subcutaneous Injections of Antitoxine, By M. PELAEZ-LAREDO.
5. Meningitis and Lumbar Puncture, By A. MUÑOZ-ROBALCAVA.

1. **Uræmic Hemiplegia.**—Anciano reports a case of uræmic coma of a month's duration; at the end of which time unilateral convulsions set in, the left side of the face and left upper and lower extremity being affected. A few days after the appearance of this symptom, consciousness returned, when it was found that the entire left side of the body was paralyzed. All reflexes were abolished and there was marked hemianæsthesia. Within a short time, facial paralysis and hemianæsthesia disappeared and there was a gradual return of motility. At the time of writing—about a month after the onset of convulsions—recovery was almost complete. The author believes that the condition of uræmia was directly responsible for these phenomena and holds it not improbable that cerebral œdema caused compression and irritation of the Rolandic zone.

2. **Cytoryctes Vaccinæ.**—Lebreto gives a detailed account of his experiments in the introduction of fresh vaccine into incisions made in the cornea of rabbits, by which he was able to cause the appearance, in the epithelial cells, of the parasite of vaccinia—called by Guarnieri *Cytoryctes vaccinæ*—and study the phases of its evolution. His observations, as well as the technics employed, are fully described. But one cycle—embracing the appearance of the ring-like bodies in the epithelial cells and their final subdivisions into young parasites and rupture of the host cell—can be observed in the cornea of rabbits, as the cy-

toryctes disappear in from forty-eight to seventy-two hours; either because of a secondary infection, or of the multiplication of phagocytes within that time. The identity of the germ of variola and that of vaccinia the author holds to be undoubted as both, when inoculated into the cornea of rabbits, cause the appearance of the same parasite. The author believes that the inoculation of the rabbit's cornea with variola is of real diagnostic value; as such inoculations cause the appearance of the cytoryctes, while inoculations from other eruptive affections are negative.

3. **Injections of Paraffin.**—Cocchi reviews the work done with paraffin in nasal prosthesis and makes some practical suggestions as to the technics. In order to obtain the desired form, he advises that a working model be made by applying wax to the nose and shaping it as desired, and from this, making a model of some rapidly hardening substance, after the manner employed by dentists in plate-work. In order that the entire work shall be accomplished with one injection, he suggests that the amount of paraffin used shall exactly correspond to the amount of wax used in the model. Proper massage of the skin over the dorsum of the nose some weeks previous to the injection, he believes, will so prepare it for the introduction of the paraffin as to prevent inflammatory reaction.

4. **Tetanus Antitoxine.**—Pelaez-Laredo reports two cases of tetanus successfully treated with antitoxine, which he believes demonstrate that subcutaneous injection of antitoxine has decided advantages over other methods of treatment and is fully as effective as intravenous and intrachordian injection.

5. A Continued Article.

ARCHIVOS DE GINECOPATIA OBSTETRICIA Y PEDIATRIA.

August 10, 1903.

I. The Bromides in the Treatment of Children,

By F. CARBONEL Y. SOLÉS.

1. **Bromides for Children.**—Carbonel Y. Solés advocates the use of bromides in the treatment of children not only in those affections in which their value is generally recognized, as in convulsions, epileptic seizures, insomnia, etc., but in the many cases in which a tonic-sedative treatment for the nervous system is serviceable. The author considers the morbid syndrome, commonly called disease, as a group of reflexes; the essence of the disease being the lesion. If the latter is manifest its treatment is indicated. If not, treatment must be symptomatic; and in such cases even in the absence of symptoms which especially demand the bromides, their use, he holds, is of great value; especially in pædiatric practice. Fever, in his belief, constitutes the great reflex manifestation of anatomical lesions; the slightest deviation from the normal, in children, such as a trifling cold or gastric trouble, serving to produce a disturbance of equilibrium which manifests itself in fever. The author discountenances the use of potassium bromide and prefers ammonium bro-

mide as an anticonvulsive or sodium bromide as a simple sedative; 4 to 8 grains in a day sufficing, in his experience to overcome many of the ordinary morbid reactions of early life.

AMERICAN MEDICINE

September 1, 1903.

1. Labia Urethræ and Skene's Glands (*Illustrated*) (*To be concluded*), By HOWARD A. KELLY.
2. A Study of Uncinariasis in Puerto Rico, By BAILEY K. ASHFORD, and W. W. KING (*Concluded*).
3. Splanchnoptosis Caused by Omental Adhesions, By DANIEL H. CRAIG.
4. On the Condition of the Blood in Rheumatoid Arthritis and Osteoarthritis, By WILLIAM G. ERVING.
5. Eclampsia, By HUBERT RICHARDSON.
6. Infantile Tetany, By H. C. MASLAND.
7. Some Notes on Nassau, By SAMUEL A. FISK.

2. **Uncinariasis in Puerto Rico.**—Ashford and King cover their subject in a most thorough manner. We shall only give a few notes on the frequency of uncinariasis and on its treatment. At least 30 per cent. of all deaths, for the four months September to December, 1902, which occurred in Puerto Rico were due to anæmia. The statistics of the island are very unreliable, yet it is safe to deduce from them that uncinariasis is greatly on the increase. Fully 90 per cent. of the rural population is infected, while, of the city population, about 50 per cent. suffers from the disease. At least 75 per cent. of those that are infected with the parasite show decided symptoms. The local physicians, with few exceptions, fail to recognize the disease, and as a consequence it spreads unchecked, undermining the health of the population and greatly increasing the mortality. The authors, while not denying that the symptom anæmia is in some cases due to other causes than the parasite in question, yet assert that the vast majority of cases of the prevalent anæmia are due to uncinariasis. The parasite is a new species of nematode which has been named by Stiles *Uncinaria americana*. The anæmia which the parasite produces is due to three factors: (1) To the direct abstraction of blood by the parasite. (2) To the digestive disturbances caused by the wounds produced in the intestinal mucosa. (3) To the hæmolytic toxine produced by the parasite. This latter cause is probably the most potent one. *Treatment.*—Proper treatment will be followed by cure or improvement in the vast majority of cases. The authors tabulate the histories of 100 cases and so show what they have accomplished. Treatment naturally falls under two heads: (1) The expulsion of the parasite, and (2) the regeneration of the blood. (1) Expulsion of the parasite. Thymol is the best and safest vermifuge for the expulsion of the worm. It should be administered as follows: At night one to two ounces of magnesium sulphate should be given. If the effect is not sufficient the salt must be repeated the following night and the thymol withheld. The next morning 30 grains of thymol are given and the dose is repeated in two hours. If by noon the bowels have not moved freely, another dose of salts must be given. Thymol must be given on an empty stomach and the midday meal should be light, but the usual evening meal may be taken.

On the day of the administration of thymol, and for several days after, all alcoholic drinks, oils, and other solvents of thymol should be withheld; otherwise the absorption of the dissolved thymol will cause acute poisoning with rapidly fatal results. The thymol must be repeated every eight or ten days, until the ova cease to appear in the stools, or longer if the percentage of hæmoglobin does not rise. If the rise in the percentage of hæmoglobin is slight and cannot be accounted for the thymol should be repeated. It must be remembered, however, that in old people it may take months, at times a year, before the normal hæmoglobin percentage is regained.

(2) The regeneration of the blood.—The ordinary methods in general use are of avail.

3. **Splanchnoptosis.**—Craig calls attention to the fact that a certain number of cases of splanchnoptosis are due to the pull exerted on the abdominal viscera consequent on omental adhesions in or about the pelvis. When this is the case the ordinary operations or forms of treatment that have been devised for the relief of this condition will result in failure, unless the omental adhesions are first broken up. It is, therefore, necessary in all cases of splanchnoptosis to be sure that the omentum is free from adhesions. The author reports three cases to substantiate his views.

4. **The Blood in Rheumatoid Arthritis and Osteoarthritis.**—Erving has made a study of the blood in twenty cases of each of these affections. His results do not confirm the statement so generally made that anæmia is a characteristic of these diseases. The red blood count ranged slightly above normal, the hæmoglobin percentage was close to 100, and no abnormal elements were found in the blood, nor were there any signs of hæmic degeneration. The slight leucocytosis noted in most of the cases did not seem to bear any relation either to the severity or to the duration of the disease. The author concludes that only further observation can determine the reason for the apparent disagreement between clinical appearances and microscopical findings.

5. **Eclampsia.**—Richardson concludes that, taking the relations of the thyroid to pregnancy, the results of the experiments on animals, the similarity of the cardinal symptoms of eclampsia to those of hypothyroidism, the observations of Lange on pregnancy, and clinical evidence, it seems proved that at least a considerable proportion of cases of eclampsia are due to thyroid insufficiency.

MEDICAL NEWS.

September 12, 1903.

1. Infantile Scorbatus, By THOMAS MORGAN ROTCH.
2. Notes on Experimental Surgery: A Modification of the McGraw Elastic Ligature, By J. W. DRAPER MAURY.
3. Proposed Apparatus for the Treatment of Empyema, By FRANCIS M. C. USHER.
4. The Advisability of a More Definite Course of Instruction in Physics in the Medical Curriculum, By ALLEN J. SMITH.
5. Mental Therapeutics in Medicine, By J. M. AIKIN.
6. Uses and Limits of Non-physical Therapy, By SMITH BAKER.

7. The Significance of Albumin and Casts in Surgical Patients, By JOHN C. MUNRO.
8. Later Impressions of the "Non-heredity of Acquired Characters," By LEWIS S. BLACKWELL.
9. Therapeutics of Potassium Copalibate, By LOUIS KOLIPINSKI.

1. **Infantile Scorbatus.**—Rotch calls attention to the difficulty which occasionally arises in distinguishing between the advanced bone lesions of scorbatus and the bone lesions which arise in the course of osteomyelitis and osteosarcoma. Two cases are reported. *Case 1.*—A boy, aged ten months, raised on artificial food, was admitted to the Children's Hospital. A diagnosis of osteomyelitis was made and the baby was operated upon at three different times, for the relief of his condition. No improvement. Rotch was then consulted and suggested the possibility of scurvy and ordered orange juice. Improvement took place and x ray examinations seem to show that there is a tendency to increased bone formation. *Case 2.*—A boy, aged nine months, raised on artificial food, was admitted to the out-patient department. The bones of the thighs seemed to be involved by a growth. The appearance of the right thigh especially, suggested the possibility of an osteosarcoma. Amputation was even considered. Finally, by giving due weight to the clinical history and to the result of the x ray examination, the diagnosis of scorbatus was made. On orange juice and a careful diet the infant made great improvement.

2. **McGraw's Elastic Ligature.**—Maury has conducted a series of experiments on animals in an attempt so to modify the elastic ligature method of McGraw as to render it superior to the Murphy button method of obtaining a rapid intestinal anastomosis. The proposed method of operating is given in detail and a number of reproductions from photographs illustrate the results that have been obtained upon animals by the modified method of introducing the suture. The author reaches the following conclusions: (1) The McGraw Elastic Ligature can be so inserted as to "punch out" as large an area of the juxtaposing walls as may be desired, with at least as much certainty and with greater safety than the Murphy button. (2) The margins of such openings are smooth and not unduly cicatrized. (3) The elastic ligature may remain *in situ* after punching the openings, although this is less likely to happen if tied with iodized catgut. (4) Such retention in the mucosa of so soft a material is not apt to be harmful or permanent. (5) The time required is not sufficiently increased to render the use of this technics impractical. (6) Perhaps enough has been suggested to stimulate further research by others, so that the actual facts in these most interesting problems may shortly be brought to light.

7. **The Significance of Albumin and Casts in Surgical Cases.**—Munro bases his conclusions on the analysis of five hundred surgical cases showing albumin and casts, admitted to the Boston City Hospital within the past two years. These cases do not include any which showed obvious renal degeneration or glycosuria, nor were patients suffering with genitourinary diseases, burns, erysipelas, or similar diseases utilized. The author concludes that we

should expect evidence of renal irritation in over a third of the surgical patients found in a municipal hospital. The mere presence of a trace of albumin, with or without hyaline and granular casts, unattended by other evidence of renal damage, should not influence the prognosis in surgical disease or operation. The presence, however, of albumin and casts should place us on the watch for other and more significant signs of organic degeneration which may prove serious obstacles to operation or satisfactory convalescence. Furthermore, albumin and casts alone are apparently no contraindication to the administration of ether. We must expect albumin and casts in surgical patients under thirty-five years in over half the cases. The proportion in young and otherwise healthy children is probably as great as in adults.

MISCELLANEOUS

Chronic Splenomegaly with Anæmia and Myelæmia.—P. Emile Weil and A. Clere (*Revue mensuelle des maladies de l'enfance*, January, 1903) report two cases. One of the patients was a boy, aged fourteen months, and the other was a child, aged nine months. The disease affects nurslings, who are often rhachitic, and manifests itself by a generalized pallor of the skin and of the mucous membranes; the abdomen is distended by a splenic tumor, which is often large enough to reach to the iliac fossa; the liver may be increased in volume, but there is no ascites. The blood shows a marked increase in the number of normoblasts, particularly of those forms showing karyokinesis, and of megakaryoblasts; there is a diminution in the percentage of the multinuclear leucocytes with a parallel increase of the uninuclears and the constant presence of myelocytes; the neutrophils are manifestly predominant. From the anatomopathological viewpoint the disease is characterized by a marked hyperplasia of the hæmatopoietic organs. In the majority of cases the disease is a primary affection, and occurs without complications; in a second class of cases, the lesions of rhachitis coexist with the enlarged spleen and the blood changes; in a third class of cases, hereditary syphilis is associated with the other changes. From the study of the cases the authors reach the conclusion that there are at least two groups of splenic anæmias in children; one characterized by chronic splenomegaly with anæmia and myelæmia, which is known as pseudo-leucæmic splenic anæmia; and the other characterized by chronic splenomegaly with anæmia and lymphocythæmia.

Biliary Calculi in the Cystic Duct, in the Common Duct, and in the Anterior Wall of the Gall Bladder.—Pénaire (*Revue de chirurgie*, July 10th) states that cysticostomy means the attachment of the cystic duct to the anterior abdominal wall. In the case which the author narrates the gall bladder had been extirpated; it was then observed that there were calculi in the cystic and the common ducts, and it was found necessary to incise the cystic duct in order to remove them. This procedure was followed by the attachment of the cystic duct to the abdominal wall. The author believes that this is the first operation of its kind, though four other cases have been reported in which a somewhat similar procedure was followed. He

thinks his method is a desirable one since it prevents the possibility of the escape of bile into the peritoneal cavity. He wishes to call attention to the pathological anatomy in his case and also to the operative technics. The size of the calculi which seem to develop directly within the mucous membrane of the gall bladder varies. They are encased within small pockets in the wall of the viscus, and no trace of communication is apparent between such pockets and the cavity of the gall bladder. Their development seems to occur entirely within its mucous membrane. It would seem to follow from this that similar structures would develop within the mucous membrane of the cystic and the common ducts. With a gall bladder which is thus changed by calcareous degeneration the only feasible procedure is extirpation. It was only after this operation had been performed and the opening of the cystic duct closed that the calculi in the ducts were recognized. The cystic duct was therefore incised and 26 stones removed with forceps through the opening. The author hesitated to leave the closed duct in the abdomen lest other calculi, possibly in the liver, might give rise to future trouble. His only alternative was therefore to attach the incised duct to the skin. The shortness of the duct precluded immediate attachment, a drainage tube was therefore secured in the duct wound, the peritonæum closed over its upper surface, while below it was packed with gauze and below the gauze an additional tube was introduced. The outer ends of both tubes and of the gauze passed through the abdominal opening. The patient recovered without a fistula.

Gall Stone Disease.—Stewart (*American Journal of the Medical Sciences*, May, 1903) believes that cholelithiasis is usually latent until real infection of the gall bladder gives rise to symptoms. The commonest form is catarrhal inflammation of the gall bladder. He mentions cases in which mechanical obstruction gave rise to symptoms. In one of these, a woman aged seventy years, over 100 stones were found, 2 of which were tightly wedged in the cystic duct. In most of these cases tumor had been present. In one case a huge stone was found wedged in the common duct. This patient had had long persistent intense jaundice. Stewart then discusses the differential diagnosis from latent duodenal ulcer, umbilical hernia, and adhesions of the gall bladder without spasm of the pylorus. He mentions several cases illustrating these different conditions. He reports one case of acute pancreatitis that simulated gall stone and was entirely relieved by operation. With regard to the treatment Stewart does not believe that we have any solvents. For the active condition surgical intervention is essential. If the object is merely to diminish the inflammation present, then it is important that we should know the condition of the stomach, and when gastric atony is present daily douching with hot and cold water. Douching with strong sodium bicarbonate solutions may increase the flow of bile. A sojourn at Carlsbad is often of benefit. If the stone enters the common duct unless it is passed into the intestine in a short time, the case should be reported to the surgeon.

Letter to the Editor.

SHOCK AND THE "ABDOMINAL BRAIN."

CHICAGO, September 19, 1903.

To the Editor,

Sir: In the issue of your journal for September 12th, Dr. L. J. Dandurant published an article on *Surgical Shock, with Special Reference to the Solar Plexus*, in which he says: "What I will now attempt to describe is a condition upon which I have been unable to find any literature whatever and which I have called, in order to announce my suspicion, solar plexus shock." I wish to call the doctor's attention to my book on *The Abdominal Brain and Automatic visceral ganglia*, published in 1898 by the Abbott Alkaloidal Company and reviewed in numerous medical journals. Chapter VIII, on Shock, page 105, announces: "Shock is a profound impression on the sympathetic nerves. It is manifested by derangement of the abdominal brain, and its anatomic visceral ganglia;" also, page 107: "A blow on the stomach (abdominal brain) quickly induces shock."

BYRON ROBINSON.

Book Notices.

Die Gallensteinkrankheit, ihre Entstehung, Verhütung und Heilung. Von Dr. WALTHER NIC. CLEMM, Spezialarzt für Magen-, Darm- und Stoffwechsel - Krankheiten, Darmstadt. Berlin: Georg Klemm. 1903. Pp. 7-90.

In this pamphlet of ninety pages the author has given us a fairly complete and concise review of the subject. The book is divided into two parts, the first of which is devoted to history, anatomy, and physiology, and the second to ætiology, diagnosis, prognosis, and treatment. The author argues in favor of home treatment in most instances, alleging brilliant results from this method in some cases of long standing. The treatment employed follows the lines laid down by most writers, and there is no particular deviation in this book from the teachings of such men as Naunyn, Riedel, Kehr, and others. We regret to see that the author lays too much stress upon various proprietary preparations. As a concise review of the subject, we take pleasure in commending the book to the public.

A Textbook of Modern Materia Medica and Therapeutics. By A. A. STEVENS, A. M., M. D., Lecturer on Physical Diagnosis in the University of Pennsylvania; Physician to the Episcopal and St. Agnes Hospitals, Philadelphia. Third edition, greatly enlarged, rewritten, and reset. Philadelphia, New York, London: W. B. Saunders & Co., 1903. Pp. 663. (Price, \$3.50.)

The author has rewritten the entire work and has made numerous important additions. The previous alphabetical arrangement of drugs has given place to an arrangement according to physiological action. The chapters upon remedial measures other than drugs and the one on applied therapeutics are espe-

cially commendable for the information contained therein. In the chapter upon applied therapeutics the diseases are taken up in order and the therapeutic measures applicable in each case are given. All the newer remedies worthy of note are included, and still the book is eminently concise. For both student and practitioner it will undoubtedly prove to be of great practical value.

A Nurse's Handbook of Obstetrics. For Use in Training Schools. By JOSEPH BROWN COOKE, M. D., Fellow of the New York Obstetrical Society; Lecturer on Obstetrics to the New York City Training School for Nurses; Surgeon to the New York Maternity Hospital, etc. Philadelphia and London: J. B. Lippincott Company, 1903. Pp. xi-13 to 391. Price, \$2.00.

Dr. Cooke, in his preface to this work, makes a rather unhappy misquotation, to justify its publication. He writes: "A little knowledge is a dangerous thing," refuting, as he thinks, the charge that such a work has a tendency to overeducate the nurse. Pope actually wrote: "A little learning is a dangerous thing;" in this form the statement rather deprecates than justifies the creation of this volume. However, we are far from wishing to say that this work is not valuable. It is not, as a superficial reader might think, a mere abridgement of a work on obstetrics for physicians. On the contrary, it contains much instruction valuable to the nurse alone, teaching her to obtain the confidence of the patient by the practice of a multitude of *petits soins* totally alien to the work of the accoucheur, but counting for much as to the patient's comfort. Carefully detailed explanations regarding anæsthesia are given, that the nurse may be prepared, should the necessity of administering chloroform devolve upon her, and the entire technics of modern aseptic delivery is written in plain, unmistakable language, that, if, as occasionally happens, the entire responsibility of the case falls upon the nurse, she may acquit herself, in an uncomplicated case, with credit. We doubt, however, if the average practitioner will be pleased at the instructions given regarding the use in emergency of chloroform and morphine, although from a medicolegal viewpoint, it is the nurse who would suffer from an incautious use of these drugs. As a reminder of the nurse's studies at the training school, the book is admirable, and, as enabling her to understand the various manœuvres of the accoucheur, it is no less praiseworthy. Full instructions for the pinning of the binder, massage of the breasts, care of the vulva and anus, and other measures for the comfort of the mother are set forth in a delightfully explicit manner, as well as questions regarding the clothing of the baby and other purely feminine details, information concerning which is not unlikely to be received by the mother with better grace and sympathy from a tactful nurse than from the most learned of physicians. A glossary of words not occurring in the book, but likely to be used by the accoucheur, embodies an original and a valuable idea. The illustrations, seventy-six of which are original, are admirable, and the book generally is an excellent specimen of artistic typography.

Vade-mécum des maladies médico-chirurgicales du tube digestif. A l'usage des médecins praticiens. Par le Docteur HENRI FISCHER. Paris: A. Maloine, 1903. Pp. 426.

The author has given us a very concise and at the same time complete book upon the subject of diseases of the alimentary tract. The limits of the work necessitate extreme brevity in parts, but any one interested in the subject will find it a very useful and accurate compend.

Diseases and Injuries of the Eye, With Their Medical and Surgical Treatment. By GEORGE LAWSON, F. R. C. S., Eng., Surgeon Oculist in ordinary to Her Majesty, the Late Queen Victoria; Late Member of the Council of the Royal College of Surgeons of England; Consulting Surgeon to the Royal London Ophthalmic Hospital and to the Middlesex Hospital. Sixth Edition, with 249 Illustrations. Revised and in Great Measure Rewritten by ARNOLD LAWSON, F. R. C. S., England, Assistant Surgeon to the Royal London Ophthalmic Hospital; Ophthalmic Surgeon to the Paddington Green Children's Hospital; Consulting Ophthalmic Surgeon to the Royal Hospital for Incurables, Putney, and to the Hospital of St. John and St. Elizabeth, St. John's Wood. London: Smith, Elder, & Co., 1903. Pp. xx-538.

The first edition of this work appeared in 1869 in the form of a small volume which a student might have carried in his pocket for reference. Subsequent editions added slightly to the thickness of the book, but the changes were not very great and the general plan remained the same. Now, however, all the trammels with which a new issue of an old work ordinarily is bound have been thrown off, and it is difficult to recognize any relationship between the present edition and its predecessors. Instead of a very small book it is a large one, which an enthusiast would find difficult to carry in a pocket, even of the largest overcoat. It has been rewritten so thoroughly that its old friends can hardly find the points of resemblance, and much more attention is given now than formerly to the anatomical, pathological, and theoretical aspects of ophthalmology. In other words, this work has been modernized. Perhaps its successive editions portray the development and progress of knowledge in this department of medicine more graphically than any number of unrelated books which might be grouped together.

High Frequency Currents in the Treatment of Some Diseases. By CHISHOLM WILLIAMS, F. R. C. S., Edin.; M. R. C. S., Eng.; L. R. C. P., Lond.; Licentiate, Society of Apothecaries, Lond.; Electrotherapist, West London Hospital; Surgeon, Out-patient City Orthopædic Hospital; Honorary Secretary, British Electrotherapeutic Society, etc. Seventy-five Illustrations. New York: Rebman Company, 1903. Pp. xvi-222. (Price, \$2.75.)

It is with great pleasure that we welcome the first systematic treatise in the English language on the electric currents of high frequency, or more specially the high frequency currents of d'Arsonval. For ten years the d'Arsonval current has been used in France and has there demonstrated its great value.

Later its use extended to Germany, and during the last year or two has spread somewhat slowly in England. In America the current is almost unknown, except by name, its true nature and the method of its production having been overlooked by the authors of American textbooks on electrotherapeutics, although other high frequency currents (not d'Arsonval's) have received some slight attention, and in fact still other currents of a totally different nature and masquerading under this name.

In the work before us, nearly one half is devoted to a consideration of the apparatus, followed by short chapters on the physical and physiological properties of the current, and finally about a hundred pages are devoted to its therapeutical applications. Much of the matter appears to be taken from Denayes's *Courants de haute fréquence*, to which the author has added the results of his own experience. Although a complete apparatus for the production of the d'Arsonval high frequency current will involve an expenditure of several hundred dollars, those who now possess a good x ray coil or a static machine can make the necessary additions for a trivial sum.

We most heartily commend Mr. Williams's little treatise, not only to those who make use of electricity in the treatment of disease, but to all physicians who desire accurate information concerning the d'Arsonval methods. The work is amply illustrated, the majority of the engravings being new and of good quality, though a few old stand-bys that for years have done duty elsewhere should have been omitted or replaced by new cuts of better quality.

A Manual of Obstetrics. By A. F. A. KING, A. M., M. D., Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the Columbian University, Washington, D. C., and in the University of Vermont; Fellow of the British Gynæcological and of the American Gynæcological Societies; Consulting Physician to the Children's Hospital, Washington, D. C.; Obstetrician to the Columbian University Hospital; Member of the Washington Academy of Sciences; Fellow of the American Association for the Advancement of Science; Associate Member of the Philosophical Society of Great Britain; Member of the Medical, Philosophical, Anthropological, and Biological Societies of Washington, D. C., etc. Ninth Edition, Revised and Enlarged, with Two Hundred and Seventy-five Illustrations. New York and Philadelphia: Lea Brothers & Company, 1903. Pp. xxiii-17-622.

Dr. King's book appears regularly in a new edition and is always welcomed as an old friend. In its present enlarged shape it is better than ever before, and some of the emendations made, notably in the chapter on puerperal sepsis, are strikingly good. Some of the old illustrations have been supplanted by newer ones, and altogether the book has undoubtedly a long life still before it.

We should like to suggest to the author that, when the tenth edition appears—probably next year—he have the cuts from 166 to 171 inclusive changed. The first form show the accoucheur with his coat sleeves and cuffs on, which is very bad ob-

stetrics, and which may mislead in its ancient simplicity some not over-bright student. Fig. 171 is technically so very wrong that it should be discarded. If a child were to be extracted with the forceps applied as it is represented in the cut—if the forceps did not, indeed, slip—it would most certainly have a fracture of both parietals. This particular cut has served so long that it may well be pensioned.

Gynecology. A Textbook for Students and a Guide for Practitioners. By WILLIAM R. PRYOR, M. D. Professor of Gynecology in the New York Polyclinic Medical School; Attending Gynecologist New York Polyclinic Hospital; Consulting Gynecologist, St. Vincent's Hospital, New York City Hospital, St. Elizabeth's Hospital. One Hundred and Sixty-three Illustrations in the Text. New York and London: D. Appleton & Company, 1903.

One cannot fail to be impressed in the perusal of Dr. Pryor's book with the great advance which conservative gynecology has made within the past few years. We find a faithful picture in this book, not only of the genuine conservative gynecology, but of that radicalism in pelvic surgery as well which, properly and conscientiously followed, is true conservatism. To this end the talented author of this work has contributed not a little.

Dr. Pryor has deviated from the beaten path in omitting from his work all pathological and bacteriological data. This he has done advisedly, for he has attempted to represent those topics which are taught in a course of lectures, leaving matters purely surgical and purely pathological to be acquired elsewhere. In so far as the book thus presents the author's views and methods, we have no criticism to make; but we cannot refrain from uttering this comment, that without a study of pathological conditions the ætiology of pelvic disease cannot be properly comprehended, and that the making of clinical gynecologists is not the highest ideal of the teacher.

With this remark we are done with criticism, for one cannot turn the pages of this exquisitely illustrated work, and read the text illumined by broad experience and original ideas, without the feeling that the student who really studies it, as well as the more advanced practitioner who reads it with open eyes, will be a great gainer. Clinical pictures are set forth tersely, in excellent—almost epigrammatic—style, and descriptions of diseased conditions and of operative procedures are given with most unusual lucidity. No bewildering references to the various opinions that may and do hedge about a condition or a disease and their treatment hamper the reader and distract his attention from the continuity of his thought. Opinions are dogmatically stated and therefore bear the stamp of authority, a vital essential in a textbook for a student and a comfort for the practitioner.

Perhaps professional opinion is not yet firmly fixed as to the advisability of panhysterectomy for pelvic suppuration. Dr. Pryor has certainly done his share in promulgating the propriety of this procedure, and one of the features of his book that will undoubtedly attract the most attention and elicit the most discussion is the chapter dealing with

this phase of the subject, in which his own operation is most clearly described and in which his very positive views are emphatically stated. The other important original work of the author is also given desirable space—his method of vesical and ureteral examination, his position of the patient in operative work (a modification of the Trendelenburg position) his widely known views on the treatment of carcinoma of the uterus, and his work in the subject of puerperal sepsis.

While his own work has been allotted a proper amount of space, Dr. Pryor has not, however, neglected those fields in gynecology in which others have fruitfully labored. The whole book is representative of what a modern gynecologist thinks of his subject, and every phase of the ætiology and treatment of the diseases of women is handled in a manner which we wish would be followed by other authors; the giving of the essential, the elimination of the unnecessary.

We have referred to the illustrations. These are for the most part original and are beautifully reproduced on heavy paper. With one exception, no American textbook on gynecology is so handsomely presented. And not only are the illustrations beautiful to look at, but each one has a distinct value and represents some point of didactic importance. They give the impression of not having been inserted to fill up space.

Our impression of the book, to sum up, is that in its originality, in its broad conception, and in its equally broad treatment, it is one of the important books of American medical literature. If one considers the manner in which the author has limited himself, the book is unique. As a practical, sensible, modern textbook of gynecology, it has no superior.

BOOKS, ETC., RECEIVED.

High-Frequency Currents in the Treatment of Some Diseases. By CHISHOLM WILLIAMS, F. R. C. S., Edin., Member Royal College of Surgeons, Eng.; Licentiate Royal College of Physicians, Lond.; Licentiate Society of Apothecaries, Lond.; Electro-Therapist West London Hospital, W.; Surgeon Out-Patient City Orthopædic Hospital, E. C.; Honorary Secretary British Electro-Therapeutic Society, etc. New York: Rebman Company, 1903. Pp. xvi+222. (Price \$2.75). Seventy-five Illustrations.

Portfolio of Dermochromes. By Professor JACOBI, of Freiburg im Breisgau, English Adaptation of Text by J. J. PRINGLE, M. B., F. R. C. P., Physician to the Department for Diseases of the Skin at the Middlesex Hospital, London. New York: Rebman Company, 10 West Twenty-third Street, 1903. (Vol. I. Part I-II).

The Christian Science Delusion. By Rev. A. C. DIXON, D. D. Boston: William H. Smith, Publisher, 25 Stanhope Street, 1903. Pp. 52. (Price 10 cents).

The Crusade Against Tuberculosis. Consumption a Curable and Preventable Disease. What a Layman Should Know About It. By LAWRENCE F. FLICK, M. D. Founder of the Pennsylvania Society for the Prevention of Tuberculosis; President of the Free Hospital for Poor Consumptives of Pennsylvania; Medical Director of the Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis. Philadelphia: David McKay, Publisher, 1022 Market Street, 1903. Pp. 295. (Price \$1.00).

Lessons in Disinfection and Sterilization. An Elementary Course of Bacteriology, Together with a Scheme of Practical Experiments Illustrating the Subject-Matter. By F. W. ANDREWS, M. A., M. D., Oxon.; F. R. C. P., Lond.; D. P. H. Cantab. Lecturer on Pathology, Pathologist, and Sanitary Officer to St. Bartholomew's Hospital, London. Philadelphia: P. Blakiston's Son & Co. London: J. & A.

Churchill, 7 Great Marlborough Street 1903. Pp. 222. (Price \$1.05).

Schmerzverminderung und Narkose in der Geburtshilfe mit spezieller Berücksichtigung der kombinierten Skopolamin-Morphium-Anästhesie von Dr. RICHARD VON STEINBUCHEL. Dozent für Geburtshilfe und Gynäkologie an der Universität zu Graz. Leipzig und Wien: Franz Deuticke. 1903. Pp. ii-111.

Serum Therapy, Bacterial Therapeutics, and Vaccines. By R. T. HEWLETT, M. D., M. R. C. P., D. P. H. (Lond.) Professor of General Pathology and Bacteriology, King's College, London; Physician to the Seamen's Hospital; Greenwich Lecturer on Bacteriology, London School of Tropical Medicine; Formerly Bacteriologist to the Jenner Institute of Preventive Medicine, London. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1903. Pp. viii-262. (Price \$1.75 net).

Quiz-Compend. No. 1. A Compend of Human Anatomy. By SAMUEL O. L. POTTER, M. A., M. D., M. R. C. P., Lond. Formerly Professor of the Principles and Practice of Medicine in the Cooper Medical College, of San Francisco; Author of the "Handbook of Materia Medica, Pharmacy, and Therapeutics," "Quiz-Compend of Materia Medica," "Index of Comparative Therapeutics," and "Speech and Its Defects;" Late Major and Surgeon of Volunteers, U. S. Army. Seventh Edition, Revised and Enlarged. With 138 Wood Engravings; also Numerous Tables and 16 Plates of the Arteries and Nerves. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1903. Pp. xii-372. (Price \$0.80 net).

Quiz-Compend. No. 16. A Compend of Diseases of the Skin. By JAY F. SCHAMBERG, A. B., M. D. Professor of Diseases of the Skin, Philadelphia Polyclinic and College for Graduates in Medicine; Fellow of the College of Physicians of Philadelphia. Third Edition, Revised and Enlarged. With 106 Illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1903. Pp. xv-291. (Price \$0.80 net).

A Handbook of the Diseases of the Eye and Their Treatment. By HENRY R. SWANZY, A. M., M. B., F. R. C. S. I. Surgeon to the Royal Victoria Eye and Ear Hospital, and Ophthalmic Surgeon to the Adelaide Hospital, Dublin; Ex-President of the Ophthalmological Society of the United Kingdom. Eighth Edition, Revised. With 168 Illustrations and Zephyr Card of Holmgren's Tests. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1903. Pp. 580. (Price \$2.50 net).

A Text-Book of the Diseases of Women. By THOMAS A. ASHBY, M. D. Professor of Diseases of Women in the University of Maryland; Fellow of the American Gynecological Society; Ex-President of the Medical and Surgical Faculty of Maryland and of the Baltimore Gynecological and Obstetrical Society; Honorary Member of the Medical Society of the District of Columbia; Consulting Gynecologist to the Mt. Hope Asylum, to St. Agnes Hospital, and to the Hebrew Hospital, of Baltimore, etc. With 233 Illustrations. Baltimore: Williams & Wilkins Company. 1903. Pp. 661.

Diseases of the Ear. A Text-Book for Practitioners and Students of Medicine. By EDWARD BRADFORD DENCH, Ph. B., M. D. Professor of Diseases of the Ear in the University and Bellevue Hospital Medical College; Aural Surgeon, New York Eye and Ear Infirmary; Consulting Otologist to St. Luke's Hospital; Consulting Otologist to the New York Orthopædic Dispensary and Hospital; Fellow of the American Otological Society; of the New York Academy of Medicine; of the New York Otological Society; of the New York County Medical Society, etc. With Fifteen Plates and One Hundred and Fifty-eight Illustrations in the Text. Third Edition, Revised and Enlarged. New York and London: D. Appleton & Company. 1903. Pp. xxv-718.

University of Pennsylvania. Contributions from the William Pepper Laboratory of Clinical Medicine. (Reprints) No. 3. Philadelphia: 1902.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pædiatrics, Obstetrics, Gynecology, Orthopædics, Pathology, Dermatology, Phthalology, Otolaryngology, Rhinology, Laryngology, Hygiene and Other Topics of Interest to Students and Practitioners. By Leading Members of the Medical Profession Throughout the World. Edited by A. O. J. KELLY, A. M., M. D.,

Philadelphia, U. S. A. With the Collaboration of WM. OSLER, M. D., Baltimore; JOHN H. MUSSER, M. D., Philadelphia; JAS. STEWART, M. D., Montreal; JOHN B. MURPHY, M. D., Chicago; THOMAS M. ROTCH, M. D., Boston; JOHN G. CLARK, M. D., Philadelphia; JAMES J. WALSH, M. D., New York; J. W. BALLANTYNE, M. D., Edinburgh; JOHN HAROLD, M. D., London; EDMUND LANDOLT, M. D., Paris; RICHARD KRETZ, M. D., Vienna. With Regular Correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels, and Carlsbad. Volume II, Thirteenth Series, 1903. Philadelphia: J. B. Lippincott Company, 1903. Pp. viii-311.

A Narrative of Medicine in America. By JAS. GREGORY MUMFORD, M. D., Assistant Visiting Surgeon to the Massachusetts General Hospital and Instructor in Surgery in the Harvard Medical School. Philadelphia and London: J. B. Lippincott Company. 1903. Pp. 508 (Price \$3.00 net).

Nurses' Guide to Surgical Bandaging and Dressings. By WM. JOHNSON SMITH, F. R. C. S., Principal Medical Officer, Seamen's Hospital, Greenwich. Philadelphia: J. B. Lippincott Company. London: The Scientific Press, Limited. Pp. viii-167. (Price \$0.75 net.)

Transactions of the West Virginia State Medical Association. Charleston, May 26, 27, and 28, 1903. Instituted April 10, 1867. Wheeling: West Va. Printing Co., Printers. 1903. Pp. 144.

Cancer and Precancerous Changes. Their Origin and Treatment. By G. H. FINK, M. R. C. S., L. S. A. Lond., Major Indian Medical Service (Retired). London: H. K. Lewis, 136 Gower Street, W. C. 1903 (All Rights Reserved.) Pp. 105.

Annual Report, Essex County Hospitals for the Insane. Newark, N. J. For the Year Ending April 30, 1903. Press of Groebe-McGovern Co., Newark, N. J. Pp. 81.

Scheme for the Differential Testing of Nerves and Muscles for Use in Diagnosis. By J. MONTGOMERY MOSHER, A. M., M. D., Clinical Professor of Insanity, Neurology, and Electro-Therapeutics, Albany Medical College; Attending Specialist in Mental Diseases and Physician to the Out-Patient Department for Nervous and Mental Diseases, Albany Hospital. Illustrated. Albany, N. Y.: Bradow Printing Company, Fort Orange Press. 1903. Pp. 55.

Die Theorie des Augenspiegels und die Photographie des Augenhintergrundes. Von Dr. WALTHER THORNER, Assistent der Universitäts-Augenklinik der Königl. Charité zu Berlin. Mit 64 Figuren im Text und 3 Tafeln. Berlin. 1903. Verlag von August Hirschwald. N. W. Unter den Linden 68. Pp. iv-134.

Yearbook of the United States Department of Agriculture. 1902. Washington: Government Printing Office. 1903. Pp. 912.

Directory of Homœopathic Physicians in New York and Vicinity. 1903. Owned and edited by PHILIP COOK THOMAS, M. D., 243 West Ninety-ninth Street, New York. Price \$1.00.

Official News.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the United States Army for the week ending September 19, 1903:

BROOKS, WILLIAM H., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort St. Michael, Alaska, and ordered to Vancouver Barracks, Wash., for temporary duty.

NOBLE, ROBERT E., First Lieutenant and Assistant Surgeon. Relieved from duty in the Division of the Philippines and assigned to duty at Fort Sheridan, Ill.

PERSONS, ELBERT E., First Lieutenant and Assistant Surgeon. Granted leave of absence for thirty days.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending September 10, 1903:

BERTOLETTE, D. N., Medical Inspector. Detached from the Naval Medical Examining Board and ordered to the Naval Dispensary, Washington, D. C.

COCKE, P. L., Acting Assistant Surgeon. Resignation accepted to take effect September 21, 1903.

DERR, E. Z., Medical Inspector. Ordered to duty at the Navy Yard, Boston, Mass.

EDGAR, J. M., Surgeon. Ordered to the *Rainbow*.

FITZSIMONS, PAUL, Medical Director. Detached from the Naval Hospital, Newport, R. I., and ordered home to wait orders.

GATES, M. F., Surgeon. Detached from the *Atlanta* and granted two weeks' leave of absence; thence to the Naval Hospital, Philadelphia, for duty.

LOWNDES, C. H. T., Surgeon. Ordered to the Naval Hospital, Boston, Mass., for duty.

LUNG, G. A., Surgeon. Ordered to the *Columbia*.

NEILSON, J. L., Assistant Surgeon. Detached from the *Iris* and ordered to the Naval Station, Cavite, P. I.

PECK, A. E., Assistant Surgeon. Detached from the Naval Station, Cavite, P. I., and ordered to the *Iris*.

RANDALL, J. A., Assistant Surgeon. Commissioned assistant-surgeon, with rank of lieutenant, from June 26, 1903.

SMITH, G. T., Surgeon. Ordered to the Naval Hospital, Norfolk, Va., for duty.

TRAINOR, J. P., Assistant Surgeon. Detached from the *Solace* and ordered to the Naval Station, Pollock, P. I.

WELLS, H., Medical Inspector. Detached from the Navy Yard, Boston, Mass., and ordered to the Naval Station, Newport, R. I., for duty.

WHEELER, W. M., Surgeon. Detached from the *Alabama* and ordered to the Naval Hospital, Newport, R. I.

WISE, A. H., Acting Assistant Surgeon. Ordered to the Naval Hospital, Philadelphia, Pa.

The following assistant surgeons were ordered to report on September 30, 1903, at the Naval Medical School, Washington, D. C., for a special course of instruction:

ABEKEN, F. G., from the New York Hospital.

BROWN, H. L., from the Philadelphia Hospital.

DEAN, F. W. S., from the New York Hospital.

DE BRULER, J. P., from the Naval Hospital, Norfolk, Va.

DESSEZ, P. T., from the Naval Hospital, Washington, D. C.

DORSEY, B. H., from the Naval Hospital, Newport, R. I.

DYKES, J. R., from the U. S. R. S. *Franklin*.

ELY, C. F., from the New York Hospital.

GIEGER, A. J., from the Naval Examining Board, Washington, D. C.

GRIEVE, C. C., from the Navy Yard, Boston.

HOEN, W. S., from the Naval Hospital, Norfolk, Va.

MANCHESTER, J. D., from the Naval Hospital, Chelsea, Mass.

McLAIN, A. D., from the U. S. R. S. *Wabash*.

PEASE, T. N., from the Naval Hospital, Newport, R. I.

RANDALL, J. A., from the Naval Hospital, Norfolk, Va.

RENNIE, W. H., from the Philadelphia Hospital.

RIGGS, R. E., from the Navy Yard, Washington, D. C.

ROSSITER, P. S., from the Naval Hospital, Newport, R. I.

RYDER, C. E., from the Naval Hospital, Chelsea, Mass.

SCOTT, S. L., from the Naval Hospital, Chelsea, Mass.

SMITH, W. B., from the Naval Hospital, Pensacola, Fla.

SUTTON, R. L., from special duty at Baltimore, Md.

VERNER, W. W., from the Philadelphia Hospital.

WOODWARD, J. S., from the Naval Hospital, Washington, D. C.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the surgeon-general, Public Health and Marine Hospital Service, during the week ending September 19, 1903:

Smallpox—United States.		Cases.		Deaths.	
Place					
California—Los Angeles	Aug. 29-Sept. 5	5	3		
California—San Francisco	Aug. 30-Sept. 6	6	3		
Illinois—Belleville	Aug. 23-Sept. 12	12	13		
Illinois—Chicago	Sept. 5-12	12	4		
Indiana—South Bend	Sept. 5-12	1	1		
Louisiana—New Orleans	Sept. 5-12	1	1		
			5 days in city		
Massachusetts—Fall River	Sept. 5-12	1	3		
Michigan—Marquette	Aug. 29-Sept. 5	1	1		
Michigan—Port Huron	Aug. 31-Sept. 16	2	2		
Minnesota—Stearns County	Aug. 31-Sept. 7	3	3		
Missouri—St. Louis	Sept. 5-12	1	2		
New York—Niagara Falls	Sept. 5-12	1	1		
Pennsylvania—McKeesport	Aug. 31-Sept. 5	1	1		
Utah—Ogden	Aug. 1-31	11	11		
Utah—Salt Lake City	Aug. 9-Sept. 5	2	2		

Smallpox—Insular.		July 13-Aug. 1		2	
Philippines—Manila					
Smallpox—Foreign.					
Belgium—Brussels	Aug. 22-29				1
Colombia—Bocas del Toro	Aug. 25-Sept. 1		2		
France—Paris	Aug. 15-22				1
Great Britain—Leeds	Aug. 29-Sept. 5				6
Great Britain—Liverpool	Aug. 22-29			7	1
Great Britain—Manchester	Aug. 22-29			1	
India—Calcutta	Aug. 8-15				6
Italy—Rome	Aug. 23-30				4
Mexico—City of Mexico	Aug. 23-30			6	
Mexico—Vera Cruz	Aug. 29-Sept. 5			2	1
Russia—Moscow	Aug. 16-22			1	
Russia—Riga	Aug. 1-30				13
Russia—St. Petersburg	Aug. 16-29			18	
Russia—Warsaw	Aug. 8-22				5
Spain—Barcelona	Aug. 1-15				7
Switzerland—Geneva	Aug. 21-28			1	
Turkey—Constantinople	Aug. 23-30				1
Turkey—Smyrna	Aug. 8-30				109
Yellow Fever.					
Colombia—Panama	Aug. 31-Sept. 7		2		1
Costa Rica—Limon	Aug. 27-Sept. 3				2
Mexico—Monterey	Sept. 13				Present.
Mexico—Nuevo Laredo	Sept. 15				1
Mexico—Tampico	Aug. 22-Sept. 5				3
Mexico—Vera Cruz	Aug. 29-Sept. 5		50		19
Plague—United States.					
California—San Francisco	Aug. 9				
California—San Francisco	Aug. 21				1
Plague—Insular.					
Hawaii—Hilo	Sept. 14				1
Hawaii—Honolulu	Sept. 1				1
Philippines—Manila	July 18-Aug. 1		6		6
Plague—Foreign.					
Africa—Cape Colony	July 19-25		1		
China—Hongkong	July 25-Aug. 1		10		6
China—Inkow	Sept. 7				Present.
Egypt—Alexandria	Aug. 8-14			8	6
Egypt—Damiette	Aug. 8-14			2	2
France—Marseilles	Sept. 13				Present.
Japan—Yokohama	July 25-Aug. 15				1
Mauritius	June 5-July 2		5		5
New Caledonia	Aug. 13			26	18
Straits Settlements—Singapore	July 18-Aug. 1				3
Cholera—Insular.					
Philippines—Manila	July 18-Aug. 1		15		14
Philippines—Provinces	July 18-Aug. 1		2,141		1,488
Cholera—Foreign.					
India—Calcutta	Aug. 8-15				10
India—Madras	Aug. 8-14				2
Straits Settlements—Singapore	July 18-25				39
Turkey—Baalbeck	Aug. 22				Present.
Turkey—Damascus	Aug. 22				Present.
Turkey—Hama	Aug. 22				Present.
Turkey—Tripoli	Aug. 22				Present.

Births, Marriages and Deaths.

Married.

BANDLER—HAAS.—In New York, N. Y., on Thursday, September 17th, Dr. Leon Bandler and Miss Miriam Haas.

FLEXNER—THOMAS.—In Philadelphia, Pa., on Thursday, September 17th, Dr. Simon Flexner, of New York, and Miss Helen Whitall Thomas.

FORSYTHE—ASQUITH.—In Washington, D. C., on Thursday, September 17th, Dr. Andrew Dunbar Forsythe and Miss Mary Drusilla Asquith.

RICHARDSON—POLE.—In Hot Springs, Virginia, on Tuesday, September 15th, Dr. Thomas Shephard Richardson and Miss Edith Pauline Pole, daughter of Dr. Henry S. Pole.

WILLIAMSON—PERRY.—In East Orange, N. J., on Tuesday, September 15th, Dr. Edward Lincoln Williamson and Miss Maud Shirley Perry.

Died.

FOLSOM.—In Cambridge, Massachusetts, on Saturday September 12th, Dr. Norton Folsom, in the sixty-second year of his age.

GUERNSEY.—In Fishkill Landing, N. Y., on Saturday September 19th, Dr. Egbert Guernsey, in the eighty-first year of his age.

McDONALD.—In Detroit, Michigan, on Monday, September 14th, Dr. Theodore McDonald, in the forty-third year of his age.

OLIVER.—In Paris, France, on Sunday, September 13th, Dr. Joseph P. Oliver, of Boston, Mass., in the fifty-eight year of his age.

STOUT.—In Clarendon, Texas, on Friday, September 18th, Dr. S. H. S. Stout, in the eighty-third year of his age.

WILLIAMSON.—In Winifrede, West Virginia, on Tuesday, September 15th, Dr. Charles Williamson.

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WHOLE No. 1296.

Original Communications.

MODERN TREATMENT, OF FRACTURES, WITH SPECIAL REFERENCE TO LOWER END OF HUMERUS AND BONES OF THE LEG.*

By H. S. McCONNELL, M. D.

NEW BRIGHTON, PA.

In these days of asepsis, the possibilities are so great, the achievements so brilliant, beyond the fondest dream of the enthusiast, that both teacher and student are prone to look upon minor, or rather bloodless surgery, as uninteresting and commonplace, the result being that this department of surgery does not receive the attention its importance merits. This is unfortunate, as it includes a class of injuries that the general practitioner comes in contact with almost daily and of necessity must treat, and the ability and skill he displays in their management makes or mars his reputation. From these facts, it seems expedient to discuss the best up-to-date methods and measures of repairing these lesions, so that the parts may properly functionate in the shortest possible time and with the minimum inconvenience, suffering, and deformity. However trite my subject may seem, however prolix and hackneyed these remarks may be, none of you dare say we have attained the ideal in the treatment of these accidents, or that there is a decided uniformity in the methods of adjusting and retaining the fragments in the various fractures we are called upon to treat.

My preceptor often said, and truly I think, that "a surgeon who could not make his own splint for a given fracture is unfit to treat the same." If this aphorism were emphasized more frequently, and a universal protest and condemnation made of all patent and ready made splints, there would be fewer suits for malpractice, less suffering, and a greater proportion of useful limbs. Called in consultation in a case of fractured leg, and finding the member in an ill-fitting patent splint, the

consultant protested against the use of the same. The surgeon in charge replied that he had paid \$75.00 for the splint, and was going to use it, and so he did for a short time. The plaster of Paris bandage put on in the circular manner in the treatment of fractures, should, except in rare instances, be relegated to the past as antiquated and dangerous.

In most fractures there may be, and almost always are, several ways of procuring ideal results, but each individual must have definite ideas and methods of treating the more common fractures, improving his technique from time to time as he grows ripe in experience and more profound in the principles that govern the treatment of this class of injuries. That fractures are so imperfectly treated is due in a great degree to the faulty teaching of anatomy and surgery in our medical schools. The professor of anatomy should eliminate the mere memorizing of ridges, depressions, grooves of bone, and what passes through foramina, and all such impractical stuff. He should carefully consider the relative importance of what he teaches, and it should be presented in such a form that men will associate structure with function. The surgeon should certainly teach the grand principle that a broken bone should have any dressing applied that will keep the parts in their natural relation; that which is most readily and comfortably adapted in any given case, consistent with the principles taught, being the one chosen. Principles should be taught—not the individualism of the professor who lectures; and A's or B's particular splint should not be urged without demonstrating that it possesses merit that would commend it. The cardinal principles involved in the treatment of fractures are: Diagnosis, coaptation, and immobilization, and these principles properly applied accomplish proper alignment and comfort.

Practically, we have two kinds of fractures, simple and compound. With few exceptions, the compound can and should be converted into a simple by anæsthetizing the patient, thoroughly cleansing the parts with a hot bichloride solution, picking out all unattached and useless pieces

* Read at the meeting of the Medical Society of the State of Pennsylvania, at York, Pa., September 22, 23 and 24, 1903.

of bone, arranging as nearly normally as possible those that are to remain, cutting away all dead tissue, uniting the severed muscles and tendons, closing the wound with catgut, then dressing as a simple fracture. This will occasionally be disappointing, yet in the greater proportion of cases, the procedure will be successful. When there is any question of diagnosis, the same should be determined with the subject under anæsthesia, and frequently when the diagnosis is evident the anæsthetic is essential for proper coaptation.

Having diagnosticated and adjusted the parts, what is the best means of immobilizing the same? There are four classes of material used for this purpose: first, light wood; second, plaster of Paris; third, binder's board or other adjustable materials too numerous to mention; and fourth, absorbent cotton. In the application of any of the materials just mentioned, it must be borne in mind that if there has been proper reduction there is no necessity for tight bandaging; on the contrary, it is quite harmful. The splints should be snugly secured, and this to control muscular action far more than to produce direct pressure on the ends of the fragments. Proper adjustment having been made, muscular contraction alone is responsible for any displacement. This is very important and cannot be emphasized too much. I will not impose on your patience by detailing the different methods of applying the various splints, but I shall make a few remarks on the use of absorbent cotton and the making and adjusting of plaster of Paris strips. Nothing has given me such perfect results, and been so comforting to the patient, as absorbent cotton in retaining fractures in children, especially those of the lower end of the humerus involving the joint; in fact, all fractures or displacements immediately above or below this joint. I take a pound of absorbent cotton, measure the desired length and cut full width, and fold from side to side. I take from one to three of these to get the desired strength and thickness, place one upon the other, then cover with gauze pinned tightly and evenly. Two splints of this kind completed, I place the limb in desired position, and adapt them as I would an ordinary splint. Unless indicated I would not remove them for ten days or two weeks; when once removed, new cotton must be used. You will be skeptical about this, I have no doubt; try it, however, and you will be convinced. I did so by accident, being called to attend a child with fracture of the inner condyle of the humerus; there being no hand on this arm, and nothing but absorbent cotton being easily accessible, I applied it as indicated above. The result was so satisfactory that I have continued

to use it ever since, in fifteen cases in all, and am more than pleased with it. You will be surprised to learn what a firm dressing it makes.

A word as to the proper method of putting up fractures of the lower end of the humerus; that position which will best maintain the carrying point and usefulness of the joint is with the forearm almost extended. Good authorities place the forearm in extreme flexion, but I feel confident that those who advocate this have never properly tried the extended position. In flexion the alignment of the three points, the external and internal condyles and the tip of the olecranon, for diagnosis is not available. You cannot readily examine joint or injury without considerable discomfort to the patient and danger of disturbing the fragments, and in re-dressing all these are exaggerated. In extension, examination can be made from time to time, and re-dressing accomplished with the minimum of distress to the patient. Since writing the above, an accident case was admitted to our hospital, necessitating amputation at the right shoulder, and with compound fracture of the lower end of the other humerus, involving the joint. Operation was performed by Dr. T. P. Simpson, and Dr. J. S. Louthan, and the fracture turned over to me; the wound was rendered surgically clean, dead structures were removed, ragged edges trimmed and closed with chromicized catgut, the forearm extended, layers of absorbent cotton applied over the anterior and posterior surface, and over these two light wood splints. There was no discomfort whatever; the arm was dressed on the ninth day; the wound being perfectly dry was not disturbed. Taking a package of absorbent cotton and cutting off four pieces that would extend from shoulder to fingers, two were rolled from side to side on a piece of gauze, making two firm cotton splints that were placed anteriorly and posteriorly. This was all that was used until the patient's discharge in five weeks, when he could bring his hand to his mouth. At present writing, there is an adult in the hospital with identically the same injury, produced by being struck by a moving train. It is now in the fourth week, and is doing equally well. The entire absence of pain and discomfort of any kind, except from the awkward position of the arm, characterized all these cases.

In the treatment of fractures of the leg, notwithstanding it is recommended in all the text-books of surgery and sanctioned by almost all the special works on fractures, the old "fracture-box" should be prohibited as a relic of barbarism. Not painful or discomforting to the patient, but far more dangerous, is the circular plaster of Paris bandage. In fractures of both bones of the

leg with considerable injury to the soft parts and displacement, it is advisable after reduction to put on a temporary dressing, consisting of a posterior, well padded, wood splint, extending from the middle of the thigh to the malleoli, and side splints of the same material from above the knee to two inches beyond the sole, the foot being placed at a right angle. The circulation established, the permanent dressing is applied. Take a piece of Canton flannel or flannelette of sufficient length to extend from middle of thigh to the malleoli, and of such a width that when folded it will encircle the limb posteriorly one half its circumference. Two pieces of Canton flannel, for sides, to reach from the upper border of the patella, two inches below the sole of foot, and when doubled to cover the internal and external surfaces respectively, each overlapping the posterior splint, and separated anteriorly by a space that will permit the spine of the tibia to be inspected without disturbing the dressing. Double the flannel strip for the posterior splint, wool side in; with some three-inch moist plaster of Paris bandages, by a to-and-fro folding lengthwise of cloth, it is entirely covered with from six to eight ply of the bandage, and over this the plaster cream is spread. The free part of the flannel is now turned over, completely covering the plaster strip. One assistant grasps the ankle with one hand, and the adhesive plaster loop with the other, and makes forcible extension. Another supports the limb at seat of fracture and knee. The splint is now adjusted by the surgeon, making sure that it does not extend below the malleoli, retaining it in position with a three inch gauze bandage firmly and smoothly applied, avoiding reverse turns, and molding the splint to the limb as he proceeds. The member is now placed upon the posterior wood splint of temporary dressing, the assistant keeping up firm extension. The internal splint is prepared and applied in the same manner, extending two inches beyond the sole; then the external splint. Each splint is retained with a separate bandage. The foot is now bandaged and the free ends of side splints turned across the sole, thereby retaining the foot at a right angle. The temporary wood splints must be applied as before, care being taken to see that they are padded to conform to the contour of limb. They can be removed in from six to twelve hours.

The advantages of this splint are as follows: a light, firm, close-fitting dressing; the absence of cotton wadding permits the splint to mold itself into all the irregularities of the leg, and if the requisite extension is exerted during its application, it will maintain the extension; the wool side

of Canton flannel being next the skin and the overlapping of the splints, and the use of one layer of a wide gauze bandage, make it next to an impossibility injuriously to constrict the member; the spine of the tibia being exposed, any deviation in alignment is readily detected; lateral inspection is facilitated by cutting the bandage between the side splints, lowering one or both, and again tightening them with straps; at any time grasping the two side splints between the two hands, any looseness will be discovered; they immobilize the knee, ankle joint, and fractured bones, and maintain the foot at a right angle; if proper care and skill has been used in the application, it will be unnecessary to remove the posterior splint until union has occurred; and last, but not least, the patient can lie upon his side, sit up, or, in fact, place the limb in any position he desires.

Here I wish to speak of passive motion in the treatment of a fracture in or near a joint. To begin, passive motion in such injuries under two weeks is harmful, unsurgical, and unscientific, and only the slightest passive motion, if any, should be made until after the fourth week. No joint ever became ankylosed from enforced rest due to a fracture. A joint injured by fracture is in danger of ankylosis from two causes, imperfect reduction, or inflammation due to traumatism. Now, when we have a contused joint, don't we try to prevent inflammation by rest and immobilization? Why some surgeons will keep a joint, in which they fear destructive inflammation, perfectly immovable for from two to three weeks, and yet when they have a similar condition from fracture will commence passive motion within a week, is beyond my comprehension. Too early passive motion has caused limitation of motion, and ankylosis in more joints than fractures have done, and has produced untold suffering to patients, anxiety to the surgeon, and ridicule to our art.

I might say something about the ambulatory treatment of fractures, and the necessity in this class of injuries of the lower extremities of getting the patient up and about as soon as practicable, and the application of that plan of treatment which best meets these indications, but to men of your reputation and experience it would be unnecessary. Nothing new or original is claimed for these rambling remarks; they are old ideas and practices re-dressed and improved, garnered from a large and varied experience in active practice extending over a quarter of a century, and I hope they may be interesting, if not suggestive.

In conclusion, our aim in fractures should be:

first, restoration of function; second, maintenance of the symmetry of the member; and these should be accomplished by procedures that are as comfortable to the patient and as little annoying to the surgeon as is consistent with the object desired.

THE SOURCES AND METHODS OF INFECTION IN PULMONARY TUBERCULOSIS.

By J. O. COBB, M. D.,

SURGEON U. S. PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE.

An infectious or contagious disease cannot be introduced into the body except in one of three ways, viz., through the respiratory tract, by inhalation; through the alimentary tract, by the ingesta; through the skin, by inoculation. Pulmonary tuberculosis is either an infectious or a contagious disease. If contagious, then the chain is kept up from one person to another, from one animal to another, without there being for the bacillus an extraorganismal existence, a life cycle, outside of the animal body. That the tubercle bacillus does not maintain a saprophytic existence is reasonably certain; and unless it is a diverted bacterium, we cannot designate the affection of tuberculosis otherwise than as a contagious disease. To call tuberculosis a "communicable disease" tends to confuse the problem. Of course it is communicable. So are smallpox and syphilis and diphtheria. The word has been introduced by phthisiophilantropists to allay the public alarm caused by the existing wide spread phthisiophobia. While the object sought is praiseworthy and well enough for the public, nevertheless for scientific discussion, we must discard the use of a word that has been introduced merely to lessen public fear. Tuberculosis is a contagious disease.

The belief that milk was the medium of infection had almost universal acceptance until the memorable meeting of the Tuberculosis Congress in London, when Koch cast all into confusion by his positive assertion that human tuberculosis was not communicable to bovines and that probably the bovine species would not infect man. The dogma was readily accepted by many, for it seemed to settle for all time that the method of infection was respiratory, and it served to explain also the puzzling question of how the cow got her infection, for she was not a milk feeder. If man gets his infection from milk whence comes the infection of the cow? That was a reasonable question then; it must be answered satisfactorily now before we shall be able to work out the greatest problem in human affections.

In the study of the methods of infection we must

disregard at the start all of the accidental and minor avenues of entrance, such as by kissing, infection through the tonsils, etc., and centre our minds on the *common* channels by which bacilli gain entrance to our bodies, and especially to the lungs.

To understand the pathology of a tubercle itself we must keep clearly in our minds that the bacillus probably does not grow on a mucous membrane with mucus as a medium. Therefore, if bacilli are found in air vesicles, they are there by accident, for we are certain they do not grow naturally on the air vesical mucous membrane but in the interalveolar tissue—Aufrecht says in the walls of the terminal arteries. It is also probable that the tubercle bacillus can and does penetrate mucous membranes, whether alimentary or respiratory, without trauma and without the slightest signs of its passage. After penetrating a mucous membrane the bacillus acts as a foreign body unless permanently arrested, when it is either destroyed or undergoes development producing the classic tubercle.

Keeping these points well to the front I shall attempt in detail to narrow down and to show that the infection may be from one of two sources, and that the common anatomical route of entrance can be through one of two avenues. The hypothetical sources whence the infection may originate are two, viz., man to man and animal to animal, the medium being tuberculous sputum, either by ingesta or by inhalation; and from bovines to man by ingesta, the medium being tuberculous milk. The two common avenues of entrance may be by the alimentary tract, by ingesta, or the respiratory tract, by inhalation. It is fair to presume that, *commonly*, the infection is from one of these sources and by one of these routes. The effort will be made to outline the claims for each of these positions, for it must be clearly understood that we shall not be able to institute scientific and rational methods of prevention unless we know from what source or sources the infection comes, and how it gains entrance to the body.

CAN FOREIGN MATTER BE INHALED DIRECTLY INTO THE LUNGS?

One can feel fairly safe in answering in the affirmative. All are familiar with the macroscopic appearance of the lungs of deceased firemen, miners, and workers in other dusty occupations. Like many others, I once believed that it was impossible for foreign matter of any kind to be inhaled into the air sacs of the lungs. It does not seem reasonable to believe that dust can reach the air sac, for we should naturally think that the air excursions would drive foreign matter against a moist mucous membrane, where it would be picked up by the cilia and wafted along out through the bronchi and trachea.

That is precisely what does happen to nearly all the particles of foreign matter, but a portion, an infinitesimal part, does gain the air sacs, penetrate their walls, and become deposited in the nearby lymphatics and bronchial glands. The literature on anthracosis has been fairly worked up, and it would seem that the question of inhalation was already settled in the affirmative. This is not the case, however, for many great writers deny that foreign matter ever is inhaled and explain its presence in the lungs by the fact that it is picked up by the lymphocytes and carried to the bronchial glands and other glands of the lungs; or that these particles are picked up by the lymphatics of the trachea, pharynx, etc., emptied into the great veins, and screened out of the pulmonary arteries in the lungs.

Let us analyze these two statements and see if they are reasonably true.

If this foreign matter is picked up by the wandering cells, where do they pick it up and how do they manage to deposit it so uniformly in all such lungs? And then why is the matter deposited in the lungs by preference to other organs? Even wandering cells sooner or later get into the lymph stream, and if the matter were picked up by them in the bronchi, even in the smallest bronchia, such matter would reach the tracheal chain of lymphatics, and if continued, would be emptied into the great veins. Attention is directed to the anatomical fact that none of the bronchial glands receive any portion of the lymph radicles of the bronchial mucous membrane, these being collected by the tracheal glands. The basement membrane of the bronchia is not perforated by these radicles and the bronchial glands only receive the radicles from the interalveolar tissue. Therefore we can safely say that foreign matter, to reach the bronchial glands, must either penetrate the air sac to the lymph radicles lying below, or be screened out of the pulmonary circulation into the interalveolar lymph radicles.

The lungs are undoubtedly great sieves or screens for the circulation, and an infected embolus or other foreign body gaining the circulation is nearly certain to be washed out in lung tissue. Interference with a gluteal or rectal abscess of tuberculous origin, will often set up an intense pulmonary infection by the great number of bacilli being poured into the circulation and screened out in the lungs. Or again, we note that the infection of one apex is followed by the infection of the opposite apex, and we feel morally certain that this second apex has screened the bacilli from the circulation and that they have not reached it by backward aspiration of sputum. I think these are true clinical pictures of what actually happens. They are certainly strong arguments against the inhalation theory. There is another

side, however, for if one will mount a section of the lungs of a rabbit that has been confined in a heavy atmosphere of lamp black he will find the pigment in the air sac itself, and often it can be seen sticking through the walls of the sac. Between the air vesicles, "frequently at the juncture of the angles of several, minute openings or stomata exist; they usually connect with microscopic passages leading into the lymphatic channels. By means of these channels particles of inhaled foreign matters, often deeply pigmented, are carried from the air sacs into the lymphatics and become lodged within the interlobular connective tissues" (Piersol).

"The interalveolar *sæpta* are considerably thickened and pigmented, and the walls of the air vesicles are thickened and contain numerous dark colored patches. In the air vesicles particles are found in considerable numbers, some of them lying free on the surface of the epithelium, others contained within detached epithelial cells, whilst others again are found within swollen epithelial cells, still attached to the wall. In addition to these are numerous nucleated cells lying free in the cavity. In the lymphatics around the small branch of the pulmonary artery, the masses of carbon pigment are specially numerous. . . . The mucous membrane of the bronchus is entirely free from pigment of any kind" (Woodhead). The lymph ganglia of the neck and other portions of the body show comparatively little pigmentation and if they do pick up much foreign matter from the mucous membrane of the trachea they arrest very little, thereby differing in function from the glands of the lungs. If coal dust and other dust is picked up from the bronchial and tracheal mucous membranes and emptied into the great veins it is not reasonable to believe that all such matter would be screened out in the terminal arteries on the first circulatory trip through the lungs. Surely a large part of this dust would escape arrest and show up in other organs.

There is just one other observation which goes to prove that foreign matter can be inhaled into the air sacs. If the pneumococcus is introduced into the circulation it seeks a serous membrane and will not cause pneumonia. It has to be planted on the *lung mucous membrane* to grow and cause this disease. One's clinical observation is largely convincing that the specific organism of this disease reaches the air sac from without the body in a desiccated state by means of infected dust and not by a backward extension from the upper respiratory tract on which it is a constant parasite. The pneumococcus is found in the air sac itself and to have reached the air sac it must have either been inhaled or have got there by a backward extension along the bronchia.

CAN FOREIGN MATTER REACH THE LUNGS THROUGH
THE INTESTINAL TRACT?

Here again we can feel safe in answering in the affirmative. Nicolas and Descas fed fasting dogs with large doses of tubercle bacilli and in some of the dogs bacilli could be demonstrated in the smears from the thoracic duct three hours after ingestion, and this was without the slightest signs of trauma in any portion of the intestinal wall. This is one of the most important discoveries in recent research in tuberculosis, and if it is true that there was no error in technique, it will certainly strengthen the contention of those who assert that tuberculosis is an ingestion disease, rather than a respiratory one. All who are familiar with the intraperitoneal inoculation of guinea pigs with tubercle bacilli, well know that the lungs show the infection quite early; and in feeding experiments it is common to find the lungs extensively involved with comparatively little involvement elsewhere, in rare cases the lungs showing the only lesions. The anatomy of this is not hard to understand, for foreign matter or bacilli reaching the thoracic duct will be poured into the great veins, traverse the right side of the heart and be screened out of the pulmonary circulation by the terminal arteries, as asserted by Aufrecht. Once the bacillus is arrested, it may then be picked up by the lymph vessels and carried to the lymph glands or deposited in lung tissue. Many still resent the assertion that bacilli or other foreign matter can circulate with impunity in our circulation, and it is necessary to reiterate this statement, as it has important bearing on the subject under discussion; for whatever we may finally determine as to the sources of infection, it will be found that the anatomical destination of bacilli is the blood vessels. A little thought must convince any person that bacteria and foreign matter enter our blood vessels more or less constantly. For example, we have a patient with virulent gonorrhœa, who, a few days later, develops in a distant joint a gonorrhœal arthritis. Or take a fresh liver or spleen from an animal under strict aseptic precautions, wrap in sterile gauze, and after putrefaction has set in, we are able to demonstrate in the blood vessels the bacillus of putrefaction. Or better still, we are called to a perfectly healthy person with a badly inflamed knee which has been injured by a fall, or a blow in a football game. We pass in a sterile needle, withdraw some of the fluid, mount and stain it, and find under the microscope the pus-producing organisms. We have then to deal with a typical joint abscess. Now whence comes the infection? And why? And how?

HOW DOES THE COW CONTRACT THE DISEASE.

In the search after the method of infection of man with the tubercle bacillus, we are justified in

basing fairly definite conclusions on experimental data subjected to comparative pathological analogies. Therefore it is reasonable to believe that, in whatever manner the cow may get her infection, we shall find that anatomically it will not be dissimilar in man. If man gets his infection from tuberculous milk, it is a fair question to ask how does the cow contract the disease as she is not a milk feeder? Or if the contagium is by inhalation in man should we not be justified in believing that the method of infection was the same for bovines?

For a number of years this particular part of the investigation has been uppermost in my mind, for if once we could determine how bovine tuberculosis is spread we should then be close to solving the greatest question of all, which is the prevention of the disease in man.

Study of the habits of animals in various dairies in different parts of the country and closely watching the lesions in bovines on the floors of the abattoirs has convinced me that the method of infection in bovine tuberculosis is by ingesta, and probably never by inhalation. Swine tuberculosis is surely by ingesta. These statements are made with due reservation, and yet I firmly believe that commonly, bovine, swine, and avian tuberculosis is transmitted by infected food. In swine the infection can invariably be traced to the ingestion of milk from tuberculous cows or of the offal from tuberculous animals. The chain here is simple, but with the cow it is harder to understand.

Koch was in error in stating that the cow did not cough, and Ravenel has shown that the cow does cough and that in the act of coughing she drives off to great distances small particles of virulent sputum. These particles she blows into her own food and into the food of her neighbors. I watched one cow for over a year, in the pasture, in the yard, and in the stable. She seldom coughed outside, but eating dry food caused violent paroxysms of coughing. It is easy to see how a coughing cow would drive sputum into her own feed box as well as into that of her neighbors. In licking up salt, bran, and other food, all sputum would be picked up and swallowed. It is the experience of dairymen that a cow runs down quite fast after she begins to cough, and this would be explained by the fact that she is constantly reinfecting herself through the medium of food on which she has blown or coughed her own sputum. It is also the experience of dairymen that many cows entirely recover if removed from stables and put into green pastures. Pearson and others have called attention to the fact that usually the infection radiates from one cow to her immediate neighbor and so on throughout the entire herd.

Through the kindness of officers of the U. S.

Bureau of Animal Industry and other sources, there are sufficient data to justify the statement that the average age at which the cow shows demonstrable tubercle lesions is seven years. Heifers have the disease, as do also bulls, but when this happens, the heifers and bulls were probably allowed in the stable yards, and one familiar with a common milking yard will recall how the bulls and heifers will go from one place to another in the stables, licking up the remains of salt and food after the milk cows have been turned out. It was long supposed by the general reader that range cattle did not have the disease, but several officers of the Bureau of Animal Industry have called attention to this error. It is rarely found in open range cattle, but it is occasionally found in cattle under fence, which never saw a barn or stable. Here certainly the inhalation method could in no way account for the spread of the disease, and the more reasonable explanation would be that the infection had been introduced into the herd by bulls or other animals which had been brought in to improve the strain or breed. These animals may be infected and the spread from them to the herd would be from the "salt licks," or water troughs. On large ranges, pieces of rock salt weighing from fifty to two hundred pounds are placed here and there for the cattle to lick. Cattle lick one another; and once allow ourselves to believe that the infection is by the intestinal tract and those familiar with cattle will readily understand the many ways by which bovines can be infected. Salmon and Mohler have called attention to the large percentage of maternal infections to calves, but this is only an incident, and requires no considerable thought in connection with the present subject. It is only one of the many links of the puzzling chain of infection. We are seeking to know the *common* method of spread of the disease in animals and I believe it is reasonably certain that this is through the alimentary tract by infected food-sputum in the case of the cow, tuberculous milk and offal in swine, and picking in their own infected dejecta in avian. Granting all this, then,

WHENCE COMES THE INFECTION TO MAN?

In the minds of many investigators to-day there is a deep-seated, but ill-defined, belief that tuberculosis is not communicated from one person to another by inhalation through the medium of sputum in any form. They rarely attempt to refute the sputum idea and yet they are not satisfied with it. It does not explain to their minds the scattered cases that crop up here and there, cases that are isolated from all apparent sources of sputum infection. "Susceptibility," "heredity," and "predisposition" are nearly meaningless words to them when

applied to this disease, and they want something more definite and tangible. For years it was believed by nearly every one that tuberculous milk was the medium of infection and then this was ruthlessly attacked by Koch. For a time great confusion was caused by his statement that if infected milk were the medium, then this should cause universal infection, as nearly all milk was more or less tuberculous. It is surprising that he should have based much of his arguments on this ground, for the constant presence and intaking of infected milk or food or the inhalation of contaminated air need not, and does not necessarily, produce a wide spread infection. The percentage of those attacked in a common exposure to typhoid fever infection is comparatively low. This applies to other diseases, and notwithstanding the large number of tubercle cases in the world, it is generally believed that they represent really a low percentage of those actually exposed. Of course, this is only conjecture, but it is one of the reasons why so many believe that there may be some sources of infection other than by the inhalation of sputum. There has been a great deal of speculation over the fact that abdominal lesions in human tuberculosis are rare. This was put forward by Koch as his strongest argument against milk infection, and I confess that it misled me as it must have a great many others. But he himself knows that in feeding experiments, even in guinea pigs, the early lesions often show in the lungs before they appear in the abdominal cavity. The common error has been that we have tried to trace the source of the infection by presuming that the site of the lesions indicated the point at which the bacillus gained entrance to the body. Why one organism will select a certain part of a mucous membrane, another a serous membrane, and so on, can best be answered by a simple formula, viz., a specific organism seeks an organ, serous, or mucous membrane, for the reason that the particular animal tissue furnishes the *exact kind and exact amount of nutritive medium under exact biothermal conditions which make it possible for it to multiply, colonize, and survive its incubative period in the animal organism*. The various organs and tissues of our bodies contain biochemical constituents which materially influence the bacterial invasion as to whether there is, or is not, a colonization, or whether the infection is severe or mild, local or general. We note this peculiarity of bacteria in the laboratory where an excess or often the least trace of some substance in the medium will inhibit or prevent colonization altogether, while the presence of this same material may be necessary in that exact formula for the growth of other bacteria.

There is every reason to believe that tubercle

bacilli gain the circulation, however introduced, and then traverse our blood vessels as simple foreign bodies until arrested, and I believe the method of arrest is commonly by the pulmonary terminal arteries as explained by Aufrecht. In adults the lungs furnish the exact formula and the disease manifests itself as the pulmonary form, while in children the intestinal infection is the most common.

Inhalation experiments on animals are never satisfactory, for it is next to impossible to produce results which in any way would represent the normal conditions under which the animal lived. Nor are we justified in affirming that an inhalation experiment is successful, unless it can be positively proved that the contagium was inhaled into the lungs. Pearson and Ravenel did an interesting experiment with guinea pigs suspended in cages over coughing tuberculous cows. Eventually the pigs became tuberculous and the presumption is that they were infected by inhalation. This was a very clever experiment and one which at first was quite conclusive to me that the disease is respiratory, but the experiment is not altogether convincing, for, while acknowledging that the contagium reached the guinea pig's cage by sputum from the coughing cows, it may after all have caused infection through the alimentary tract from sputum deposited on the pig's food and in its cage where it could lick it up. It is useless to make the assertion that an animal cannot be infected through its respiratory tract, for while the experiment of trying to prove it may fail or fall short of scientific requirements, we nevertheless feel certain that reasoning by exclusion justifies the statement that the method of infection in measles, mumps, whooping cough, small pox, etc., is respiratory, colonization being somewhere on the respiratory mucous membrane, in most cases deep down in the lung tissue itself. Yet, if there are some diseases that are certainly respiratory, why not tuberculosis? Those who will have us believe it impossible for tubercle bacilli or other foreign matter to reach the air sacs by inhalation, must satisfactorily explain the deposits of coal dust in the lungs.

It is admitted that the reports concerning house infection to man are imperfect and show faulty investigation in nearly every detail. Attempts have been made in New York and Philadelphia to show that certain houses have been infected for a term of years, that is, that cases were found in these houses during this time. These reports have been of little help except to bring about a grand movement for better housing of the poor. We are not prepared to admit even that these cases got their infection in these particular places. To offset any claim for house infection to man we have well authenticated the state-

ment from several sources that no case of tuberculosis has developed among hospital attendants in any of the great sanatoria. If the infection were by the respiratory tract it seems that in all this time we should be able to report authentic cases originating among the hospital attendants, as a large percentage of them have been employed in these institutions for periods averaging five years. The home of tuberculosis is in squalor; and cases are found in these marked houses, not because they necessarily originate there, but because in any event the consumptive poor are drawn there on account of their poverty. Let us lay aside the element of "*susceptibility*," "*lowered vitality*," "*overcrowding*," etc., among the poor and come squarely to something tangible and reasonable and seek for the real factor in the cause of the greater prevalence of the disease among the poor in the constant dosage of the contagium. This factor of dosage applies to cattle as well as man and the filthier the habitations the greater the dosage, of course.

In the reports of recent years by careful observers there are no details of cases that we should feel like accepting, that show direct contagion from one member of a family to another member. It is true that many such cases are reported, but they are not free from error. It is often true that two or more of the same family have the disease and die, and, too, there is very little doubt that the source of infection was common to all. But this would be as strong an argument for milk and food infection as for respiratory infection. One could go on indefinitely multiplying examples of this kind but they prove nothing and are unprofitable.

Koch gave the pendulum a mighty swing at the London congress, but already it has turned and is swinging back to milk infection. This is true in this country and is rapidly becoming so in Germany. It seems as if milk infection will not down.

To stand out before the world, as Koch did at London, and declare his belief that tuberculous milk was not a factor of consequence in human tuberculosis, required great courage, even from a man of his ability. His convictions surely were not arrived at from those few experiments, but by pure deductive reasoning. I think time will show that his pathological analogies were fallacious and yet his assertion, that tuberculous milk was not a factor in human tuberculosis is substantially correct. Whatever the outcome, Koch has done more to keep investigators to rational lines than any other man, and the world will give him the credit that is his. He has brought us to our senses with a sudden snap and turned the attention of pathologists into the right channels of investigation, viz., comparative pathology.

IS TUBERCULOUS MILK AN IMPORTANT FACTOR IN
THE SPREAD OF THE DISEASE?

Tuberculous milk, then, must receive our most careful consideration, but in doing so we must disregard and keep out of our minds the point infected, for the site of a tuberculous lesion does not indicate what part of the body the bacillus entered. We must also accept and believe that the bacillus can penetrate a mucous membrane without lesion, and that it will do this whenever there is sufficient lymph-suction, as there would be from the alimentary lymph radicles to the thoracic duct.

The medical literature of the world fairly teems with reports of cases of human tuberculosis alleged to be from milk infection. To-day are arrayed on the side of milk infection most of the great workers in comparative pathology, and nearly all of the pathologists of the great nations of the world who work on the subject and are connected with the animal industry, stand out more or less strongly for milk infection from boviness to man. They believe that avian, bovine, and human tubercle bacilli are the same species but slightly diverted, because of the different medium, or host, in which they are grown. That is most likely the case, and we know from Nocard's experiments and those of others that the specificity of tubercle bacilli can be changed from one species to another. Granting all this, it would seem that it would require great and constant dosage of tuberculous milk to bring about the changed specificity in man.

Tuberculous milk is probably only one of the minor links in the chain of infection to man. My reasons for this belief are based principally on the fact that milk as an article of diet among oriental races is nearly unknown. I have known, since 1893, that milk was not a factor of importance in the spread of the disease in China, but not until recently could the facts be obtained in such shape that they would be useful; besides, this knowledge coupled with the later assertions of Theobald Smith and Koch, misled me into the belief that commonly the disease was of respiratory origin. And, too, it was feared then, as it is now, that such information would be used by interested persons to retard or prevent the grand work being done by veterinarians in the prevention of tuberculosis of cattle and the use of tuberculous milk. That there may be no misunderstanding of my position I stand firm in the belief that bovine tuberculosis may be transmitted to man.

By the kindness of officers of our government and missionaries abroad I have been able to collect a large amount of valuable data along this line. The data from China are not based on actual figures, as these cannot be obtained, but from Japan we can

present accurate statistics upon which we are able to lay definite conclusions. One of the best informed of the foreign residents in China is the Rev. E. T. Williams. He has been a missionary in China many years and knows the people in all parts of the country. He is now attached to the American Legation at Peking and he writes as follows:

"The prevailing impression that China is overcrowded is incorrect. It is true only in certain regions near the sea coast, such as about Canton and Shanghai. The population of the whole empire of China Proper (which excludes the sparsely settled regions of Manchuria, Mongolia, and Thibet) averages considerably under 300 to the square mile, even accepting the best estimate made of the total population, 380,000,000, furnished by the Imperial Maritime Customs reports. The most densely peopled province is Kiangsu, in which Shanghai is situated, which contains about 850 to the square mile. But this is a most fertile plain penetrated in all directions by navigable water ways. The province in which Canton is situated averages but 241 to the square mile, as against Java's 554, or Belgium's 579. There is overcrowding, of course, but it is a feature of certain parts, just as it is at home. Now as to your queries: (1) For reasons above given, it is impossible to secure any statistics that will show the relative death rate of tuberculosis as compared with other diseases. (2) My own impression is that the disease is quite common, not only in crowded districts, but elsewhere. This impression is borne out by the testimony of medical missionaries and others. Dr. S. Wells Williams in his *Middle Kingdom*, Vol. II. p. 130, says that consumption is common at Canton and Chusan. The latter place is an island off the coast near Ningpo, where formerly the British made a settlement, afterwards abandoned. Last autumn I was requested by Mr. Conger to make some inquiries into the prevalence of certain diseases, among them tuberculosis was mentioned. I wrote to medical missionaries in various parts of China, and from their reports I gather the following: Dr. Peck, of Pae-ting Fu (eighty-five miles southwest of Peking), says: 'Tuberculosis in all its forms is the great scourge of North China. The bacillus produces its characteristic ravages not only in the lung tissue, but in the bones, skin, and bowels. The habits of life among the people make every house a culture bed for all sorts of bacteria and bacilli.' Dr. Peck has had twenty-two years' practice in this region. Dr. Gatrell, of Peking, wrote: 'With regard to syphilis and consumption I would say that both these diseases run riot in this part of China.' Dr. H. W. Boone, of Shanghai, one of the oldest American physicians in China, says: 'Consumption and cancer are common in this part of China.' Dr. Macklin, who has had seventeen years' practice in Nankin, says: 'Syphilis and tuberculosis are exceedingly common.' (3) The use of milk as food by the Chinese is so rare that one may say practically that they do not use it. I have never known a Chinese to use it, except where he had acquired a taste for it by living with Europeans; but the Manchus and Mongols use it in large quantities. I have not been able to learn as yet whether or not they suffer more

than the Chinese from tuberculosis. I have known human milk to be prescribed by Chinese physicians for aged people, but not cow's milk. One reason may be that very few cattle are reared by the Chinese, and those few are kept for plowing, not for food. An exception may be noted in the case of Mohammedan Chinese who do eat beef, but even they do not so far as I have observed, use the milk. Ordinary Chinese are averse to eating beef from religious scruples. (4) I do not know whether the cattle in China are much infected or not; shall make inquiries upon this point and write you again."

Through the courtesy of Assistant Surgeon Dunlop Moore, of the U. S. Public Health and Marine-Hospital Service, now stationed in Yokohama, Japan, I am able to present some very interesting statements with the statistics covering them. In answer to a personal inquiry he writes that,

"First, it may be stated positively that cows' milk is a factor of no account in the ætiology of tuberculosis in Japan, for the reason that speaking generally it is an uncommon article of food among the Japanese. This is a fact so familiar to every observant traveler in Japan that it requires no further comment. According to the census of 1899, there were in Japan 769,163 cows and 483,702 bulls and in the same year 208,877 cattle were killed for food. The population was 44,260,642. The cattle are unevenly distributed, but in one large district averaged only about 9 per 1,000 of population. At a true Japanese hotel I have never seen milk or any article of food containing milk served unless specially ordered, and in the country and smaller towns it is usually not to be had. Of course it is used in the large cities where foreigners dwell. Butter and cheese are largely imported from Europe, but generally speaking are not used by the Japanese. Ice cream, I may mention, is attaining some popularity with the city people. It seems probable that the causes of tuberculosis do not differ essentially in Japan and America unless an insufficient dietary and comparatively temperate habits as regards the use of alcoholic liquors may influence the mortality in the former country. Total number of cows for milking purposes in Japan 25,534 (1901). They are very unequally distributed thus: Tottori Ken, population 412,000, contained in 1901 only 56 cows for milking purposes. Tokyo, population 1,907,000 (not including about one quarter million non-resident soldiers and students) contained 3,400 cows for milking purposes. The chief use of cow's milk among the Japanese is medicinal, it being prescribed by physicians in certain cases of illness.

YEAR.	POPULATION OF THE JAPANESE EMPIRE.	DIED FROM CONSUMPTION.
1897	43,228,863	65,597
1898	43,714,142	72,708
1899	44,205,873	75,796
1900	44,710,073	78,972
1901	45,227,464	81,669

Among those who died from consumption during the year 1901 there were 42,259 males and 39,410 females, total 81,669."

I am informed by Surgeon Major Charles B. Nichols, of the army, formerly stationed in Manila,

that among the Philippinos milk cannot be considered a factor, for the reason that there are very few cows, and it is practically not used by the natives. And yet in all these oriental people tuberculosis is more common than with us.

ARE WE THEN TO DISREGARD MILK INFECTION AND CONCLUDE THAT HUMAN TUBERCULOSIS IS NOT AN INGESTION DISEASE, BUT PURELY ONE OF RESPIRATORY TRANSMISSION?

This is the hardest problem of all, and one about which there will be great diversity of opinions. We now have sufficient pathological data of tuberculosis to enable us to fix upon maximum and minimum comparisons of the lesions of bovines and man which surely will induce any one to admit that the method of infection is practically the same in one species as in the other. The truth probably lies somewhere near the assertion that, commonly, the infection in tuberculosis of both species is by the alimentary tract, whether from tuberculous milk or meat; or food on which sputum has been planted by flies; or by sputum being deposited from inhaled dust on the pharyngeal mucous membrane and then swallowed. Personally, I believe human tuberculosis to be conveyed both by inhalation and ingesta, but largely, if not principally, by infected food, the common house fly being the medium of conveyance from the ejected sputum to the food on which it alights. Three years ago I demonstrated that a fly alighting on a sputum box in front of me carried sputum to a window pane several feet away. Flies alight on exposed sputum and they seem to be attracted to it. They swarm around spittoons and sputum cups, and that they then alight on exposed food we know to be a fact. In the homes of the very poor there is no protection of food from flies. On the streets of large cities we see food, candies, etc., exposed for sale swarming with flies. In Cuba, the Philippines, and all oriental countries, articles of food receive no protection from contamination by flies. In Manila during the cholera epidemic the comma bacillus was repeatedly demonstrated in food sold by vendors, on which contaminated flies had alighted. There are many ways by which tubercle bacilli from sputum can be planted on food by flies, and desiccated sputum and sputum in droplets could also settle on food in the immediate environment of a coughing and spitting patient. Hardly any one will deny the possibility that sputum, either desiccated or in small droplets, reaches some portion of the respiratory mucous membrane by inhalation, but it would seem that in the squalor of the tenement districts, with all that our minds can picture of their filth, the fly must be the greatest factor in the spread of the disease.

LOS ANGELES, CALIFORNIA.

ESSENTIAL, OR IDIOPATHIC, SPASM.

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This neurosis, sometimes called intermittent tetany, or tetanilla, coming on suddenly in a robust young man weighing over 160 pounds and 6 feet 10 inches in height, presents a pitiable picture and one that taxes our wits to overcome.¹ The case I have to present occurred quite recently in my practice.

CASE.—The young man is robust and strong; so far as physical strength and development are concerned. But he is a neurotic and has been from childhood afflicted with occasional attacks resembling *petit mal*. He has been under bromide treatment for years. He has been unable to attend for any length of time to any business, on account of his affliction, though willing and strong enough between the attacks. All his organs and bodily functions are in normal condition.

On June 11, 1903, I was called to attend him for an attack of a kind that he had never experienced before. I found him writhing in bed and in great agony. For a minute he would be calm and cheerful and chat with those about him; and then would come a spasm that would lift him up in bed, or turn him over on his side, or bring his legs up to the perpendicular, or arch his back so that he rested on his head and heels. The spasms were confined to legs, arms, and abdomen, and were at first bilateral, later unilateral. No trismus, facial tremor, or spasm of glottis. Between the attacks he felt absolutely well, with the exception of excusable nervousness over his affliction and the not knowing how soon another jerk of his body would come on. No fever, no headache—and the only pain he complained of was great soreness of his bowels.

For two days I tried every remedy recommended by the authorities at my command. Chloroform inhalations stopped the spasms during the sleep induced by them—to be resumed as violently as ever as soon as narcosis was recovered from. Opium, morphine, atropine sulphate, chloral hydrate—all these only stupefied and had but a temporary action. So I was constrained to accept the suggestion of a consultation. One was held. Nothing aside from the treatment already instituted was suggested, except to substitute the bromide for the sulphate of morphine. The patient continued to have the most powerful spasms.

In my extremity I thought of *henbane* and its relaxing effect. I determined to try it, and selected *hyoscine hydrobromide* as its best and most potent representative. I injected hypodermically $\frac{1}{100}$ grain into the soft cellular tissue of the flank. In from ten to fifteen minutes I was pleased to note that the remedy was having the desired effect. Later, it brought on complete muscular relaxation and the patient passed into a quiet and restful sleep. I repeated the dose in four hours, and again at night. Thereafter, I gave it each day,

morning and night. At first his spasms would come on before my visit, but they were not of so violent a character. Each day showed decided improvement over the previous day, so that by the sixth day I gave him but one dose, and on the eighth day I omitted it entirely. After that for three days I enjoined absolute isolation in his room, with liquid and vegetable diet. No exercise whatever.

Possibly a recurrence may be expected; but I think that in *hyoscine hydrobromide* we have an efficient antidote.

A FORM OF RATIONAL TREATMENT FOR CORNEAL ULCERS.

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From time to time many new drugs have been proposed for the treatment of corneal ulcers. Some have been accepted and have received a place in our ocular therapeutics; others, less fortunate, have been found to be useless, which still leaves an opportunity for original research. The treatment of corneal ulcer is at times very difficult and puzzles the physician so that he knows not what is best for his patient; but, again, the simplest remedy may suffice.

The classification of corneal ulcers may be divided into many different forms, such as serpiginous, rodent, marginal, etc. But in this paper it is more convenient to classify them all under one general head; for, in speaking of the treatment of ulcer here, we mean ulcers in general and not some particular form.

As the theory of this treatment is based upon the structural composition and pathological state of the cornea it becomes necessary briefly to describe the anatomy of that part and take up the conditions that have a bearing upon this disease.

The first layer is made up of epithelial cells. It is a direct continuation of the bulbar conjunctiva; the second layer is so thin that it may be conveniently classified as part of the first or third. The proper substance, or third layer, is the most important, as it carries the nutrition to the cornea and by its connection with the deeper structures may infect them when diseased. It is made of a system of spaces or lacunæ situated in the cement substance, which send off prolongations in every direction, forming small canals by way of which the lacunæ on each side communicate with each other.

The other two layers are the last to be infected, and if the disease extends to them it is generally followed by rupture of the cornea and escape of aqueous, which acts as a curative agent by lowering tension.

¹ For an account of the disease see Flint's *Practice of Medicine*.

When the cornea becomes ulcerated from any cause, we have the same general pathological conditions arising. First, an infiltration of a circumscribed area; second, suppuration with a consequent loss of tissue. This process irritates the nerve filaments in the cornea and causes the blood vessels to dilate, which brings more blood to the iris and conjunctiva.

This increase in the calibre of the iris blood vessels, allows the albumin of the blood to escape into the anterior chamber, which makes the excretion of aqueous more difficult and raises tension. This tension crowds the inner wall of cornea against the lymph spaces, which are forced against the outer unyielding coats of the eye and are nearly obliterated, destroying nutrition and robbing the cornea of its resistant power.

Dr. Troncoso, of Mexico, found by analysis that the aqueous of an eye when ulcerated, showed fibrin in large quantities, organic ingredients notably increased, albumin 0.35 per cent.

The increased quantity of blood also causes the bloodvessels of the conjunctiva to spread to the cornea to supply the diseased area with nutrition which has been more or less cut off by the increased pressure from within.

This vascularization of the cornea produces pressure on the lymph spaces by decreasing the amount of space in the cornea; not being able to press outward, it presses inward and meets the pressure from the anterior chamber which crowds these minute canals into a smaller space. Nature is thus unable to force the same amount of blood through the decreased calibre of these canals, to keep up the proper amount of nutrition, and owing to this, destruction gradually advances until rupture occurs, tension is lowered, the ulcer heals because the lymph spaces are relieved of their pressure and the new blood supply is more than sufficient to check the progress of the disease.

To treat ulcers according to these pathological conditions we must first aid Nature to overcome the disease. To do this it is necessary to contract the arteries in the conjunctiva and iris; by so doing we check the escape of albumin into the anterior chamber and stop vascularization of the cornea. This will lower tension and restore the nutrition to the cornea by liberating the lymph spaces, and it will also render the deeper structures less liable to infection; to accomplish this I use suprarenal extract.

Secondly, because it is nearly always, if not always, due to a germ, we must render the conjunctival sac antiseptic with some mild preventative, such as boric acid.

Thirdly, we must build up the lymph corpuscles to

a healthy condition to bring about resolution, for one of the predisposing causes of ulcer is a lack of resistance, that is anæmia, which may be local or general. For this I use nuclein solution, 5 per cent. (the hypodermic solution being less irritating). The disease should also be treated constitutionally.

Fourthly, we must treat the conditions which have a bearing upon this disease, for a great many times ulcers have their origin in other diseased parts, such as caries, adenoids, hypertrophies of the turbinates, etc.

In using this treatment the suprarenal must be dropped into each eye three times a day, and as the severity of the disease increases, the medicine must be instilled oftener, up to ten times a day, depending upon the absorption of the drug and its action on the heart. The eye should be kept clean with warm boric acid solution and the nuclein solution should be combined with, and given in the same way as, the suprarenal.

On January 8, 1901, Mr. G. came for the treatment of an ulcer which involved one-fifth of the cornea. He gave a family history of tuberculosis, all of his relatives having died of this disease. He at the time was tuberculous. Although unable to prove it, it is my belief that it was a true tuberculous infection of the cornea. There were great tension, iritis, pain, and involvement of deeper structures. Suprarenal was prescribed four times a day, besides dropping it in two or three times at each office call. January 11th, which was the third day of treatment, but the tenth day of the disease, the ulcer involved about two-thirds of cornea, this was, of course, discouraging, but on closer examination it showed lowered tension and no iritis, which encouraged me to continue.

January 12th, the fourth day of treatment, the cornea had improved greatly, and by January 22nd there were only three small opacities. As these remained for a week, it was decided to try other treatment, but in two days the opacities involved one third of cornea with a partial loss of the epithelium. On changing to the original treatment the cornea became clear in a week, the eye remaining well for a year.

Mr. G. had previously suffered from ulcers six times, taking for the quickest cure four months, the first time treating with this new way the duration of the disease was fourteen days; the second, seven days.

This same general treatment was used in three other cases with the same good results until a boy, seven years old, came to see me about this disease. His trouble involved both eyes, extending one third around cornea at limbus, following measles; the patient was anæmic. With the use of suprarenal extract and chloretone the ulcers were cured in seven days, but on stopping the treatment for three days it returned. Same treatment same results.

After curing the ulcer in this way three times it

was decided to add nuclein solution (5 per cent. hypodermic solution) to the suprarenal and chloretone to overcome the anæmia. This was dropped into the eyes four times a day, and at the end of seven days there was no sign of the disease. A few days over a year later he returned with the same trouble; this time the treatment restored health to the eyes in three days.

From this time the remainder of the cases were treated with the nuclein and suprarenal. These good results followed until January 28, 1902, when Mr. I. came to me for treatment.

He was at this time suffering with an ulcer in each eye. He gave the history of having had it seven times and always following colds. The ulcer involved the central portion of each cornea with vascularization. A nasal examination showed that he was troubled with adenoids and hypertrophy of the middle turbinates. After treating him in the usual way for three days the eyes were slightly improved. The patient then consulted Dr. Mulford, who cauterized the left side of the nose, and within forty-eight hours of the use of the cautery the eyes were entirely cured, showing it to be purely nasal in origin.

This case was reported to show that the general system has a marked bearing upon this disease, I might say that the greater number of ulcers return within a year and a half. Of the thirty cases treated in this way I failed to find one returning within a year and three days, the longest to resist return was fifteen months.

The ulcers under treatment were of different kinds, from different causes, and were found in both sexes from seven to fifty-three years of age. The longest time for a cure was twenty-eight days, the next longest fourteen days, the rest within a week.

For this treatment I do not claim great virtues, but I do assert that it is an improvement over the old, which retards rather than assists Nature to stop this destructive disease. To prove this let us examine closely a few of the older drugs.

Hot applications, produce a hyperæmic condition of the conjunctiva, iris, and eye in general. Of course, it is true that an increased amount of blood to any part will hasten a cure, provided it has sufficient nutritive power; but this is not so in the eye, for with the increased flow of blood we have greater tension and, as I have previously stated, this lowers the vitality of the cornea by pressure upon the lymph spaces, robbing it of its nutrition.

Atropine sulphate increases tension.

Cocaine decreases tension, and would be an excellent remedy if it were not for its drying effect upon the cornea; this drying robs the cornea of the vitality which is so essential for the curing of ulcer.

Yellow oxide of mercury is stimulating, bring-

ing blood to the part, increasing tension and vascularization, thus acting as a destructive agent. It has one redeeming feature, however, it acts as an antiseptic.

Paracentesis lowers tension, but produces a direct path for infection.

Cauterization. The after effect of the cautery is shown generally by an opacity, which becomes more or less permanent, decreasing the visual acuity. It should never be resorted to until all known remedies have been tried. Of course, ulcers leave opacities, but this is not true scar tissue like that induced by the cautery, and does not become permanent for a long time after the ulcer is healed.

To prove this let me recite a case:

Mr. E., who had suffered with gonorrhœal ophthalmia, was left with an opacity of the left eye, it involved the entire cornea and was so dense that the patient was unable to tell light from darkness; it had remained so for months. Having tried all known remedies for its removal, I proposed as the last resort hydrogen peroxide, on the theory that it was not true scar tissue, but some other substance crowding the cornea.

After the use of cocaine a 50 per cent. solution of peroxide was dropped into the eye. Immediately the cornea began to foam over the opacity. After cleansing the eye the patient was able to count fingers at four feet.

The cornea presented a fish-net appearance of white bands. These good results only remained for twenty-four hours at a time, and the cornea then resumed its former appearance. The same results were obtained in other cases. No permanent effect.

This application of peroxide of hydrogen caused a conjunctivitis, a great deal of pain, and had a tendency to produce vascularization.

In three patients there was a great amount of irritation from toxines produced in the suprarenal and chloretone solution. The same solutions caused an inflammation in all eyes upon which they were used, whether they were inflamed or not, but this was overcome by the use of suprarenal and chloretone that was free from toxines.

These three patients had their prescriptions put up in different cities, and the cause was due to the fact that the original bottles were not kept in dark cool places.

Adrenalin chloride, 1-1000, does not seem to produce the same effect as does the suprarenal and chloretone when combined with the nuclein solution.

In conclusion it might be said that it always lowered tension, stopped vascularization, checked iritis, and rendered the deeper structures less liable to infection.

Mount Sinai Hospital, of Milwaukee, Wis.—William A. Sickels has been appointed consultant in x ray diagnosis and treatment in this institution; H. L. Nahin has resigned from the staff.

GROWTHS OF THE MALE URETHRA
WITH REPORT OF THREE CASES.*

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As growths in the male urethra have no characteristic symptoms they are so rarely diagnosticated during life that it is worth while to report the following three cases, which, from the fact that they represent mistaken diagnoses, may be found interesting and instructive, and add to the meagre literature on this subject.

CASE I.—M. B., age forty-nine years. First seen September 19, 1902, in consultation with Dr. T. W. DeHass and Dr. J. B. Gibson.

History: Had never had gonorrhœa or other venereal diseases. Had enjoyed good health until March, 1895, when he had a copious urethral hæmorrhage. Previously to this for a number of months he had observed a gradually increasing difficulty in voiding urine. After the hæmorrhage it was several months before there was a recurrence, but the urethral obstruction continued. From that time to date of examination hæmorrhages occurred at intervals of three or four months, always following some physical effort. At times these hæmorrhages were profuse and reduced the patient's strength to such an extent that he was confined to bed, though he usually rallied quickly as soon as the hæmorrhage had been controlled. There were times when the obstruction was so complete as to require catheterization. Passing the catheter was neither painful nor difficult. For the last two years urination has always been accompanied by violent cramping, and could be accomplished only by manipulation of a nodule in the perinæum. He had also, when hæmorrhage was present, suffered from frequent urination, being compelled to get up every two hours during the night. No treatment had ever given more than temporary relief.

The patient was weak, anæmic, and confined to bed. Both testicles had undergone atrophy and were about the size of small hickory nuts. That the epididymides had been inflamed was shown by infiltration and induration of the globuli majores and minores. Beginning at the penoscrotal junction and extending backward an inch and a half was found a nodular ridge three quarters of an inch wide. When the patient attempted to pass urine it was attended by violent pain and cramping and a condition of the perineal portion of the spongy urethra, resembling an erection. By touching and manipulating the nodule in the perinæum the urine flowed freely. The urine was of a dark red color as if mixed with blood.

Microscopical examination showed blood. No tubercle bacilli or other microorganisms could be demonstrated.

Rectal examination revealed an extensive exudation into the walls of the seminal vesicles and the intervacular space due to the chronic seminal vesiculitis.

Examination with the urethroscope, using a 30 F. tube, showed a large pedunculated fusiform growth posterior to the junction of the prostatic and membranous urethra, and the membranous and bulbous urethra so dilated that its calibre was approximately 64 F.; in front of this was a mass of growths, some flattened, others rounded, dilating and filling the urethra for a distance of an inch and a half. They were very vascular, bleeding on the slightest touch, and so crowded together that they could not be counted.

On account of previous arrangements I was unable to undertake the treatment of the case at this time, so the patient was sent home and returned on October 29th. I then made an application to the growths of a sixty grains to the ounce solution of silver nitrate. Previous to the second application I succeeded in removing one of the growths, which was submitted to Dr. O. N. Torian for microscopical section. He reported that it was an ordinary mucous polyp.

From this time until December 17th the same solution, or one of chromic acid, a hundred grains to the ounce, was applied at intervals varying from four to seven days. At first the growths rapidly diminished in size and some entirely disappeared, but the remainder grew more resistant and finally the application ceased to diminish their size. In the meantime, however, the perineal mass had so decreased that only a trained touch could find evidence of the growths by palpation. Micturition was not accompanied by cramping, and the calibre of the dilated portion of the urethra was nearly normal.

The removal of the growths by the snare had been previously considered and an attempt made, but the bleeding after removal of one growth was so copious and persistent that I could not see to catch another. After some experimentation with the hæmostatic power of adrenalin chloride, 1-1000 solution, it was determined to make another effort with the snare, and try to control the hæmorrhage by direct application to the growths of the adrenalin solution. Sometimes under its hæmostatic influence the bleeding was so controlled that one application was sufficient for the removal of two growths. At the first sitting I succeeded in removing twelve polypi, using only two drachms of the solution. More could have been removed, but the tube having been in the urethra for an hour and a half it was felt that it would not be wise to subject the urethra to the danger of injury by retaining it longer. After a week's interval the urethroscope tube was again introduced and six more growths were removed.

At this time the fibrous polypus was caught at the largest part and the wire became imbedded in the growth, but was not strong enough to cut through and broke near where it was fastened to the instrument. As the snare could not be withdrawn, the wire was spliced and broken several times, until finally the wire was loosened and the operation was suspended because the supply of wire was exhausted. Manipulation showed that the growth had a pedicle of about one inch and three-quarters in length. The size of the pedicle could not be determined, because

* Read before the Indiana State Medical Society, June 5,

the growth was large enough to fill the field. On the following day an attempt was made to locate this growth, but the urethra was found entirely clear. It was at first supposed that the growth had been washed back into the bladder by the injection, as it had on a previous occasion, but the patient subsequently remembered that he had, while sitting on the water-closet, passed urine attended by a sharp stinging pain, followed by some hæmorrhage. So it was evident that the growth, the pedicle of which had been weakened by the effort to twist it off and by the strangulation induced by allowing it to remain in the twist, had been torn loose and carried away by the current of urine. This was possible, because all the obstructing growths had been removed.

The remarkable features of this case were:

First, The number of growths. Twenty were removed by the snare, one came away spontaneously, and an interminable number were removed by the caustic solutions.

Second, The dilatation of the urethra, behind the papillomata.

Third, In the damage to the sexual tract. The patient by continuing sexual intercourse after the development of the obstruction induced a seminal vesiculitis, which became chronic. This had, on different occasions, taken on an acute character, and involved the epididymides and testes, resulting in the induration of the epididymides and the atrophy of the testes.

The patient, much improved in general health, was allowed to go home January 29th, with instructions to report for another examination in four weeks. On March 14th an examination showed the urethra of normal calibre and clear of growths. The patient reported that there had been no hæmaturia in the meantime. The patient's condition was markedly improved and he reported a gain of forty pounds in weight since the beginning of the treatment, and that he could now pass a normal stream of urine. The exudation from the seminal vesiculitis was much diminished and was softer to the touch.

CASE II.—L. C., age thirty-one years. First seen December 18, 1901.

History: Had never had venereal disease other than chancroids; had indulged liberally in sexual intercourse and had for a year yielded to sexual excesses.

Symptoms: Sexual hyperæsthesia, nocturnal pollutions once or twice a week, glairy, sticky matter appearing with the last drop of urine or when straining at stool.

Examination of urine, two-glass test, showed both cloudy, with shreds and flakes. Microscopical examination revealed pus corpuscles and some round-celled epithelium.

Rectal examination showed the vesicles normal and the prostate moderately enlarged and tender to touch. Pressure on the prostate caused to flow

from the meatus a moderate amount of tenacious, yellowish-white secretion.

Examination of the urethra with flexible bougie-à-boule showed marked tenderness of the prostatic urethra.

Diagnosis: Follicular prostatitis.

Treatment: After several months of prostatic massage and urethral irrigations and instillations the prostate was reduced to normal size and feel, but the urine continued just as cloudy and the tender point in the urethra remained.

I became convinced that there was an undiagnosed lesion in the urethra and determined to make a urethroscopical examination. The tube having been introduced through the vesical sphincter, as it was withdrawn a growth, filling nearly the entire field of vision, was found in the prostatic urethra near its junction with the membranous portion. The darker color of this tumor contrasted with the paler hue of the surrounding mucous membrane, to the lower right-hand wall of which the tumor was attached by a fairly broad pedicle. The growth was the shape of a large pea with one third of the portion corresponding with its base cut off.

Several applications of a caustic solution producing no results it was determined to resort to a radical measure.

Having thoroughly cocainized the growth it was seized with alligator-jawed forceps, the tube firmly pushed against its base, at the same time traction and torsion made with the forceps, and most of the growth easily removed. A slightly ragged wound was left and a moderate hæmorrhage ensued.

After this, the patient, as a result of indigestion and mental strain from business complications, suffered from phosphaturia, which induced inflammation of the urethra and caused the pus in the urine to be much increased. The phosphaturia having been controlled, a few irrigations of 1-3000 potassium permanganate solution and deep instillations of fifteen grains to the ounce of copper sulphate solution cleared up the urine.

Subsequent examination with the urethroscope showed the wound caused by the removal of the growth entirely healed. The urine was free from pus but contained a few flakes of epithelium.

The condition of the patient was much improved by the removal of this growth, the discharge entirely disappearing, the sexual hyperæsthesia being relieved, and the nocturnal emissions occurring at intervals of from ten days to two weeks.

CASE III.—G. S., age forty-two years. Was seen at my office November 6, '03.

History: Had gonorrhœa eight years previously and since that time has been greatly annoyed by frequent and urgent micturition, being sometimes compelled to rise three or four times during the night to void urine. Though under almost constant treatment he has never been able to obtain permanent relief.

After careful examination a diagnosis of stricture of the meatus and chronic seminal vesiculitis was made.

The patient was treated in the usual manner for three months and the objective symptoms were much improved, with only slight, if any, improvement as to the frequent urination. It was then determined to explore carefully the entire urethra.

As a result of examination there was found in the prostatic urethra, about an inch from the bladder, a growth about the size of a large broom straw which was attached to both the roof and floor of the urethra. With serrated jawed urethral forceps the growth was crushed and twisted from its attachments. In removing the growth it was so badly lacerated that no sections could be made for microscopical examination.

The verumontanum was much congested and enlarged, and after the application of a strong solution of silver nitrate it resembled a condyloma acuminatum. By repeated applications of strong solutions of silver nitrate the infiltration and congestion were relieved and the patient's condition much improved. The patient is still under treatment for the chronic seminal vesiculitis, but the frequency and urgency of urination have been so nearly relieved that he has gone as long as two weeks without being compelled to rise at night to void urine, and as the exudation from the chronic seminal vesiculitis has not all been absorbed there is at present no more disturbance than would naturally result from this condition.

From reports that have been made by careful observers the conclusion is reached that in urethral growths the papillomata occur in the anterior urethra and the fibromata in the posterior urethra. Papillomata of the urethra do not differ radically in any way from those of the skin or from papillomata acuminata. In the first case reported part of the growths resembled very much the ordinary condylomata lata seen frequently in the coronary sulcus. If the first inch of the urethra be excluded fibromata are as a rule, more frequently seen than papillomata. Papillomata are much more vascular than fibromata and therefore bleed more readily, and are more sensitive to touch.

Ætiology: Gonorrhœa was formerly supposed to be the sole cause. It is undoubtedly one of the ætiological factors, but of the three cases which I submit for your consideration in only one could this cause be a possible factor.

In the first case I believe that the pedunculated fibroma was the original growth, and its origin was senile disturbance of the prostate. I feel sure that by resistance to the flow of urine afforded by the growth the pedicle was gradually lengthened until it lay in the bulbous urethra and that the continued irritation resulting from it was the cause of the polypi. It was this growth, undoubtedly, acting as a ball valve, which caused the violent cramping attending each urination and which was so promptly relieved by its manipulation.

In Case II the growth was a fibroma, but I am unable to assign any cause for its development, and in Case III, from the location of the growth and from its character, I feel certain that gonorrhœa was not an ætiological factor but that the growth caused the irritation induced by the gonorrhœa to

persist. It has been suggested, with good reason, that urethral polypi are analagous to similar growths in the nose. If this hypothesis be well grounded, gonorrhœa, as an ætiological factor, may be entirely excluded.

Symptoms: Gleet discharge, frequent micturition, obstruction, retention, dribbling and incontinence of urine, hæmaturia, urethral hæmorrhage, sometimes very copious, sexual hyperæsthesia, impotence, tenderness at point of location of growth. Symptoms depend somewhat on the size and location of the growths, those of the anterior urethra producing points of tenderness, gleet discharge, obstruction, and urethral hæmorrhage; in the posterior urethra they cause hæmaturia, urethral hæmorrhage, sexual hyperæsthesia, prostatic enlargement, frequent urination, incontinence and obstruction.

The same care must be exercised in the examination of these cases as in old stricture, for Mr. Brown reports a case of a boy, eighteen years of age, where giving ether and slitting the prepuce and passing a small sound caused suppression and uræmia from which patient died in two days.

Treatment: Only local, by enucleation with the knife, scissors, cautery, loop, or application of strong astringent and caustic solutions.

This can be accomplished by external urethrotomy or through the urethroscope tube. If the urethra is large enough to admit a 28 F., or larger, tube, removal can readily be accomplished with the tube, in the manner described in report of case one, or the growths can be taken off with alligator-jawed urethral forceps having a cutting edge. If the urethra is of small calibre it will be well to cut down on the growths and enucleate them with knife or scissors.

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20 WEST OHIO STREET.

The Kansas City Southern Railway has taken a lease on the new three story brick flats erected at 812 to 814 Harrison Street, Kansas City, Mo., which it will remodel and refit as a modern hospital with a capacity for fifty patients. Samuel Ayers, chief surgeon of the K. C. Southern Railroad, will be superintendent, and E. J. Mark, his assistant.

Proceedings of Societies.

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Fifty-third Annual Meeting, held in York, Pa., on September 22nd, 23rd, and 24th.

(Editorial Correspondence. Concluded from p. 611.)

THE SCIENTIFIC SESSIONS.

In our last issue we gave an account of the general proceedings of the society, including the addresses, the entertainments, and the business meetings up to Wednesday afternoon, September 23d. It now remains to give some account of the papers read during the sessions of Wednesday and Thursday, and of the concluding business meetings and entertainments on Thursday. It may be stated that the programme of the scientific sessions was of a very high order, as regards both the status of very many of the contributors and the character of most of the papers read. We only regret that lack of space compels us to omit everything except the titles of several interesting papers, and to confine our abstracts to those papers which attracted the greatest attention and interest.

Owing to the large number of papers to be read, the proceedings were divided into two sections, sitting in court rooms, Nos. 1 and 2, respectively.

Wednesday, September 23rd, Morning Sessions:

SECTION A.

In this section papers were read on Streptococci and Antistreptococcus Serum, by Dr. D. H. BERGEY, of Philadelphia; The Necessity for the More Careful Instruction of Medical Students in the Diagnosis of Preventable Diseases, by Dr. BENJAMIN LEE, of Philadelphia; A Contribution to the Clinical Study of Cerebrospinal Meningitis, by Dr. THOMAS C. ELY and Dr. J. J. SNYDER, of Philadelphia; A Clinical Study of the Galenical Preparation of Digitalis and Its Derivative, Known as Digitalin-Germanic Merck, by Dr. HENRY BEATES, JR., of Philadelphia; Further Remarks on the Use of Orthoform in the Diagnosis of Gastric Ulcer, by Dr. FRANK H. MURDOCK, of Pittsburgh; Typhoid Fever, by Dr. L. B. KLINE, of Catawissa; A Case of Mixed Infection of Typhoid Fever and Pyæmia, by Dr. IRVING R. SCHOONMAKER, of Hallstead. Dr. A. C. WENTZ, of Hanover, also gave a demonstration of various makeshifts which would enable the busy doctor to do some needful bacteriological work of a practical character.

The Effect of an Improved Municipal Water Supply Upon the Prevalence of Enteric Diseases.—Dr. J. FRANK SMALL, of York, in this paper suggested that the water supply in York as supplied by a private corporation, The York Water Company, be compared with that furnished in other and larger cities. A table was appended showing the typhoid curve before and since the installation of the filtration system which demonstrated that the

rate per thousand had regularly diminished. Finally, the results of bacteriological examinations of the water made at various times were given. He believed that an efficient filtration of a municipal water supply had a decided effect in lessening the prevalence of enteric disease.

Aneurysm of the Left Subclavian Artery Treated by Wiring and Electrolysis.—Dr. JUDSON DALAND, of Philadelphia, reported the case of a laborer, aged fifty-two years, who two years ago first noticed a tenderness in the left side of the neck and pain in the left shoulder and arm. Seven days later he observed a pulsating mass in the left side of the neck, which gradually increased in size until, at the time of first examination, April 24, 1903, it was as large as a cannon ball. Examination of heart, lungs, liver, spleen, and urine gave negative results. The diagnosis of aneurysm was made, and the conditions on which this diagnosis was made were given in detail. Twenty feet of gold wire were introduced into the sac through a hollow needle, and a galvanic current, gradually increasing from 1 to 80 milliampères, was employed for about 110 minutes. The pulsation and size of the tumor temporarily decreased; but afterward it increased, and death occurred twenty days after operation. Necropsy showed a coconut-shaped aneurysm involving the left subclavian artery from its origin to the axillary artery. Its cavity was occupied in large part by a clot in varying stages of organization through which the wire was well distributed. Dr. Daland believed that this operation was worthy of trial when medical treatment failed, and that the percentage of success would be greatly increased if the operation was not performed as a *dernier ressort*.

Dr. A. M. ANDERS, of Philadelphia, believed that the cause of local arteriosclerosis was probably due to the increased local tension in the vessels, that tension being due to obstruction caused by aneurysm. While syphilis, rheumatism, and other well recognized factors might produce aneurysm, the fact should not be lost sight of that these conditions caused weakness of the vessel walls, and that then the muscular exercise became the exciting cause of the dilatation. He agreed with Dr. Daland that, both before and after wiring an aneurysm, it was advisable to give the patient absolute rest. This diminished the intraaneurysmal pressure which favored the contraction of the sac, and also decreased the force of the blood stream.

The Dietetic Treatment of Chronic Nephritis.—Dr. J. M. ANDERS, of Philadelphia, presented this paper. He stated that the dietary that failed to meet the requirements of nutrition, plus the loss of albumen, was inadequate. Efforts to lessen the degree of albuminuria at the expense of the quality of the blood and general nutrition were not so much blessings as evils. By means of a proper diet it was possible to postpone, if not at times prevent, the later development of true contracted kidney. It was not possible to formulate a dietary suitable to all individual cases. Indications also varied with the stage of the morbid process. In his experience the long continued restriction of the diet to milk

alone had produced an undue general weakness. In advanced cases of granular kidney, active heart disease was a constant concomitant, and the integrity of the cardiovascular system must be preserved. He expressed the view that clinicians manifested a general tendency to supply the system with an insufficient amount of albuminous aliment in view of the constant systemic drain, and pointed out that the proteids formed the essential basis of all tissues, and that perfect metabolism could not be accomplished without a certain definite quantity of nitrogen. He was of the opinion that red meats showed as good nitrogen excretion as white meats. Fats were allowable, and butter, except in cases of obesity. While milk should be a considerable portion of the diet, meats should be somewhat restricted, while fruits and green vegetables and rice might be given rather freely. He emphasized the fact that the normal physiological quantity of food was required, which was practically: 110 to 130 grammes of albumen, 350 to 400 grammes of carbohydrates, 75 to 110 grammes of fat, 2,500 to 3,000 grammes of water, and 18 to 30 grammes of inorganic salts. The extent to which the given diet contributed to the nutrition and development of bodily strength must be carefully estimated. This was accomplished by noting the effect upon the degree of albuminuria, and also upon the kidney elimination of the normal metabolic products. The importance of carefully recording the bodily weight of the patient was also emphasized, and systematic blood examinations urged.

Dr. THOMAS D. DAVIS, of Pittsburgh, advised giving milk to those patients in a cup instead of in a tumbler; they could not see what was coming, and therefore their minds were not prejudiced against it. The addition of a bit of ice and some vanilla was an advantage.

Recovery from Perforations in Typhoid Fever.

—Dr. JOHN H. MUSSEY, of Philadelphia, in this paper reported a case of typhoid fever seen in a relapse. In the primary attack the patient had pleuropneumonia, on account of which he was extremely prostrated. The temperature was normal on the 29th and 30th of May. On the 31st it began to rise gradually. By the 5th it was 104° F. in the evening. On the morning of the 4th, after a slight chill, it fell to 102° F. The pulse rose to 130 and there was slight abdominal tension. Frequent micturition was marked; pain occurring as soon as there was small accumulation of urine in the bladder. Dr. Mussey saw the patient with Dr. Mueller. The patient was in moderate collapse and the abdomen was distended. There was no rigidity. Pain was complained of at a point half way between the pubis and the umbilicus. The absence of rigidity suggested appendicitis, especially as the bladder symptoms had not abated. The vermiform dipped into the pelvis. Rectal examination showed slight tenderness in the pelvis but no undue fullness. Vomiting took place four or five times during the day. Notwithstanding the indefinite nature of the symptoms it was believed that perforation had taken place. The patient was so desperately ill and had been so very ill from the previous pneumonia, resolution not having fully taken place as yet, that it was deemed unwise to interfere. On the fifth day the temperature was 101° F. in the morning; 104°

in the evening; pulse, rapid, thready, averaging about 118. There was no vomiting. There was slight pain on pressure, but no rigidity. On the 6th, 7th, and 8th the temperature remained between 103° and 104°; pulse 120 to 130. On the 9th the temperature fell to 99°; pulse to 106; respiration to 18. No unusual symptoms prevailed except those of weakness. On the morning of the 10th the temperature was again 104.5° and continued at this point through the day. In the evening it had fallen to 101°. Blood was found in the stools. Repeated discharge of blood throughout the remainder of the night and all the following day showed that a continued hæmorrhage was in progress. Death occurred on the 11th from exhaustion. At the autopsy a small ulcer in the ileum was found to have perforated the bowel and formed adhesions to the bladder. There was very decided localized peritonitis, but no extension to the general peritonæum. The perforation had undoubtedly taken place after which adhesions had formed, preventing the occurrence of the general infection.

Dr. W. J. MIDDLETON, of Steelton, referred to two cases of perforation with recovery.

Dr. E. V. SWING, of West Chester, asked if stercoraceous vomiting were a symptom of perforation in typhoid fever.

Dr. RICHARD HENRY GIBBONS, of Scranton, stated that the proper treatment of typhoid fever would not allow a perforation to occur, and that this was an instance wherein the physician ought to put the surgeon out of business. He considered that no worse disgrace had happened upon surgery or medicine than the fact that a book had been written on typhoid lesions that necessitated the calling in of a surgeon. Where cases were improperly treated perforation took place and operation should be done at once. In these cases if it were possible, operation should be done just before perforation occurred. Dr. Gibbon believed, farther, that "country doctors could give city professors points on the treatment of typhoid fever where perforation would not take place."

Dr. Mussey replied that he did not consider stercoraceous vomiting a symptom of perforation. The case was reported because of the fortunate termination. He thought that if operation was not done the case might as well be given up. He had seen but one case of recovery from perforation (one operated upon by Dr. Rodman), with the exception of this healed case, which recovered in the natural course of the disease.

SECTION B.

X Ray, Light, and High Frequency Electricity was read by Dr. RUSSELL H. BOGGS, of Pittsburgh, in which he considered in detail the various kinds of rays and the methods of their employment, which must be determined by study of the individual case, and remarked the value of the x ray in lupus, epithelioma, carcinoma, rheumatism, rheumatoid arthritis, neuralgia, and tuberculosis.

The Application of the X Ray in the Treatment of Chronic and Malignant Diseases of the Skin and Superficial Tissues was read by Dr. SAMUEL H. HELLER, of Lancaster. He believed that the deleterious results observed were due to improper

technics and reported in detail the results he had secured in carcinoma, epithelioma, lupus, eczema, ivy poisoning, acne, and papillomata.

The Röntgen Ray as a Palliative in the Treatment of Cancer was read by Dr. CHARLES LESTER LEONARD, of Philadelphia, in which he advocated the employment of this method as a postoperative treatment and in inoperable cases. He laid special stress upon the value of perfect technics and credited many of the failures to improper application.

The Röntgen Ray in Therapeutics was read by Dr. MIHRAN K. KASSABIAN, of Philadelphia, in which he discussed at length the cases amenable to treatment, the process following the use of the x ray, and recommended the preservation of careful statistics of all cases treated, exhibiting a sample page of a record book, which he had devised for use at the Philadelphia Hospital for that purpose. This paper will be published later.

These papers were discussed by Dr. G. E. PFAHLER, of Philadelphia, who recommended removal of the growth if possible, prior to the application of the x rays, and reported a case of retrobulbar sarcoma apparently cured after four months' treatment. They were also discussed by Dr. LEWIS H. TAYLOR, of Wilkes-Barre, and in closing, Dr. Leonard referred to the excellent results he had secured in the treatment of neuralgia and neuralgic headaches, as well as of sarcomata of the antrum and tonsil.

Some Problems in Surgical Work was a paper read by Dr. GEORGE D. NUTT, of Williamsport.

Proctocolitis, with Special Reference to Treatment was a paper read by Dr. WILLIAM H. BEACH, of Pittsburgh, in which he carefully considered the symptomatology and treatment of the disease, giving in detail the diet and medication advised, and expressed his belief that surgical relief should be resorted to only in extreme cases.

Dr. JOHN G. CLARK, of Philadelphia, recommended the method of Weir of draining the colon through the appendix.

Wednesday, September 23rd, Afternoon Sessions:

SECTION A.

Papers in this section were read on Pulmonary Phthisis, by Dr. THOMAS J. MAYS, of Philadelphia (see our issue of September 26th, p. 590); The Diagnosis of Pulmonary Tuberculosis, by Dr. CHARLES H. MINER, of Wilkes-Barre; The Prevention of Tuberculosis, by Dr. LAWRENCE F. FLICK, of Philadelphia; The Serum Therapy of Tuberculosis, by Dr. MAZYCK R. RAVENEL, of Philadelphia; Trauma—An Ætiological Factor in Phthisis Pulmonalis, by Dr. W. T. ENGLISH, of Pittsburgh. A discussion on the subject of tuberculosis followed. Other papers were A Report of Four Cases of Malignant Disease of the Lungs, by Dr. J. C. LANGE, of Pittsburgh; A Report of a Case of Elephantiasis and the Hypodermic Use of Camphor and Chloral, by Dr. JAMES I. JOHNSTON, of Pittsburgh. Also the following:

Drugs Useful in Cardiac Affections.—Dr. S. SOLIS COHEN, of Philadelphia, gave a running commentary upon some of the drugs in common use in cardiac affections and upon some of the unusual benefits to be derived therefrom. Refer-

ence was made to his paper of a year ago in which he called attention to other methods than drugs, and he stated that he now desired to say that drugs were the least useful of all remedies employed in lesions of the heart, more benefit being received from exercise, diet, massage (if properly applied), and hydrotherapy (especially baths). Digitalis he regarded as still the drug royal in the case in which it was indicated. The amount of harm, however, done by this drug in cases where it was unnecessary or contraindicated was probably unknown.

Small doses of mercury had been found to be valuable, even in cases in which syphilis did not underlie the condition; also potassium iodide given in very small doses, except where there was direct syphilitic manifestation, the dose not to exceed a grain and a half three times a day. Dr. Cohen's paper will be published later in our columns.

A Fatal Case of Chorea Complicated by Endocarditis, Pericarditis, and Nephritis.—Dr. AUGUST A. ESHNER read a paper by this title. The patient was a girl, ten years old, with a family history of rheumatism and chorea, who presented choreic movements in the upper and in one lower extremity, and later, in the face, together with pain at one wrist joint, as well as blowing systolic murmur at the apex of the heart. The temperature was elevated, the pulse accelerated, and pallor was marked. The urine became turbid and high colored and albumin and tube casts were present. Later, a to-and-fro friction murmur became audible over the body of the heart and at its base. Improvement in the movements occurred under treatment, but a violent exacerbation succeeded upon a fright and symptoms suggestive of uræmia appeared. Improvement again ensued, but in the eighth week death took place, apparently as a result of heart failure due to myocarditis.

SECTION B.

Papers were read on Gynæcological Therapy—A Plea for Operative Conservatism, by Dr. CHARLES F. SPANGLER, of Kane; Three Unusual Vesical Cases, with Operation, by Dr. ELLA B. EVERITT, of Philadelphia; The Obstetric Experience of a Country Physician, by Dr. H. C. MCKINLEY, of Myersdale; Some of the More Infrequent Causes of Obstruction of the Common Bile Duct, by Dr. LEVI J. HAMMOND, of Philadelphia; The Results of the Surgical Treatment of Ascites Occurring in Cirrhosis of the Liver, with Report of a Case, by Dr. HERMAN B. ALLYN, of Philadelphia; Abdominal and Pelvic Surgery Without Ligatures—Electro-Thermic (Heart and Pressure) Hemostasis, by Dr. RICHARD H. GIBBONS, of Scranton. Also the following:

Modern Treatment of Fractures with Special Reference to Lower End of Humerus and Bones of the Leg was read by Dr. HIRAM S. MCCONNELL, of New Brighton (see p. 637).

Surgical Treatment of Recent Fracture of the Patella was read by Dr. EDWARD MARTIN, of Philadelphia, in which he stated all fractures of the patella, in which the fragments are separated more than half an inch, or which are attended by marked

immediate joint tension should be treated by the open method.

These papers were discussed by Dr. RICHARD H. GIBBONS, of Scranton.

Retrodisplacements of the Uterus was read by Dr. J. MONTGOMERY BALDY, of Philadelphia, who said he believed that very few cases of this condition occurred as a primary condition. The author condemned the free use of pessaries and thought that the intraabdominal was the preferable operation for shortening the round ligament.

Dr. E. E. MONTGOMERY, of Philadelphia, felt that Alexander's operation should never be performed as a matter of choice and that ventrofixation and ventrosuspension should only be performed when the patient was past the menopause, and believed the intraabdominal operation devised by Ferguson to be the preferable one.

Dr. RICHARD H. GIBBONS, of Scranton, thought that either the operation devised by Webster, of Chicago, or Edebohls's modification of the Alexander operation were excellent procedures, but the latter was condemned by Dr. Baldy in closing on account of the danger of hernia.

Some Observations on the Pathology and Treatment of Empyema was read by Dr. P. Y. EISENBERG, of Norristown, in which he advocated: 1. Free evacuation of the pus cavity: a. aspiration; b. free incision; c. resection of a rib or ribs; 2. Irrigation of the pus cavity and 3. drainage.

Dr. W. W. KEEN, of Philadelphia, reported a case illustrating the necessity for adequate drainage and the removal of the enormously thickened serous membrane in the chronic cases.

Dr. LOWELL M. GATES, of Scranton, felt that in most of the cases there should be resection of the ribs and drainage by means of drainage tubes, while Dr. RICHARD H. GIBBONS, of Scranton, recommended gauze drainage. Dr. ERNEST LAPLACE, Philadelphia, called attention to the possibility of multiple abscesses and the necessity for accurate diagnosis. Dr. HERMAN B. ALLYN referred to the difficulty of differentiating these cases in which there was bronchial breathing from pneumonia.

Dr. JOHN B. ROBERTS, of Philadelphia, felt that resection of the ribs was in many cases unnecessary and should be determined by the study of the individual case. Dr. G. FRANKLIN BELL, of Newberry, said that the operation should depend upon the bacterial element and the size of the abscess cavity. Dr. GEORGE W. GUTHRIE, of Wilkes-Barre, thought that resection of the ribs was necessary in comparatively few cases and recommended an incision in the most dependent portion of the pleura and the insertion of a double drainage tube. In closing Dr. Eisenberg emphasized the importance of irrigation and drainage.

Thursday, September 24th, Morning Sessions:

SECTION A.

Papers were read on Family Periodic Paralysis, by Dr. G. E. HOLTZAPPLE, of York; Report of a Case of Cerebral Thrombosis with a Skiagraph Showing the Area of Softening, by Dr. C. W. BURR and Dr. C. E. PFAHLER, of Philadelphia; Ocular

Phenomena and Certain of the Reflexes. A Study Based Upon the Examination of a Hundred Normal Men, with a View to Determining Their Range of Variation in Health, by Dr. THEODORE DILLER, of Pittsburgh; The Differential Diagnosis between Friedreich's Disease and Insular Sclerosis, by Dr. F. SAVARY PEARCE, of Philadelphia, (shortly to be published in this Journal); Acute Inflammation of the Middle Ear in Diseases of Children, by Dr. THEODORE J. ELTERICH, of Allegheny; Edebohls's Operation of Decapsulation of the Kidney for the Cure of Chronic Bright's Disease and the Indications for Its Performance, by Dr. JAMES TYSON, of Philadelphia (shortly to be published in this Journal). Also the following:

The Result of One Year's Medical Treatment in Gastropotosis.—This paper was contributed by Dr. J. DUTTON STEELE, and Dr. ALBERT P. FRANCINE, and was read by Dr. Steele. The paper embraced the work of three years in the medical dispensary of the University of Pennsylvania. Thirty cases had been observed for an average period of somewhat over fourteen months, with particular reference to the following points: (1) In what proportion of cases presenting signs of gastric indigestion and in which gastropotosis has been demonstrated are the symptoms due to downward displacement of the stomach? (2) Does long continued mechanical support permanently restore the stomach to its normal position? (3) What is the prognosis of the condition? The answer to the first question was that in about one fifth of the cases no cause could be found for the anacidity and symptoms of gastric indigestion and fermentation, except gastropotosis. All these patients improved greatly, and were now practically free from symptoms. The treatment was regulation of the diet, mechanical support, with occasional doses of hydrochloric acid and lavage at intervals. In the other four fifths of the cases symptoms of gastric disorder could be distinctly traced to neurasthenia, gastric motor insufficiency and dilatation, chronic constipation, or passive congestion of the stomach. It was considered that gastropotosis in these cases was probably a link in the vicious circle.

The second question was answered in the negative. In all the cases examined after a year of constant mechanical support the stomach was in exactly the same position as when first examined.

In the third consideration, in those cases in which the gastric symptoms were caused by uncomplicated downward displacement of the stomach the results had been very gratifying. The fight was to be a long one, but all the patients of this character were practically free from symptoms after one year. In the remaining four fifths the prognosis depended upon the dominating factor in the patient's condition, and, of course, varied with each case.

SECTION B.

Papers were read on Four Cases of Penetrating Wound of the Orbit, by Dr. ALEXANDER R. CRAIG, of Columbia; A Sarcoma of the Maxillary Antrum and Orbit, by Dr. J. F. KLINEINST, of York; Statistics Relating to 1,135 Cases of Re-

fraction Occurring in Private Practice, by Dr. M. V. BALL, of Warren (discussed by Dr. B. A. RANDALL and Dr. S. D. RISLEY, of Philadelphia, and Dr. J. C. McALLISTER, of Ridgway); Concerning Certain Cases of Asthenopia and Eyestrain which are Independent of Refractive Error and Muscular Imbalance, by Dr. GEORGE E. DE SCHWEINITZ, of Philadelphia (by title); The Differential Diagnosis of Exophthalmos, by Dr. JOSEPH E. WILLETS, of Pittsburgh; The Use of Myelocene in Catarrhal Deafness, by Dr. WALTER B. WEIDLER, of Lancaster; The Factor of Heredity in Atrophic Rhinitis, by Dr. LEWIS S. SOMERS, of Philadelphia (by title); The Upper Respiratory Tract, by Dr. J. C. McALLISTER, of Ridgeway (discussed by Dr. B. ALEXANDER RANDALL, and Dr. SAMUEL D. RISLEY, of Philadelphia, and Dr. J. F. KLINEDINST, of York); The Syphilitic Nose and Throat, by Dr. CHARLES P. GRAYSON, of Philadelphia (discussed by Dr. B. ALEXANDER RANDALL, of Philadelphia). The following were also read:

The Treatment of Suppurating Ulcers of the Cornea, by Dr. LEWIS H. TAYLOR, of Wilkes-Barre, was read by Dr. Ernest U. Buckman, of Wilkes-Barre. In this paper the author urged the importance of prompt attention to all wounds of the cornea, and, when they showed a tendency to virulent suppuration, the application of the galvanic cautery.

Dr. B. ALEXANDER RANDALL, of Philadelphia, spoke with favor of the method employed by Lippincott of cauterizing the cornea with hot water, and preferred eserine to either cocaine or atropine.

Dr. W. H. DUDLEY thought that the method of Lamb, of New York, of circumscribing the area of the ulcer and thus preventing its extension, was more efficient than trying to destroy it.

Dr. JOSEPH E. WILLETS, of Pittsburgh, considered the galvanic cautery a most valuable method.

Affections of the Eye Associated with Diseases of the Contiguous Sinuses was read by Dr. SAMUEL D. RISLEY, of Philadelphia, who reported several cases illustrative of the importance of careful attention to this factor.

The Operative Treatment of Strabismus was read by Dr. WENDELL REBER, of Philadelphia, in which he discussed at length the indications for operation and the various modes of procedure. This paper was discussed by Dr. M. V. BALL, Dr. WARREN, and Dr. J. C. McALLISTER.

Danger Signals of Intracranial Infection from the Pneumatic Cavities of the Ear and Nose was read by Dr. B. ALEXANDER RANDALL, of Philadelphia. The author illustrated his paper with diagrams and outlined the various sources through which infection might take place. The paper was discussed by Dr. S. D. RISLEY and Dr. WENDELL REBER, of Philadelphia.

Thursday, September 24th, Afternoon Session:

Papers were read on Some of the More Unusual Results of Movable Kidney, by Dr. CHARLES P. NOBLE, of Philadelphia (discussion by Dr. GEORGE ERETY SHOEMAKER, and Dr. S. SOLIS COHEN, of Philadelphia, and Dr. RICHARD H. GIBBONS, of Scranton. This paper will shortly be published in our columns); The Surgical

Treatment of Facial Palsy, by Dr. CHARLES H. FRAZIER, of Philadelphia; Differences in the Management of Appendicitis and Salpingitis, by Dr. GEORGE ERETY SHOEMAKER, of Philadelphia (shortly to be published in our columns); Left-Sided Appendicitis (by title), by Dr. EDMUND W. HOLMES, of Philadelphia (shortly to be published in our columns); The Treatment of Suppurative Appendicitis, by Dr. ERNEST LAPLACE, of Philadelphia, in which he outlined the developmental process of the fatal stage of this condition, and emphasized the importance of evacuation, prolonged irrigation, and thorough drainage. (The last two papers were discussed by Dr. RICHARD H. GIBBONS, of Scranton; JOHN C. O'DAY, of Oil City; Dr. F. W. COOVER, of Harrisburg, and the discussion was closed by Dr. DEEVER, Dr. SHOEMAKER, Dr. GUTHRIE, and Dr. LAPLACE.) Rupture of Internal Viscera Resulting from Concussion and Usually without External Signs of Injury (by title), by Dr. W. G. WEAVER, of Wilkes-Barre; Perforating Gastric and Duodenal Ulcers, with Report of Three Cases Operated Upon, by Dr. JOHN H. GIBBON, of Philadelphia; Extensive Decapsulation Combined with Fixation of Every Movable Kidney to Prevent Bright's Disease—Complete Decapsulation for the Cure of Bright's Disease and for the Relief and Prevention of Puerperal Convulsions, was the point urged by Dr. RICHARD H. GIBBONS, of Scranton. The paper was discussed by Dr. RAMON GUITERAS, of New York.

Also the following:

The Treatment of Puerperal Sepsis was read by Dr. E. E. MONTGOMERY, of Philadelphia, in which he emphasized the importance of differentiating between germicidal infection and the results of putrid intoxication and outlined the course of treatment appropriate to each. This paper was discussed by Dr. D. H. BERGEY, of Philadelphia.

One Year's Work in Appendicitis was read by Dr. JOHN B. DEEVER, of Philadelphia, who reported 566 cases operated upon between September 1, 1902, and September 1, 1903, with a mortality of 5 per cent. He divided the cases into three classes: (1) Those suffering from diffused peritonitis, in which 16 were operated on, with five deaths, or 31 per cent.; (2) Those in which there was a localized abscess, number 183 cases, with 22 deaths, or 12 per cent. mortality; and (3) Those in which the disease was confined to the appendix, number 367 with 3 deaths, or 0.8 per cent. mortality. In conclusion he urged the necessity for early operation.

The Management of Pus Appendix was read by Dr. GEORGE W. GUTHRIE, Wilkes-Barre, in which he stated that out of the 122 cases operated on in the Wilkes-Barre City Hospital during the years 1901 and 1902, 62 were pus cases. He recommended the removal of the appendix, thorough cleansing of the cavity, and free drainage.

The Value of the Differential and Absolute Leucocyte Count in Cases Simulating Appendicitis was read by Dr. A. BARR SNIVELY, of Waynesboro, in which he enumerated the conditions that were likely to conflict, and portrayed the results of the leucocyte counts in each by the reports of a number of cases.

BUSINESS SESSIONS.

Thursday, September 24th.

At the meeting of Thursday the society took up once more the subject of the school physiologies and discussed the report of the committee in a lively debate, which resulted in the deposition of the old committee and the appointment of a new one. This action appeared to be due, not so much to an impeachment of the substantial accuracy of the first committee's report, as to a feeling that that portion of it which specifically censured the Woman's Christian Temperance Union was to be deprecated, especially in view of the excellent work undoubtedly done by that organization, and to the fact that the committee had allowed its report to leak out in the lay press. Many members who objected to the inaccuracies and defects in the school physiologies were led by these considerations to join in the opposition to the report and to the committee from which it emanated, with the result that a motion to continue the committee on school text-books for another year, but by a fresh committee to be appointed by the incoming president, was carried, and the following members were appointed to serve on the new committee: Dr. S. Solis-Cohen, of Philadelphia; Dr. D. M. McMasters, of Ridley Park; Dr. E. M. Green, of Easton; Dr. A. B. Brumbaugh, of Huntingdon; and Dr. J. W. Ellenberger, of Harrisburg.

Dr. Stevens tendered his resignation of the secretaryship, on the ground of the enormous strain and labor involved, and incidentally it became known that more than the entire salary of \$300 was used up in expenses. Dr. Stevens's work was, however, greatly eulogized, and he was so earnestly asked to continue to render his personal services, that he finally consented. A vote of thanks was passed, and a recommendation made to the trustees that the salary be raised to \$600 a year.

Among other important business, the work of Dr. McCormack bore fruit in a request by the Executive Council that the Board of Trustees enter into communication with the American Medical Association and the New York State Medical Association, with a view to the establishment of a trustworthy directory of legalized medical practitioners for the State of Pennsylvania. Dr. McCormack had previously explained in detail a plan now largely adopted under the auspices of the American Medical Association whereby an accurate track can be kept of the location, status, and antecedents of all medical practitioners. This method, which is effected by means of a very complete, yet very simple, card index system, devised by Dr. McCormack and Dr. George R. Simmons, of Chicago, would not only, from its accuracy, give more accurate information and facilitate communication, but would be of material assistance to the county medical societies in preventing the licensing of improper persons, and in driving out advertising, itinerant, and other quacks from the State.

The orators for the next meeting, at Pittsburgh, were announced by the President as follows: Medicine, Dr. Henry Beates, Jr., of Phila-

delphia; surgery, no appointment; obstetrics, Dr. H. C. Werder, of Pittsburgh; neurology, Dr. William K. Walker, of Dixmont; hygiene, Dr. A. C. Albert, of Philadelphia; laryngology, Dr. D. W. Meurs, of Scranton.

Other subjects considered had reference to the suspension of a practitioner for unprofessional conduct; a recommendation to the American Medical Association for incorporation; proper registration by the local medical societies; the appointment of delegates to the International Congress of Tuberculosis, which meets at Washington in April, 1905; medical legislation; and the appointment of standing committees, as follows:

Committee on Scientific Business.—Dr. T. B. Appel, of Lancaster; Dr. Jay F. Schanberg, of Philadelphia; Dr. W. M. Welch, of Philadelphia; Dr. Cyrus Lee Stevens, of Athens; Dr. Adolph Koenig, of Pittsburgh; and Dr. I. C. Gable, of York. *Committee on Publication.*—Dr. Adolph Koenig, of Pittsburgh; Dr. Augustus A. Eshner, of Philadelphia; Dr. J. C. Burt; Dr. Hildegard H. Longsdorf, of Carlisle; Dr. Charles H. Miner, of Wilkes-Barre; Dr. Jefferson H. Wilson, of Beaver; Dr. C. L. Stevens, of Athens; Dr. G. W. Wagoner, of Johnstown. *Auditing Committee.*—Dr. E. B. Heckel, of Allegheny; Dr. A. R. Craig, of Columbia; Dr. C. Sumner Musser, of Aaronsburg; Dr. H. A. Have, of Philadelphia; Dr. T. P. Simpson, of Beaver Falls. *Committee on Pharmacy.*—Dr. Claude R. Grosser, of Wilkes-Barre; Dr. J. C. Dunn, of Pittsburgh; Dr. J. B. Lowman, of Johnstown; Dr. Wesley F. Kunkle, of Williamsport; Dr. Samuel Wolfe, of Philadelphia. *Committee on Legal Matters.*—Dr. H. Beates, Jr., of Philadelphia; Dr. W. D. Hamaker, of Headville; Dr. H. S. McConnell, of New Brighton; Dr. W. G. Weaver, of Wilkes-Barre. *Committee on Archives.*—Dr. John H. Musser, of Philadelphia; Dr. A. V. J. Kelly, of Philadelphia; Dr. C. L. Stevens, of Athens. The following appointments were also made: Dr. A. R. Craig, Dr. S. D. Risley, and Dr. E. B. Heckel, to investigate eye and ear conditions in public schools; Dr. A. R. Craig, Dr. T. D. Davis, and Dr. W. Lathrop, Committee on Credentials; and Dr. W. B. Lowman, Dr. A. R. Craig, Dr. J. B. Roberts, Dr. A. Koenig, and Dr. C. L. Stevens, for Revision of the By-Laws.

At the afternoon session the incoming officers were installed and a vote of thanks was given to retiring officers. A resolution was also adopted to the effect that the present meeting had been an exceptionally profitable and pleasant one, and according a vote of thanks to all who had contributed to the entertainment, and especially to the York County Medical Society (which bore the expense of the entertainments without any call upon the State society); the Committee of Arrangements; the Local Ladies' Committee; the York Water Company, and others.

ENTERTAINMENTS (Thursday and Friday).

A garden party was given, at which upward of fifty of the visiting ladies were present, at the house of Mr. W. L. Glatfelter, at Spring Grove. The guests were received by Mrs. I. C. Gable, Mrs. W. F. Weiser, and Miss Glatfelter.

In the evening there was an automobile parade, in which upward of twenty vehicles were employed to take the members and visiting ladies and guests for a drive round the town, leaving

them at Penn Park, where a concert was given, the park being illuminated for the occasion.

On Friday the members of the association, guests, and visiting ladies were taken by the York County Medical Society by train to Gettysburg, where they spent the day on that historic spot, now peaceful and prosperous, and showing no trace, save grave stones and monuments, of one of the bloodiest conflicts in the history of the world. The Medical and Chirurgical Faculty of Maryland, which was meeting at the same time at Blue Mountain, took occasion also to visit the hallowed ground on that day.

It is generally conceded that the meeting of 1903 was a highly successful one, in regard to the high character of the scientific work, the business transacted, the entertainment provided, and the attendance, which, by the end of the meeting, reached a total of 355.

KENNETH W. MILLICAN.

Therapeutical Notes.

Treatment of Lichen Pilaris.—In mild cases, says *Journal de médecine de Paris* for August 16th, the horny excrescences may be softened with salicylated soap and then removed by friction with marble dust or pumice stone. For the slight inflammation, Leistikow prescribes resorcinated zinc in a paste of 3 to 100, or the following powder:

R Precipitated sulphur }
Filler's earth } of each..... 5 grammes
Venetian tale } (75 grains).

M. Apply as required.

Saalfelt recommends ointments of sulphur, of naphthol, chrysophanic acid, or one of the following:

R Precipitated sulphur.....15 grammes (225 grains);
Soft soap } of each..... 5 grammes (1 ounce);
Lard }
Prepared pumice stone, 10 grammes (1 drachm).

M. For lichen pilaris.

R Lanolin }
Lard } of each...50 grammes (12½ drachms);
Soft soap }
Naphthol15 grammes (225 grains);
White chalk.....10 grammes (150 grains).

M. Use at night.

Bracq advises ointments of salicylic acid, or pyrogallie, salicylated, or resorcinated plasters. The following is a favorite with many:

R Neutral starch glycerite 100 grammes (3½ ounces);
Tartaric acid.....5 grammes (75 grains).

M. For a lotion.

Internally arsenic is indicated, especially in the form of disodium methylarsenate.

For Furunculosis.—The time honored custom of purging the patient is of value, according to *Journal de praticiens* for August 22d. Give mineral water before breakfast for three or four days, then substitute yeast, a teaspoonful in a glass of water before each meal for a week. Institute a severe dietetic regimen, forbidding wine, liquor, and pork, and give cod liver oil, iron, and arsenic,

if the patient be too weak to eat his food, digestion. The boil may be absorbed by pasting with iodine or by the application of camphorated alcohol on a saturated cotton, Brown advises painting with the following:

R Tincture of iodine }
Tincture of arsenic } of each..... 10 grammes
Camphorated alcohol }

M. For a lotion.

Gallois advises a solution of iodine in acetone.

R Mercuric iodine..... 4 grammes (1 drachm);
Alcohol..... 10 grammes (1 ounce).

M. Lotion; use with caution.

If the boil is not suppurating, one application of the foregoing will extinguish it in twenty-four hours; it is very caustic.

If the boil is very small, the treatment will cure it.

R Glycerine..... 10 grammes (1 ounce);
Collodion.....10 grammes (2½ drachms).

M. Lotion.

If the boil be large or advanced, however, collodion should not be used, as it is a culture medium.

For obstinate and painful boils, poultices of starch, with camphorated alcohol or boric acid, give great relief. The neighbouring tissues should be protected from infection by borated vasoline.

For boils of the external ear, Lawsonberg's saturated solution of lactic acid in glycerol may be used three daily, in the meantime, cotton remaining in the ear, wet with:

R Menthol.....2 grammes (30 grains);
Glycerol..... 10 grammes (2½ drachms).

M. For local application.

For Cardiovascular Spasm.—*Practitioner* for September 5th advises:

R Syrup of orange flower.....50 grammes (1½ ounces);
Saturated chloroform water..... 10 grammes
(3¼ ounces);

M. Three tablespoonfuls daily.

For Hebra's Prurigo.—Dr. Bourmann, according to *Revue médicale de Suisse* for September 14th, recommends:

R Camphor..... 10 parts;
Tar.....15 parts;
Sulphur..... 5 parts;
Oil of chaulmoogra..... 3 parts;
Vaseline.....62 parts.

M. For an ointment.

For the Itch.—The *Revue*, quoted by *Revue médicale de Suisse* for September 14th, advises:

R Camphor..... 10 grammes (1½ ounces);
Flower of sulphur..... 10 grammes (1½ ounces);
Potassium carbonate.....30 grammes (1 ounce);
Essence of mint..... 10 grammes (1½ ounces);
Essence of lavender } of each.....10 grammes
(22½ minims).

M. For an ointment.

For Acute Eczema.—*Revue médicale de Suisse* for September 14th, says the formula for Hebra's pills, used in acute eczema, is:

R Quinine hydrochloride 5 centigrammes (½ grain);
Extract of belladonna..... 1 to 2 milligrammes
(¼ to ½ grain);

Extract of gentian..... 5 centigrammes (½ grain);
Lactose..... 10 grammes (1 ounce);

M. For one pill.

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HAZING.

We have no patience with the brutes who in our colleges and at West Point and Annapolis delight in torturing students younger than themselves. It is an unmanly and cowardly business, one that doubtless often gives rise to serious illness and occasionally even to death itself. Such a more or less fair contest as a cane rush is dangerous enough, but it has not the element of contemptibility that attaches to hazing. Some of the newspapers have been telling us of barbarous treatment of Yale freshmen by the sophomores, intimating that in more than one instance illness of no trivial nature was the consequence. We appreciate the difficulty of suppressing the practice of hazing, which we do not doubt is repugnant to the members of school faculties. That they generally do their best to do away with the revolting custom, we do not question, but the boys elude them with great skill. The parents of boys who are injured or made sick appreciate for the most part the judiciousness of silence, for any other course is tolerably sure to prove an incentive to continued persecution.

Even girls occasionally take part in an unfeminine encounter. We are told that in a medical college of Ohio they recently assisted the sophomores in their warfare upon the freshmen. In a particular instance it is said that a freshman attacked a girl—the school is conducted on the coeducation plan. Fortunately, other girls came to her assistance and the unchivalrous freshman was overpowered. Vic-

tory rested with the sophomores, and they have been gallant enough, so it is reported, to acknowledge that without the girls' help they would probably not have succeeded in downing the freshmen. But what laurels are these for the girls to hand down to their descendants!

Some Columbia hazers lately got their deserts in some small measure. At least, we have heard no dissent from this view of the matter. A party of sophomores had caught and bound a number of freshmen with the intention, as they said, of roasting the freshmen on a bonfire which they had prepared. We do not suppose that the freshmen were terrified by the threat, but the situation was at least humiliating for them. Some fool sent in a fire alarm, and a fire company, whose engine house is near by, came thundering with their machine to the scene of action. Now, that engine company had several times before been deceived in the same way, and the men were indignant. The story is that they set the engine in operation and drenched every student concerned in the transaction, the victims as well as their tormentors. Another account states that the students scampered away in time to escape the drenching, but we hope that the first story is true.

AKATAMA.

It seems that this is the native West Central African name for a disease which Dr. Frederick Creighton Wellman (*Journal of Tropical Medicine*, September 1st) defines as "an endemic peripheral neuritis of obscure origin, characterized by numbness and intense prickling and burning sensations in the presence of cold or damp, which are temporarily relieved by the application of dry heat." The word akatama, he says, is meaningless. The district in which the disease prevails is a plateau from 5,000 to 6,000 feet about the level of the sea, situated between the thirteenth and fourteenth parallels of south latitude.

Besides the symptoms mentioned, there is erythema, particularly noticeable in light-colored natives, often with some swelling, but unfitness for work without being warmed up is apparently the most notable feature. "An otherwise good porter," says Dr. Wellman, "would rather receive a beating than start out with akatama before the sun is high. He hangs over the fire mornings and evenings and

on rainy days." Akatama affects from three to five per cent. of the population, being found oftener in men than in women, oftener in the young and middle-aged than in the old, and not at all in children or Europeans.

In ætiological examinations of thirteen cases, the ring form of the malignant tertian plasmodium was found in the blood in four cases and *Filaria perstans* in one case; *Ascaris lumbricoides* was detected in the fæces in six cases, *Ankylostoma duodenale* in two cases, and a tænia in one case; and albumin appeared in the urine in one case and *Bilharzia hæmatobia* in one. Five of the patients were free from all the parasites mentioned, and the author thinks that the group fairly represented the general population in this respect, so that these parasites probably have no ætiological significance as regards this disease.

Dr. Wellman thinks that the affection is a true neuritis, though he has failed to find neuromata or any connective tissue change. He remarks that, while there are found during the exacerbations of pain, etc., some swelling, erythema, and in severe cases slight œdema, which may persist for a little while after the spasm has passed, neither gross examination nor microscopical inspection of the skin reveals the changes characteristic of neuritis; but he suggests that further work with the microscope may show organic changes that he has failed to discover. Obviously the disease calls for more extensive observation.

FURTHER INFORMATION CONCERNING THE AFRICAN SLEEPING SICKNESS.

In the first number of the *Reports of the Sleeping Sickness Commission* the Royal Society has recently published contributions entitled Presence of Trypanosoma in Sleeping Sickness, by Dr. Aldo Castellani, and Progress Report on Sleeping Sickness in Uganda, by Lieutenant Colonel David Bruce, F.R.S., R. A. M. C., and Dr. David Nabarro. Dr. Castellani's article deals largely with the presence of a trypanosoma in the cerebrospinal fluid. His first recognition of it in that fluid was a surprise to him. Since then he has discovered it in a number of instances. As the parasites are not present in large numbers, he says, in order to find them it is necessary to draw off at least 15 c.c. of the cerebrospinal

fluid, and he thinks it is well to reject the first few c.c., as they are apt to contain blood. When the fluid comes away clear, 10 c.c. are collected and centrifuged for fifteen minutes. Then there is found at the bottom of the tube a slight deposit of whitish sediment, and in some cases also a minute trace of blood. The supernatant liquid is poured off and the sediment examined under a low power. The parasites are at first fairly active and are therefore easily detected.

The trypanosoma was found in twenty-one out of thirty-four cases. In one of these cases it was found in the blood also, and in another in the fluid taken from the lateral ventricle of the brain after death. Dr. Castellani names the parasite found by him *Trypanosoma ugandense*, after the country in which he first found it, but the fame of his discovery has led Kruse to name it *Trypanosoma Castellani*, and this will probably be established as its designation. Dr. Castellani is not dogmatic regarding the ætiological importance of the parasite, but he suggests as a working hypothesis that sleeping sickness is due to the species of trypanosoma that he has found in the cerebrospinal fluid, but thinks that, at least in the last stages, there is a concomitant streptococcus infection that plays a certain part in the course of the disease.

Bruce and Nabarro found the trypanosoma present in the cerebrospinal fluid in every one of forty cases examined by them. They remark that, while the cerebrospinal fluid in sleeping sickness differs but slightly from that found in healthy persons, it usually has a slight tinge of yellow due to the presence of a few red blood corpuscles, and also contains in suspension more than the usual number of cellular elements, mostly leucocytes. They found the trypanosoma in the blood also, but to find it readily they had to centrifuge the blood three or four times. They raise the interesting question of whether or not there is any connection between the sleeping sickness, which is invariably fatal, and the trypanosome fever, which affects white persons and "appears to cause little or no inconvenience." They note certain physical differences between the trypanosoma of sleeping sickness and that of trypanosome fever. They find that the area of the prevalence of sleeping sickness corresponds rather accurately to the distribution of the tsetse fly, and the

inference that that insect carries the trypanosoma is almost unavoidable.

GELATIN IN THE TREATMENT OF INFANTILE DIARRHŒA.

For about a year past, according to Dr. R. Romme (*Presse médicale*, September 5th), gelatin has been quite extensively employed by some of the Lyons physicians, notably M. Weill, M. Lumière, and M. Péhu, in the treatment of the diarrhœa of children. It has been found very useful in diarrhœas not dependent on infection, even those accompanied with moderate fever, reducing the number of evacuations, giving consistence to the liquid stools, and doing away with the greenish color. And these effects are often if not invariably accompanied by an amelioration of the general condition. If there is any elevation of temperature, it is reduced, and the child's general appearance is improved.

The *modus operandi* is far from obvious. Gelatin, as M. Romme remarks, is a favorite culture medium for bacteria; consequently it can hardly act as a bactericide. Though in laboratory experiments cow's milk in the presence of gelatin coagulates in fine floccules, the state of things is quite different in the nursling's stomach, for there the coagulation is in large masses. Weill, Lumière, and Péhu have observed that gelatin, given simultaneously with certain purgatives or an hour or so before their administration, interferes with their action, but, given after them, has no such effect. From this they conjecture that the action of gelatin is mechanical, that it envelops the particles of medicament, preventing their contact with the intestinal mucous membrane. But they are not tenacious of this explanation.

The gelatin, which may be either bleached or unbleached, should be as pure as possible. A ten per cent. solution in boiled water is made, and this solution is carefully filtered and kept in a thermostat at 248° F. for half an hour. Then, without having been allowed to cool completely, it is poured into test tubes of a capacity of two fluid drachms and a half each. The contents of one of these tubes are added to the milk in the nursing bottle, the tube being previously warmed over a water bath. In this way fifteen grains of gelatin are given at each feeding, and the amount administered daily is from a drachm and a half to two drachms, but double these quan-

ties may be given daily without causing any trouble. The infant readily accepts the gelatin, and, even in large doses, it has no toxic action. However, it is recommended that three tubes a day be used at first, gradually increasing the amount. Apparently we have in this use of gelatin a substantial enlargement of its sphere of therapeutical application.

A PROFESSORSHIP OF THE HISTORY OF MEDICINE IN THE UNITED STATES.

The medical world has during the past few years been waking up to the value of the study of the history of medicine. Much has been done informally in this country, as elsewhere, to arouse an active interest among the profession in this subject, but up to the present there has not, we believe, even been a regular professorship of the history of medicine in any university of the United States, though a few such chairs do exist in Europe. The University of Maryland has taken the lead in this matter by the creation of such a chair, the first incumbent of which is Dr. Eugene F. Cordell, of Baltimore. Dr. Cordell has published in the *Johns Hopkins Hospital Bulletin* an exceedingly interesting contribution on the Doctors and Medicine of Horace, and recently, we understand, a similar essay with Juvenal as the special subject of research.

QUIS CUSTODIET CUSTODES?

The Chicago Board of Health has for some time turned off the water in the school buildings in that city to avoid the possibility of its being drunk by the children, and has advised each child to bring a supply of drinking water, properly boiled, fully explaining to teachers and parents the danger incurred in swallowing the excellent culture medium afforded by the Chicago River. In one school it appears that only thirty children out of one thousand provided themselves with the boiled fluid. At a recent meeting of the teachers, we read with some amazement, one young woman protested against the ruling of the board of health and excitedly demanded to know "why 970 children should go thirsty, because thirty had the boiled water habit?" We can understand the failure on the part of the parents of the children to comprehend the motives of the board, a great majority being foreign born and only recently landed; but that a teacher should stultify herself in the manner stated gives food for reflection. The teachers are supposed to have been carefully trained in the elementary principles of physiology and hygiene; and when we read further that the outburst of unscientific sentimentality was

received with laughter and applause by the pedagogical audience, we must wonder upon what kind of soil modern culture is falling. But then we have frequently expressed our opinion of the kind of physiology teaching prevalent in our public schools.

THE CLINICAL THERMOMETER IN POESY.
Truly it is given to the poet to find "tongues in trees, books in the running brooks"—and poems in fever charts. One of the newly published poems of Rudyard Kipling, *The Parting of the Columns*,¹ deals with the farewells of the soldiers who had fought side by side in the Boer war.

There isn't much we 'aven't shared since Kruger cut an
run,
The same old work, the same old skoff, the same old dust
and sun;
The same old chance that laid us out, or winked an' let us
through;
The same old Life, the same old Death. Good-bye—good
luck to you!

Our blood 'as truly mixed with yours—all down the Red
Cross train,
We've but the same thermometer in Bloemingtontyphoidtein.
We've 'ad the same old temp'rature—the same relapses, too,
The same old saw-backed fever chart. Good-bye—good
luck to you!

THE NEED OF CLEANLINESS AMONG SCHOOL CHILDREN.

The energetic and public-spirited commissioner of health of Chicago, Dr. Arthur R. Reynolds, in his *Bulletin* for the week ending September 5th, rightly dwells, apropos of the reassembling of the school children, on the necessity of inculcating cleanliness among them, lest infectious disease should be communicated on a large scale. In particular, he emphasizes the need of attention to cleanliness in the matter of the oral and nasal secretions, which often harbor the germs of disease.

DR. FLINT'S COLLECTED WRITINGS.
Two handsome volumes of 465 and 518 pages respectively, being the collected writings of Austin Flint, M. D., LL. D. (exclusive of the *Physiology of Man*, the *Manual of Chemical Examination of the Urine in Disease*, the *Textbook of Human Physiology*, and certain writings "relating to professional controversies which happily have long since disappeared"), have recently been issued by D. Appleton & Co. A goodly portion of the contents of these volumes, we are proud to say, was first published in this journal, and we hope that for many years to come it will be our good fortune to

¹ From *The Five Nations*. Outward Bound Edition. Charles Scribner's Sons, publishers. Copyright, 1903.

lay Dr. Flint's ideas before our readers. An excellent portrait of the author serves as a frontispiece to the work: We hope that in the future medical writers of note will oftener collect their productions in book form. The collection now under consideration will prove of interest to everybody who has at heart the progress of medical science in our country. Naturally, the articles embodied in it relate largely to physiology.

News Items

Society Meetings for the Coming Week:

- MONDAY, October 5th.—New York Academy of Sciences (Section in Biology); German Medical Society of the City of New York; Morrisania Medical Society, New York (private); Brooklyn Anatomical and Surgical Society (private); Corning, N. Y., Academy of Medicine; Utica, N. Y., Medical Library Association; Boston Society for Medical Observation; St. Albans, Vt., Medical Association; Providence, R. I., Medical Association; Hartford, Conn., Medical Society; South Pittsburgh, Pa., Medical Society; Chicago Medical Society.
- TUESDAY, October 6th.—New York Neurological Society; Buffalo Academy of Medicine (Section in Surgery); Elmira, N. Y., Academy of Medicine; Ogdensburg, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Hudson, N. J., County Medical Society (Jersey City); Androscoggin, Me., County Medical Association (Lewiston); Baltimore Academy of Medicine; Medical Society of the University of Maryland (Baltimore).
- WEDNESDAY, October 7th.—New York Academy of Medicine (Section in Public Health); Society of Alumni of Bellevue Hospital; Harlem Medical Association of the City of New York; New York Genitourinary Society; Medical Microscopical Society of Brooklyn; Medical Society of the County of Richmond, N. Y. (New Brighton); Penobscot, Me., County Medical Society (Bangor); Bridgeport, Conn., Medical Association.
- THURSDAY, October 8th.—New York Academy of Medicine (Section in Pædiatrics); New York Academy of Medicine (Section in Otology); Society of Medical Jurisprudence and State Medicine, New York; Brooklyn Pathological Society; Medical Society of the County of Cayuga, N. Y.; South Boston, Mass., Medical Club (private); Pathological Society of Philadelphia; Church Hill Medical Society of Richmond, Va.
- FRIDAY, October 9th.—New York Academy of Medicine (Section in Neurology); Yorkville Medical Association, New York (private); Brooklyn Dermatological and Genitourinary Society (private); German Medical Society of Brooklyn; Medical Society of the Town of Saugerties, N. Y. (Anniversary).
- SATURDAY, October 10th.—Obstetrical Society of Boston (private).

Change of Address.—Dr. Mary D. Rushmore, to 231 East Twenty-first Street.

NEW YORK, CITY AND STATE.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of cases and deaths reported for the two weeks ending September 26, 1903:

DISEASES.	Week end'g Sept. 26.		Week end'g Sept. 19.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	69	5	62	3
Diphtheria and group	249	30	182	28
Scarlet fever	68	4	88	6
Smallpox	0	0	1	0
Chickenpox	23	0	12	0
Tuberculosis	264	139	301	122
Typhoid fever	118	12	102	16
Cerebro-spinal meningitis	0	5	0	4
TOTALS	791	195	748	174

The Seney Methodist Episcopal Hospital, of Brooklyn, has received a bequest of \$50,000 from the late Cornelia Prosser, of Cleveland, O.

The Hospital of the Good Shepherd, at Syracuse, has appointed Dr. B. A. White, of Montezuma, N. Y., superintendent in place of Miss Lina Lightbourn, resigned.

The New State Hospital for the Insane will probably be located at Cambridge, the Lindsay commission having reported favorably on the Checkered House site in that village.

New Hospital at Utica.—The corner stone of the new St. Luke's home and hospital on Whitesboro Street, Utica, was laid on the eve of St. Luke's day, September 17th, by Bishop Olmsted.

The Prospective Medical Reunion in New York.—We are informed by Dr. Frederick Holme Wiggin that the New York State Medical Association has received a communication from the Medical Society of the State of New York, and that a special meeting of the council and fellows of the State Medical Association has been called at the Academy of Medicine, at 2 p. m., Thursday, October 1st, to consider this communication.

Another Swindler of the Profession.—We are advised by Dr. Irving Townsend, of 62 West Fifty-first Street, that a man about forty years of age, clean shaven, and with a look of one who has striven against adversity, is falsely representing himself as an agent for *Life*. He offers a subscription to medical men for \$3.00 per annum, and gives an official looking receipt. The publishers of the paper in question have no such agent.

Central New York Medical Association.—The Medical Association of Central New York met on September 17th at Auburn. The counties represented in the association are Allegany, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Erie, Genesee, Livingston, Madison, Monroe, Niagara, Onondaga, Ontario, Orleans, Oswego, Seneca, Wayne, Wyoming, and Yates. The officers for the present year are: Dr. John L. Heppron, of Syracuse, President; Dr. Charles A. Vanderbeek, of Rochester, first vice-president; Dr. M. L. Bennett, of Watkins, second vice-president; Dr. C. A. Greenleaf, of Rochester, secretary, and Dr. William M. Brown, of Rochester, treasurer.

Unique Gift to Columbia from a Physician.—Dr. Saram R. Ellison, of 118 West One Hundred and Third Street, has arranged to bequeath his remarkable library of works on magic to the library of Columbia University. The collection consists of some twelve hundred books relating to every phase of black and white magic, from the superstitious performances of necromancers of the middle ages to the latest scientific marvels of Maskelyne and Kellar. Several scrapbooks in the collection are made up of clippings from magazines revealing magical secrets that have not been published elsewhere. Dr. Ellison has received assurances from the college librarian that the collection will not be broken up, but will be placed on the shelves in its integrity.

The College of Physicians and Surgeons, the medical department of Columbia University, opened on September 24th in Vanderbilt Hall, at Fifty-ninth Street and Tenth Avenue, with an address by President Nicholas Murray Butler, who then introduced Dr. Walter B. James. Dr. James spoke on The Old and the New Medicine.

The Saratoga County Medical Association met at the Worden Hotel, where a symposium on typhoid fever was conducted as follows: *Ætiology and Pathology*, by Dr. G. Scott Towne; *Symptoms and Early Recognition*, by Dr. Amos W. Thompson; *Complications and Prognosis*, by Dr. George F. Comstock; *Medical Treatment*, by Dr. John F. Humphrey; *Hydrotherapy*, by Dr. Frederick J. Resseguie. Dr. Douglas C. Moriarta reported on a case of Tetanus, and Dr. Frank A. Palmer on a case of Infantile Surgery.

The Third Annual Meeting of the State Sanitary Officers will be held in Albany on October 8th and 9th. The following papers will be read: Thursday afternoon—*Comments on Recent Amendments to Public Health Law*, by Deputy Attorney General S. T. Church; *Food Adulteration, Its Nature, and Extent*, by Prof. Willis G. Tucker; *School Sanitation*, by Prof. O. H. Landreth; *Care of Eyes of School Children*, by Dr. P. A. Callan, of New York city. Thursday evening—*The Management of Epidemics of Contagious and Infectious Diseases*, by Dr. R. B. Fulton, secretary of the Maryland Board of Health; *The Serum Treatment of Tetanus*, by Dr. Herbert D. Pease. Friday morning—*Management of Typhoid Fever Epidemic*, by Dr. George A. Spoor, of Ithaca; *Prophylaxis of Pulmonary Tuberculosis*, by Dr. W. A. Evans, of Chicago; *New York State Hospital for Tuberculosis*, by Dr. Willis G. MacDonald; *Suggestions for Registers of Local Boards of Health*, by Thomas A. Stuart, chief clerk of the State department of health. Friday evening—*The Protection of Milk in Cities*, by Dr. E. J. Lederle, of New York City Board of Health; *Water Purification*, by Dr. Allen Hazen, of New York city. On Friday afternoon the health officers will visit the filtration plant.

A Meeting of the State Board of Examiners of Registered Nurses, composed of L. Bissell Sanford, of New York; Miss Annie Dawes, of Buffalo; Miss Dorothy N. MacDonald, of Brooklyn; Miss Sophia F. Palmer, of Rochester; and Miss Jane Elizabeth Hitchcock, of New York, was held in the regents' office at Albany on September 14th. All members of the board were present; also the secretary, James Russell Parsons, of the regents' office. The board organized by electing Miss Palmer, of this city, as president and Miss Hitchcock as secretary. Miss Palmer is editor of the *American Journal of Nursing*. Miss Hitchcock has charge of the nursing staff in the nurses' settlement, New York city. The board first considered and adopted a form of application for certificate as registered nurse. Blanks will be printed immediately. Those who desire to apply for certificates as registered nurse should ask for these blanks at the regents' office. Section 208 of the law waives the examination upon recommendation of the State board of ex-

aminers of graduates, residents of the State of New York, at least twenty-one years of age and of good moral character, with diploma from approved training schools for nurses connected with a hospital or sanitarium, giving a course of at least two years; also of those who were in training at the time the act was passed, who shall graduate hereafter; and also of those with three years' experience in a general hospital in the practice of nursing prior to the passage of the act who shall apply in writing for such certificate within three years after the passage of the act. Finally any nurse of good moral character who has been engaged in the actual practice of nursing for not less than three years prior to the passage of the act, who shall satisfactorily pass an examination in practical nursing within three years thereafter. The test in practical nursing will include both a practical demonstration and a written test involving the care of febrile cases, of patients before and after operation, of the mother and newborn babe in normal and abnormal obstetrical cases, of treatment of emergencies, and a knowledge of drugs with regard to toxicological symptoms and treatment after poisonous doses. Male nurses will be examined on genitourinary work as a substitute for obstetrical cases. The practical demonstration will be conducted by a member of the board of examiners, who must recommend the applicant for admission to the written test. Both practical demonstration and written test will be held on the dates and at the places prescribed for regents' examinations in the other professions, viz.: At New York, Albany, Syracuse, and Buffalo, June 21, 1904; January 24, 1905; June 20, 1905. As students in training schools prior to April 27, 1903, are exempt from full examination, it does not become necessary to prescribe the conditions for certificate with full examination for some time to come. The requirements for such certificates, therefore, will be announced later.

PHILADELPHIA AND PENNSYLVANIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

Week end'g Sept. 26. Week end'g Sept. 19.

DISEASES.	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	18	1	7	1
Diphtheria	64	12	62	9
Scarlet fever	51	1	57	6
Typhoid fever	81	8	82	10
Consumption	0	53	..	57
Cerebrospinal fever	0	0	..	1

This table shows an increase of one in the total of cases of contagious diseases as compared with the preceding week.

Change of Address.—Dr. F. Hurst Maies, instructor in gynecology at the Jefferson Medical College, and gynecologist to St. Joseph's Hospital, has opened an additional set of offices at 1900 Chestnut Street.

Philadelphia Hospital.—The surgical wards are being completely renovated. The consumption pavilion is continuing to furnish encouraging statistics. As is usual, at the approach of winter, the number of inmates is increasing.

Medico-Chirurgical College.—The opening exercises of this institution took place on the evening of September 28th, the opening address being delivered by Prof. George H. Meeker. The class this year is an exceptionally large one.

University of Pennsylvania.—This institution opened on September 25th with an introductory address by Provost Charles C. Harrison. The freshman class of this year is the largest in the history of the college.

Smallpox Again Increasing.—More cases of smallpox have been reported in Philadelphia during the past week than in any week for a month. The necessity for vaccination is continuing to be rigidly emphasized.

Philadelphia Hospital Clinics.—The following lecturers have been selected for 1903: Medical—Dr. R. G. Curtin, Dr. J. H. Musser, Dr. S. Solis Cohen, Dr. W. E. Hughes. Surgical—Dr. W. J. Hearn, Dr. Orville Horwitz. Neurological—Dr. Chas. K. Mills. Gynecological—Dr. B. C. Hirst, Dr. E. P. Davis. Laryngological—Dr. G. M. Marshall, Dr. R. B. Gleason. Orthopædic—Dr. H. A. Wilson. Dermatological—Dr. H. W. Stelwagon. Pædiatric—Dr. W. C. Hollopeter, Dr. J. M. Taylor. Röntgen Ray Therapeutics—Dr. M. Kassabian. Dental Surgeons—Dr. M. H. Cryer, Dr. R. H. Nones.

Opening of Jefferson Medical College.—The seventy-ninth session of the Jefferson Medical College began on September 24th, with an opening address by the Hon. William Potter, Ex-Minister to Italy, and President of the Board of Trustees. The number of matriculates for the class of 1907 is exceptionally large. In the course of his speech Mr. Potter called attention to the fact that only in Pennsylvania rich men have given liberally to libraries and other institutions of learning, utterly forgetful of the needs of those devoted to the saving of human life.

Typhoid Fever Still Persisting.—Notwithstanding the conjoint efforts of the various municipal departments, typhoid fever still persists in Philadelphia to an alarming degree. There have been various causes named—infected milk, the drinking of contaminated water by the residents of Philadelphia, or their infection while away from the city, and the drinking of unfiltered water while in Philadelphia. Springs, wells, and other water sources are now blamed. Sixteen new cases were reported in the Twenty-first Ward last week, there being altogether eighty-one cases in the city.

Source of the Epidemic of Typhoid Fever.—Infected milk and defective sanitary conditions and not an impure water supply are the reasons given by Dr. Abbott, of the bureau of health, as the cause for the prevalence of typhoid fever throughout the city. In his report Dr. Abbott says: "The conclusion reached is, in brief, that the unusual number of cases of typhoid fever in the Twenty-first Ward is not due to the water supply, else there should be a corresponding increase in the Twenty-second Ward, receiving essentially the same supply. This is not the case. That all the accumulated evidence points to the accidental infection of two milk supplies as the probable cause of the sudden outbreak and, finally, that unless certain defective sanitary conditions now existing in the ward be corrected, we may look for a repetition of this accident in spite of

the fact that the population of those two wards is receiving a water supply of the very best grade." He also said: "The investigation of the milk supply showed that of the seventy-eight cases of typhoid fever in the Twenty-first Ward occurring since August 1st, forty-one, or approximately 53 per cent., were found to have purchased their milk from a single dealer. On visiting the premises of this dealer we discovered conditions that at first glance gave the impression of an unusually clean and tidy dairy, but on going into the matter more closely we found that two members of his household were at the time indisposed and within a brief time of our first visit both of these persons were sent to the hospital suffering from typhoid fever. In pursuing further this line of our investigation we discovered another dealer, supplying about 150 quarts daily to the people of the Twenty-first Ward, in whose house during April and May there had been one case, during July another, and for the past three weeks there has been a third case of typhoid fever, all in members of his family. A careful study of the other dealers who supply milk to the Twenty-first Ward revealed nothing of a suspicious nature. As milk is one of the best vehicles for the conveyance of typhoid fever infection, it seems fair to suspect that the disease in the ward in question is due to the use of milk that was in one case accidentally infected by the dealer in whose family the disease existed."

Dr. John H. B. Amick Dead.—Dr. John H. B. Amick died on September 26th in the German Hospital after a long illness, at the age of 52. He graduated from the medical department of the University of Pennsylvania, and began practising in Schuylkill Haven. He came to Philadelphia in 1881, and has been extensively identified with politics since, having served three terms as common councilman. President Harrison appointed him inspector of drugs in the Philadelphia Custom House. During the Spanish war he served as surgeon in the Nineteenth Regiment, Pennsylvania Volunteers.

The Henry Phipps Institute for the study, treatment, and prevention of tuberculosis has arranged for the coming fall and winter a series of lectures by well known physicians on the various phases of tuberculosis. Some of these lectures will be more or less popular in character and all will be free to the public. The auditorium of Witherspoon Hall at Juniper and Walnut Streets, Philadelphia, has been selected for the purpose, having a seating capacity of nearly twelve hundred people. The first of these lectures will be given by Dr. E. L. Trudeau, of Saranac Lake, New York, during the last week in October, his subject being *The History of the Development of the Tuberculosis Work at Saranac Lake*. The following gentlemen have been invited to give the subsequent lectures: Dr. Pannwitz, of Germany, in November; Dr. William Osler, of Baltimore, in December; Dr. Calmette, Director of the Pasteur Institute, at Lille, France, in January; Dr. Herman M. Biggs, of New York, in February, and Dr. Maragliano, of Italy, in March. All of them have accepted with the exception of Dr. Calmette, who will come if it is possible for him to leave his work in connection with his

institute, and the International Congress on Tuberculosis to be held in Paris, in 1904. Subjects and exact dates will be announced as soon as possible. The Director and members of the staff of the Henry Phipps Institute extend a cordial invitation to the profession in general to attend these lectures. It is greatly desired that this inaugural series of lectures given by these gentlemen will prove a success and be largely attended. The following additions to the staff of the Henry Phipps Institute have been made: M. P. Ravenel has been appointed Assistant Medical Director and chief of the laboratory; E. A. Shumway has been appointed ophthalmologist, and J. F. Wallis has been appointed dermatologist.

CHICAGO AND ILLINOIS.

The Most Important Event of the Week, pertaining to the public health of the city, was the action of the board of education referring the question of a pure water supply for the 280,000 public school children to the Committee on Buildings and Grounds. The practical common sense of the chairman of this committee and his recognized ability in "arriving" warrant the belief that a satisfactory solution of this problem will at last be reached.

Destruction of Fruit and Vegetables.—An unusual quantity of unwholesome vegetables—eight carloads of potatoes on one day—was condemned during the week. The rotting was due to the green and watery condition of the vegetables, a result of the bad weather. The past summer has shown the necessity for an increased force of meat and vegetable inspectors. Fruit and green grocers' shops should be licensed and the income fees used in protecting the public against rotten fruit and vegetables and dishonest packing, so common during the past season.

A Dishonest Farmer Caught.—Formalin was found during the week in one shipper's milk. The sale was at once stopped by the dealer and the next shipment was met at the train and the milk dumped into the sewer. The farmer was notified that his milk was excluded from sale in the city.

GENERAL.

The Virginia Medical Society, at its meeting on September 17th, passed a resolution to the effect that physicians might insert personal cards and advertisements of private hospitals in the lay press.

Kansas Pension Examiners.—E. L. Harrison has been appointed a member of the board of medical pension examiners for Kansas to succeed A. P. Tenny. Commissioner of Pensions Ware made the appointment at Washington.

Longview Hospital, Cincinnati, O., has leased a tract of ground south of the present site for three years with privilege of purchase, for farming and pasturing purposes. The rent is \$582.40 per annum, and the purchase price, \$7,000.

The Training School for Nurses of St. Vincent's Hospital, Cleveland, O., graduated the following nurses on September 24th: Mary Agnes Shields, Mary Regina Kirchner, Isabel Rachel Morgan, Sadie Ann McElroy, Julia Ellen McGreedy, Sadie Easley Adams, Laura Olivia Wielandt, and Mary J. Pepper. Bishop Horstmann presided over the exercises.

A New Emergency Hospital is to be opened by the city of San Francisco on Kentucky Street, between Eighteenth and Nineteenth, occupying the building recently vacated by the branch of the city library.

Michigan's Medical Law in Operation.—We are advised that the item under this heading in our last week's issue is erroneous. Michigan has a regularly appointed osteopathic examining board, and only those osteopaths who fail to meet its requirements are excluded from the State.

The Dane County (Mich.) Medical Society was organized on September 18th in Madison with these officers: President, Dr. Cornelius A. Harper, of Madison; vice-president, Dr. W. T. Pinkerton, of Mazomanie; secretary and treasurer, Dr. Reginald H. Jackson, of Madison.

The Episcopal Eye, Ear, and Throat Hospital, of Washington, D. C., has received a bequest of \$5,000 by the will of Anna D. Mansfield, to be known as the Charles Davies Mansfield Memorial Fund, for the purpose of maintaining a bed in the hospital.

The Louisville Medical and Surgical Society gave a banquet on September 21st and subsequently elected the following officers: President, Dr. F. Kiefer; vice-president, Dr. Irwin Abel; secretary, Dr. W. T. McKinney; treasurer, Dr. O. H. Falconer.

The Indiana Medical College began its thirty-fourth annual session on September 22d. It is expected that some three hundred students will be enrolled. Dr. Bernays Kennedy, Dr. Kenneth I. Jeffries, and Dr. Edgar Kiser are new members of the faculty.

University of Maryland.—The building now occupied by the dental department of the University of Maryland is to be replaced by a four-story building, ninety feet by one hundred. The two lower floors will be used by the dental department, and the two upper floors by the medical department for laboratories.

The Memorial Hospital for Women and Children, situated on Classon Street, Brooklyn, has been purchased at auction by the Jewish Hospital Society, of which Abraham Abraham is President, at a cost of \$96,500. The former supporters of the Memorial institution will endeavor to secure other quarters.

Death Rate of Berlin.—The public health reports state that the death rate of Berlin for week ending August 1st was higher than it has been for any week during the current year. It amounted, calculated on the year, to 17.5 per thousand of the population (as against 16.9 in the foregoing week), and was considerably higher than the rate for the corresponding week of last year, in which it amounted to 14.4. In spite of this increased mortality, however, only seven of the large German cities showed more favorable health conditions than Berlin, viz., Bremen, Dresden, Charlottenburg (15.2), Schoeneberg (14.3), Crefeld, Stuttgart, and Kiel.

The Medical and Chirurgical Faculty of Maryland held its semiannual meeting at Blue Mountain House, Blue Mountain, Md., on September 24th and 25th. There was quite an extensive gathering at this beautiful spot. Before the meeting, Dr. J. N. McCormack, who had come over from the Pennsylvania State Medical Society's meeting at York, in an informal talk explained to the committee the method of organization of county medical societies recommended by the American Medical Association. The opening session was held about 3 p. m. on the 23d, the president, Dr. Eugene F. Cordell, of Baltimore, in the chair. The presidential address will shortly appear in our columns. Dr. Thomas H. Brayshaw read a paper on Climatic Influence in Disease. Dr. John S. Fulton, secretary of the State board of health, made some forcible remarks showing what the country physician can do to prevent or limit epidemics of typhoid fever. In the absence of Dr. Osler, Dr. T. B. Futcher, of Johns Hopkins, addressed the meeting on the best means to employ for the early diagnosis of typhoid fever. An evening session was held at 8 p. m., which was opened with a paper by Dr. Charles Wardell Stiles, of the Marine Hospital Service, on The Dwarf Tapeworm (*Hymenolepis nana*), a Newly Recognized and Probably Common Parasite in American Patients. The paper, which was illustrated by lantern slides, will shortly appear in our columns. Then followed a series of four ethical papers, the first of which on the programme, owing to the absence of Dr. W. H. Welch, was replaced by an address by Dr. J. N. McCormack. Dr. D. W. Cathell considered the wisdom of changing the code of ethics; Dr. C. M. Ellis dealt with the organization of county medical societies and their affiliation with the faculty; and Dr. S. T. Earle, with the amendments necessary to bring the faculty into harmony with the American Medical Association. The following papers were scheduled for Friday, 25th, morning—The Medical Aspects of the Baltimore Geographical Society's Expedition to the Bahamas, by Dr. C. A. Penrose; Tuberculosis of the Urinary System in Women, Report of Thirty-five Cases, by Dr. Guy L. Hunner; Omental Suture for Ascites, by Dr. Joseph H. Branham; The Diagnosis of Affections of the Pancreas, by Dr. Eugene L. Opie; The Indications for Operation on the Gall Bladder, by Dr. Randolph Winslow; and A Consideration of the Methods of Operating upon the Bile Passages, by Dr. J. M. T. Finney. Afternoon—Needed Amendments to the Medical Practice Act, by Dr. J. McP. Scott; State Care of the Insane, by Dr. George J. Preston (discussion to be opened by Dr. J. Clement Clark); and The Prevention of Blindness and of Further Deterioration of Defective Eyes through Legislation or Recommendations to Hospitals and School Authorities, by Dr. Hiram Woods. On Thursday afternoon the members took a carriage excursion to High Rock, Mt. Quirank and Ragged Edge. In the evening there was an open air concert by Professor Bohl's Blue Mountain Orchestra. A visit to the field of Gettysburg was arranged to take place in the afternoon of the 25th, whither also the Pennsylvania State Medical Association repaired on the same day. In the evening an informal reception, *musicale*, and dance took place, given by the manager in honor of the president and members of the faculty.

Pith of Current Literature.

BRITISH MEDICAL JOURNAL.

September 5, 1903.

This is the Educational number of the journal, and is entirely devoted to information relative to the various degrees and diplomas and medical schools.

September 12, 1903.

(Seventy-first Annual Meeting of the British Medical Association.)

Section of Pathology.

1. The Inoculability of Human Tuberculosis Upon Bovines, By D. J. HAMILTON.
2. Two Cases of Obliterative Arteritis in Young Men, leading to Gangrene in Extremities, By E. MICHELS, and F. P. WEBER.
3. A Discussion on Miners' Phthisis, By T. OLIVER, J. G. ADAMI, and Others.
4. Discussion on the Pathology of Splenic Anæmia, By H. D. ROLLESTON, R. S. TREVOR, and Others.
5. Changes in the Spinal Cord in a Case of Diphtherial and of Alcoholic Paralysis, By J. M. CLARKE.
6. The Purin Bodies of Human Fæces in Health and Disease, By I. W. HALL.
7. Classification Cards for Use in Bacteriology, By K. GOADBY.
8. A New Method for the Determination of Uric Acid in Urine, By A. F. DIMMOCK, and F. W. BRANSON.
9. Leucocytosis and Lymphocytosis in Malignant Disease, Lymphadenoma, Leucæmia, etc., By F. G. BUSHNELL.

Section of Diseases of Children.

10. Case of Syphilitic Nephritis in An Infant Aged Five Months, By G. CARPENTER.
11. Adenoid Vegetations in Infancy, By R. C. DUN.

1. **Human and Bovine Tuberculosis.**—Hamilton, in his opening address, again calls attention to the experiments of himself and Young, which were performed for the purpose of testing Koch's assertion that human tuberculosis cannot be conveyed to bovines by any means of inoculation. Of nineteen calves experimented with, fifteen undoubtedly had human tuberculosis conferred upon them by feeding, respiration, inoculation, etc. To that the author is inclined to believe that either the bacilli in bovines and in man are alike, or that the calf is susceptible to both, and that the question of the transmissibility of human tuberculosis to the bovine is pretty well settled in the affirmative.

2. **Obliterative Arteritis.**—Michaels and Weber report two cases of localized gangrene in extremities due to arterial disease in young men. One case was a typical one for obliterative arteritis, arising in a healthy man, aged thirty-seven years, without abnoris cause. In the second case certain nervous symptoms (contractures, rhythmic clonus, suicidal mania) formed a complication, and possibly the arterial changes were partly of nervous origin. In both cases amputation of the foot was successfully performed, there being no recurrence of the gangrene.

3. **Miner's Phthisis.**—Oliver sums up his paper as follows: 1. Miner's phthisis is not the result of gases given off by the strata or evolved by the explosives used in mines. 2. It is a disease in which there is marked excess of fibrous tissue in the lungs, embedded in which can be seen numerous particles of coal dust and siliceous material; in which also cavities may be seen and tubercle occasionally detected. 3. It is a disease of occupation, due to the irritating action of dust, which renders the individual liable to repeated catarrh; it is not only non-tuberculous, in the early stages, but may even remain non-tuberculous throughout; when tubercle is present it is an accidental infection, which, while hastening the end, does not exercise any very marked influence upon the preexisting structural alterations caused by dust, unless it be a tendency towards disintegration. 4. It is a local disease, purely personal to the individual, and never assumes hereditary characters. 5. Accepting this view of the pathology of the disease, miner's phthisis, as experience in England has shown, may be largely prevented by improved ventilation, and by the adoption of means for the removal of dust or for the allaying of dust by water.

4. **Splenic Anæmia.**—Rolleston enumerates the clinical characters of chronic splenic anæmia as follows: (a) splenic enlargement which cannot be correlated with any known cause; (b) absence of enlargement of the lymphatic glands; (c) anæmia of a type midway between secondary anæmia and chlorosis; (d) leucopenia, or at most no increase in the number of the white blood corpuscles; (e) an extremely prolonged course lasting years; and (f) a tendency to periodic hæmorrhages especially from the gastrointestinal tract. The diminution in the red corpuscles is not excessive, the average count being about three and a half millions. A low leucocyte count is characteristic, the multinuclear forms being decreased, and the uninuclear relatively increased. The spleen is enlarged in all directions: in nearly all cases there is fibrosis of the organ, atrophy of the lymphoid elements, and fibrosis of the malpighian bodies. There is no evidence of exaggerated hæmolysis. Trevor sums up the histological changes met with in the spleen in splenic anæmia as follows: (1) Atrophy of the malpighian bodies, brought about either by an overgrowth of the connective tissue ensheathing the central artery, or by an encroachment of fibrous tissue from the periphery. (2) Thickening of the capsule and the trabeculae, the walls of the vessels and of the fine fibrous reticulum forming the walls of the spaces of the splenic pulp. (3) Proliferation of the endothelium lining the splenic vessels and blood spaces of the pulp. The proliferated endothelium appears in the form of large cells with clear protoplasm and a peripherally-situated nucleus, the cells in some instances completely filling the blood space. Occasionally giant cells are present.

Senator states that the reason for the swelling of the spleen is to be found in an abnormal condition of the blood, owing to different causes. In cases associated with malaria, rickets, Bar-

low's disease, etc., the cause may be the specific alteration of the blood peculiar to each of these diseases. In the other cases with unknown aetiology it must be assumed that the injurious substance reaches the blood from the intestine through the lymphatic ways. He holds that splenic anæmia cannot be strictly separated from other affections of the hæmopoietic viscera which have a great resemblance to leucæmia. Secondary, enlargement of the liver with ascites is not uncommon, constituting the so-called Banti's disease.

6. Fæcal Purins.—Hall's observations go to show that under ordinary circumstances the food purins are not voided by the fæces. When the dietary contains large amounts of nucleins (sweetbread, etc.) only a certain proportion is decomposed; the remainder appearing in the fæces. The presence of guanin, adenin, xanthin, and hypoxanthin in the fæcal nuclein suggests an origin from the cell nuclei of the intestinal mucous membrane. In diarrhœa the purin bodies are increased. In the normal adult the fæcal purin yields daily about 0.010 to 0.023 gram of nitrogen.

8. Estimation of Uric Acid.—Dimmock and Branson's method for the determination of uric acid in urine is as follows: The urine is warmed to about 40° C. and saturated with ammonium chloride; the uric acid combines with the ammonia forming insoluble ammonium urate. This precipitate is filtered off, and is then carefully and thoroughly washed with a dilute solution of ammonia (1 to 1,000). The amount of nitrogen in the ammonium urate is then ascertained by means of the ordinary hypobromite method (as for urea), and the percentage of uric acid calculated from the amount of nitrogen evolved. The process is quite suitable for proportions of uric acid ranging from 1 in 1,000 to 1 in 10,000.

9. Leucocytosis and Lymphocytosis.—Bushnell's paper embodies the chief features of forty-two blood counts, with remarks on the leucocytosis and lymphocytosis of malignant disease, lymphadenoma, Hodgkin's disease, leucæmia, etc. In sixty-four per cent. of the cases of malignant disease leucocytosis was present. In malaria the large uninuclear leucocytes were found to be increased (32 per cent. in one case); eosinophilia was also noted in one case of malaria with "jigger" in the foot and bubo. A case of blackwater fever with malarial crescents in the blood, showed a leucocytosis of 25,000. The author holds that any microscopical distinction between large uninuclear cells and large lymphocytes, with ordinary staining, is quite arbitrary and unjustifiable.

10. Syphilitic Nephritis.—Carpenter reports a case of catarrhal nephritis occurring in an infant aged five months, suffering from hereditary syphilis. He also reports a second case of catarrhal nephritis in an infant, where postmortem the kidneys showed incontestable syphilitic lesions. Congenital syphilis is known to cause interstitial nephritis; the author's cases show that in some instances it produces a nephritis indistinguishable clinically from acute catarrhal nephritis by

reason of its symptoms and urinary deposits, and that interstitial changes may or may not be present.

11. Adenoids.—Dun believes that in the majority of cases of adenoids in infancy the symptoms are slight and do not materially affect the health and development of the child, and that such cases may be efficiently treated medically, operative intervention being uncalled for. On the other hand, there are cases, comparatively few in number, in which definite and severe symptoms occur, producing marked ill health; such symptoms are usually those of nasal obstruction and catarrh, nervous processes or septic processes occasionally predominating; these cases are most satisfactorily treated by removal of the adenoid growths.

LANCET

September 5, 1903

The Students' number. Devoted entirely to information on medical education.

September 12, 1903

1. On the Influence of Brain-Power on History.
By SIR N. LOCKYER.
2. Some Points in Abdominal Surgical Diseases,
By E. S. BISHOP.
3. Upon the Virulence of the Bacillus of Human and Bovine Tuberculosis for Monkeys,
By A. MACFADYEN.
4. Bromide of Ethyl as a General Anæsthetic and as a Preliminary to Ether,
By W. R. HUGGARD.
5. On the Detection of Lead in Urine and Post-Mortem Specimens,
By J. W. MELLOR, and F. SHUFFLEBOTHAM.
6. A Case of Umbilical Calculus,
By J. R. HARPER, and C. G. SELIGMANN.
7. A Case of Splenic Anæmia,
By G. PEACOCKE, T. E. GORDON, and J. A. SCOTT.
8. A Case of Rupture of the Œsophagus from An Accident,
By T. R. C. WHIPHAM.
9. The Treatment of Cancer and Other Forms of Malignant Disease by Electric Osmose,
By C. A. J. WRIGHT.
10. The Treatment of Plague by Large Doses of Carbolic Acid Given Internally,
By J. M. ATKINSON.
11. A Case of Presumed Ptomaine Poisoning,
By T. B. BROADWAY.
12. Post-Graduate Work Abroad. I.: Paris.
By A. A. WARDEN.

3. Human and Bovine Tuberculosis.—MacFadyen reports the results of experiments undertaken with the view of ascertaining in how far the human and bovine strains of the tubercle bacillus agree or differ as regards their infective properties for the monkey. Eighteen monkeys were employed. The experiments consisted in inoculation with bovine tubercle bacilli, and in feeding with human and bovine tuberculous material. The monkey proved susceptible to an inoculation with the bacillus of bovine tuberculosis either directly or after one passage through the organism of the guinea pig. A certain number of the animals died within ten days after feeding with bovine and human tuberculous material. Normal human sputum did not pro-

duce this effect, and the result suggested some form of intoxication. The monkey fed thrice, twice, or once with bovine or human tuberculous material succumbed to a general tuberculosis in about one to two months. The striking difference in the effects produced occurred in the digestive tract. Intestinal lesions were found in the case of every monkey that had been fed with human material, while none of those fed with bovine material showed any evidence of tuberculous intestinal ulcers. So that it would appear that virulent bovine tubercle bacilli may pass through the intestinal wall in large numbers without any detectable lesion of the gut being produced. And further that a food tuberculosis can be as readily brought about by the bovine as by the human strain of the tubercle bacillus in the young monkey.

4. Bromide of Ethyl.—Huggard calls attention to the value of bromide of ethyl as a general anæsthetic and as a preliminary to ether. Its use on the Continent is widespread. Deaths from its use appear to have occurred chiefly some years ago before the sources of danger were understood. No death has been reported since 1897. The rapid anæsthesia produced by bromide of ethyl, its short duration, the quick return to consciousness, and the absence of unpleasant effects are very striking. The amount to be given at a single dose is from 10 to 30 grammes, and the drug must be pure: it is very liable to undergo decomposition through exposure to light or air. Most of the deaths reported have been due either to excessive dose or to impurity. It should be administered by means of a mask covered with impermeable cloth, so as to exclude the air. Unsuitable persons are young children and those suffering from anæmia, Bright's disease, fatty degeneration, and alcoholism. Vomiting occasionally occurs. One drawback of bromide of ethyl anæsthesia is that the muscles do not usually become relaxed. In mouth operations a gag should be inserted before the operation is begun.

5. Test for Lead.—Mellor and Shufflebotham recommend the use of fuming nitric acid for the detection of lead in organic matter. If the specimen is one of tissue it is treated with fuming nitric acid and heat until entirely dissolved. The solution is then evaporated down to a few cubic centimetres, neutralized with caustic soda, filtered and treated with hydrogen sulphide. If lead is present a dark brown precipitate of lead sulphide is obtained. In the case of urine half a gallon is evaporated to dryness and then treated as above. The authors cite four cases of suspected lead poisoning in which the test was applied with satisfactory results.

6. Umbilical Calculus.—Harper and Seligmann report the case of a man aged forty-six years, who, when first seen, was apparently suffering from an abscess in the anterior abdominal wall, discharging through the umbilicus. The abscess rapidly increased in size, and when opened, extended from the umbilicus to Poupart's ligament on the left side. On the evacuation of

the pus a calculus the size of a walnut was found behind the rectus muscle. The stone was brownish in color, had a fæcal odor, and crushed easily. It consisted of short hairs, cholesterin, and woody vegetable tissue. Such calculi arise as accumulations of the epidermis and hair shed into the umbilical depression, which latter becomes obstructed, possibly from local inflammation such as eczema, etc.

7. Splenic Anæmia.—Peacocke reports the case of a man aged forty-five years, suffering from anæmia and enormous enlargement of the spleen, which latter extended nearly to the crest of the ilium. Blood count showed—red corpuscles, 4,250,000; leucocytes, 4,250 per cubic centimetre, and hæmoglobin, 60 per cent. Splenectomy was performed by Gordon, who found the spleen free from attachments. Some difficulty was experienced in ligating the splenic vessels, as the spleen was too large to turn outwards. Recovery was uneventful, and within two months the patient seemed entirely well. The spleen measured twelve, by eight, by four inches, and weighed eight pounds, two ounces. Microscopical examination showed marked enlargement of the malpighian corpuscles, the spleen pulp being absent. There was no increase of the trabeculæ or the reticular connective tissue.

8. Rupture of the Œsophagus.—Whipham reports the case of a man who had been thrown from a horse, sustaining a comminuted fracture of the frontal bone. The patient remained comatose and died in a few hours. At the autopsy there was found a longitudinal rupture of the wall of the Œsophagus on its posterior aspect, one and a half inches long, communicating directly with the left pleural cavity. The latter contained about a pint of fluid food material. The rupture of the Œsophagus must have been due either to overstretching, or to violent convulsive contraction of the Œsophageal muscles.

9. Electric Osmose in Cancer.—Wright reports five out of twenty-three cases of malignant disease in which a cure was brought about by the use of alternating electric currents of high frequency. He describes the phenomena of electric osmose, and the cataphoric treatment of disease. The medicaments used were strontium cinamate, glycerophosphate of lime and strontium, citric acid, iodine, and suprarenal extract. As a suspending vehicle he used a dilute glycerocolature or liquid paraffin emulsion. The author believes that a "radio-active salt of strontium, introduced into the tissues by cataphoresis by high frequency," will prove the desired panacea in all forms of malignant disease.

10. Carbolic Acid in Plague.—Atkinson reports six cases of bubonic plague treated by large doses of carbolic acid given internally. All made satisfactory recoveries. Twelve grains of carbolic acid were given every two hours for sixty hours; after this the dose was six grains every four hours. This was continued for two weeks. Slight carboloria may occur, disappearing when the dose is lessened.

MUENCHENER MEDIZINISCHE WOCHENSCHRIFT

August 18, 1903.

1. Prophylaxis and Treatment of Puerperal Fever,
By H. FEHLING.
2. Giant Growth of the Newborn,
By H. FUCHS.
3. Three Cases of Uterine Sarcoma,
By WILHELM EVELT.
4. Penetrating Stab and Shot Wounds of the Abdomen,
By H. GEBELE.
5. Psychoses Appearing as Pure Primary Incoherence,
By L. W. WEBER.
6. Critical and Experimental Studies on the Resuscitation
of Removed Human and Animal Hearts,
By ALOIS VELICH.
7. Alcoholism and Beer,
By G. KEFERSTEIN.
8. Toxines and Antitoxines,
By P. EHRLICH.

1. Prophylaxis and Treatment of Puerperal Fever.—Fehling advises the use of gloves in obstetric work, but thinks their usefulness limited in operative cases, as the gloves may easily tear, and he prefers the bare hand for removal of adherent placenta. For students, they have the disadvantage of making them negligent in the disinfection of the hands. The practitioner should always carry at least two pairs of gloves with him in case the first pair should tear. The morbidity in Fehling's clinic (Strassburg) was less when gloves were used than without them.

He offers several objections to hysterectomy in cases of puerperal sepsis. It is a useless operation if the blood already invaded with cocci or their toxins, and equally useless if metastatic deposits have already taken place. The mortality is high after the operation (55.7 per cent.), and higher when performed by the vaginal than by the abdominal method. It is indicated only when it can be demonstrated that the uterus is the sole focus of infection. Serum treatment seems unavailing and Credé's collargol is still *sub judice*. The best treatment is prophylactic, in genuine asepsis by the use of gloves, and in absolute cleanliness in operative measures.

3. Sarcoma of the Uterus.—Evelt reports three cases of uterine sarcoma in all of which the preoperative diagnosis of myoma was made. The author remarks on the greater frequency of sarcoma than has previously been suspected, on the extreme difficulty of correct clinical diagnosis, on the importance of removing every myoma which shows a rapid growth, and especially on the importance of watching carefully every myoma at the time of the menopause. The degeneration of myomata into sarcomata is emphasized and the rapidity of the formation of metastases is commented on.

4. Stab and Gun Shot Wounds of the Abdomen.—Gebele insists on the importance of immediate laparotomy in penetrating stab and gun-shot wounds of the abdomen in times of peace. In war, bleeding is always an indication for opening the abdomen, but unless there is hæmorrhage, the experiences of recent years, shows that in war, gastrointestinal wounds, if protected by an aseptic dressing, can wait for operation with safety.

5. Psychoses Appearing as Incoherence.—Weber says that by the action of greatly debilitating

or toxic substances, acute psychoses may arise which show as the principal and most striking primary symptom, a disordered and disturbed comprehension of concepts. Depending upon this primary incoherence, and the disturbed orientation and judgment associated with it, the other psychic symptoms arise,—changes in the temperament, the alterations in consciousness and the maniacal notions.

6. Resuscitation of the Heart.—Velich recommends, in cases of sudden cessation of the heart beat, as in chloroform narcosis, electrical shocks, etc., Spina's method of filling the cardiac vessels with blood. Experimentally, it has been proved that this manœuvre will cause the exposed and pulseless heart of cold and warm blooded animals, to renew its beating. Spina's method consists of injecting into an artery toward the heart a considerable quantity of normal salt solution at a temperature of from 95° to 100° F. The solution forces the blood before it, closing the aortic valves, and the blood is thus forced into the coronary arteries. In animals the method has been efficacious if the heart has not stopped beating for more than ten minutes.

DEUTSCHE MEDIZINISCHE WOCHENSCHRIFT.

August 20, 1903.

1. Biochemistry of Pregnancy,
By ERICH OPITZ.
2. Traumatic Infarcts Following Subcutaneous Rupture
of the Kidney,
By ALFRED SCHÖNWERTH.
3. The Alkalinity of the Blood,
By W. ORLOWSKY.
4. Case of General Thrush Infection (*Concluded*),
By O. HEUBNER.
5. Treatment of Skin Diseases with Röntgen Rays and
Concentrated Light (*Concluded*),
By W. SCHOLZ.
6. Veronal as a Hypnotic,
By KURT MENDEL, and J. KRON.
7. Adrenalin in Gynæcology,
By H. CRAMER.

2. Subcutaneous Rupture of Kidney.—Schönwerth reports a case of a young man who was kicked by a horse in the region of the left kidney. After two days the urine became bloody and in the left abdominal region there was dullness on percussion. On the fourth day, there was a chill and a suppurating hæmatoma was suspected, an operation was performed and the pus emptied. A large, torn kidney was found which contained a reddish-yellow, wedge-shaped infarct. The patient recovered.

3. Alkalinity of the Blood.—Orlowsky has found that the alkalinity of the blood in various diseases is in proportion to the number of erythrocytes. Therefore, he believes that an acid intoxication of the body is possible only, when the alkalinity of the blood is less in proportion than number of red blood cells entitles it to be. In diabetes mellitus and in the cachexia of cancer this disproportion has been observed. Orlowsky also demonstrates that the artificial alkalinity of the blood evoked by the internal administration or by enemata of alkalies, is only temporary.

5. Röntgen Rays in Skin Diseases.—Scholz refers to his demonstration of the fact that the Röntgen rays evoke a degeneration of the cellular elements of the skin, especially of the epithelial cells, and in concentrated use, cause an inflammatory reaction. Therefore, the rays are useful in cases of

lupus, cutaneous cancers, eczema, and psoriasis. In more deeply lying lupus, Scholz adds pyrogalllic acid to the Röntgen ray treatment, and in ulcerating chancroids, he cures the skin before applying the rays. Bacteriologically, the rays are of not much value, but they have some epilating force.

ZENTRALBLATT FUER INNERE MEDIZIN

August 22 and 29, 1903.

1. Lymphocythæmia and Lymphomatosis,
By STANISLAUS KLEIN.
2. Origin of Certain Neuroses in Bicyclists and Their Pre-
vention.
By MARTIN THIERFELDER.

1. **Lymphocythæmia and Lymphomatosis.**—Klein reports in detail a number of cases of leucæmia, pseudoleucæmia, and some of their allied diseases, lymphosarcomatosis and tuberculosis of the glands. In all the cases precise hæmatological examinations were made, and the author makes an effort to establish differential points of diagnosis between the lymphocythæmic and lymphomatotic conditions by means of the blood examinations. In the majority of the cases pseudoleucæmia, the persistent lymphocytosis must be regarded as a point favoring this diagnosis rather than that of glandular tuberculosis in which a lymphocytosis is absent.

2. **Bicyclists' Neuroses.**—Thierfelder advises and describes a new handle for the bicycle which keeps the arm from its usual stiff and cramped position and thus prevents the constant tremor of the rider which often leads to neurotic conditions.

LYON MEDICAL.

September 6, 1903.

1. Local Anæsthesia in Dental Operations,
By JULIEN TELLIER.
2. Notes on Two Cases of Lead Poisoning; Occupation
Poisoning in a Carpenter,
By TILLIER.

1. **Dental Anæsthesia.**—Tellier's paper is a list of personal experiences with solutions of cocaine alone, where results were often terrifying, and with Schleich's solution, where results were excellent and there were no unhappy accidents. For one or two extractions, he recommends a solution of 1 centigramme of cocaine hydrochloride, 5 milligrammes of morphine hydrochloride, 3 drops of carbolic acid (as an antiseptic) in 100 drops of water. In only one case did the patient complain of pain. The injections should not be made in a fasting patient, but no other precaution is necessary.

2. **Two Cases of Lead Poisoning.**—Tillier's first case was in a young carpenter of excellent heredity and habits; the source of the poisoning was finally discovered in the tacks or small nails used in his work, which were covered with an unctuous substance, some form of lead; these tacks, the young man was accustomed to hold in his mouth. After heeding a warning against this practice, all symptoms disappeared. The second case was in a woman, fifty years of age, who had well developed symptoms, the source of which baffled for a long time Tillier and a consultant. They finally noticed that the poker she used had a large leaden ball for

a handle. After stirring up the fire, the old lady would dine without washing her hands, and besides was accustomed to carry a slice of bread in her pocket, which she crumbled and ate between meals. She managed to introduce so much lead into her system in this manner, that she finally succumbed to uræmia, induced by a lead nephritis. Tillier states that a chemist found over 3 grammes of lead in a kilogramme of the tacks used by his first patient, and thinks it is not unlikely that many cases of lead poisoning have arisen from these that have been falsely attributed to paint.

PRESSE MEDICALE.

September 5, 1903.

1. Curable Albuminurias,
By G. LYON.
2. The Formation of Lymph,
By MAURICE LOEPER.
3. Comparative Exploration of the Expansion of the
Apices in Pulmonary Tuberculosis,
By ALBERT RUULT.

1. **Curable Albuminurias.**—Lyon says "functional" albuminurias are still the least understood; their ætiology, treatment, and diet are subjects of lively controversy. There are points of resemblance, however, in that the parents are usually arthritics, gouty, lithæmics, nervous, and easily impressionable; the children are also nervous, subject to headache, insomnia, and a general atony of the tissues; gastropnoia is common, constipation, even colitis, not rare; they are either too fat, or too thin; and the albuminuric syndrome exists. Functional albuminuria is hereditary. It is in Lyon's opinion the constitution itself that demands treatment. Milk diet is not always successful; mixed diet is indicated, avoiding salt meats, salt fish, delicatessen, shellfish, fermented cheese, etc. From time to time, liquid diet may be alternated. Drink should be limited and include the still mineral waters, wine well diluted, not infusions, but not tea. Sometimes raw meat gives strength. Rest is often advised in excess, but an hour daily on the back is good. Exercise should be moderate, avoiding gymnastics, but submitting to massage, and alcohol, water, or dry rubbings. Fresh air especially at night is of great importance, and Lyon advises enemata of physiological serum and sodium phosphate internally.

2. **The Formation of Lymph.**—Loeper says the lymph is a very complex product, its formation demanding mechanical, physical, and vital force; it is a product of filtration, diffusion, of osmosis, and of true secretion. The lymphatic apparatus may be considered as a gland, made up of a number of minute glandular systems situated in the tissues; each of these systems is represented by a capillary, which is the filter, a cell or group of cells, which is the secreting portion, a lymphatic opening, and a lymphatic capillary, which are the reservoir and the excreting canal.

GAZZETTA DEGLI OSPEDALE E DELLE CLINICHE.

June 21, 1903.

1. Portal Atrophic Cirrhosis Without Enlargement of the
Spleen, as a Usually Congenital Disease,
By ANDREA FERRANNINI.
2. On Experimental Tuberculosis in Dogs and on the
Toxæmia which Follows,
By Dr. CASAVECCHIA.

3. Surgical Casuistic. By SILVIO ROJAS.
4. Endovenous Injections of Sublimate in the Treatment of Syphilis. By Dr. GRAVAGNA.
5. Sacculated Aneurysm of the Descending Portion of the Thoracic Aorta, Spreading Into the Abdominal Cavity. By CARLO QUADRONE.

2. **Experimental Tuberculosis.**—Casavecchia concludes from an experimental study of tuberculosis in dogs that the toxicity of the normal serum of dogs towards the rabbit varies from 18 to 23.21 c. c., averaging 19 c. c. per kilogramme of the animal; that the hæmolytic power of the normal serum of the dog upon the red corpuscles of the rabbit, is variable, from 4 to 5 drops up to 11 drops being necessary to affect a destruction of these cells, and that injections of tubercle bacilli into peritoneal cavity of the animal produce a true tuberculosis but, if injected into the veins they give rise to a miliary bronchopneumonia, which, however, has a tendency to end in resolution.

4. **Intravenous Injections of Sublimate in Syphilis.**—Gravagna reports a series of cases in which he used the method of Baccelli in the treatment of syphilis. This method has been employed in several hundred cases without observing any local or general disturbances due to the use of mercury in this form, except occasionally slight intestinal disturbances. It must be noted that not every patient presents a development of veins which is suitable for the application of this method, and also that, even in those persons who are suited for the injections, the veins after a time become less well adapted to receive the needle, and so the little operation becomes difficult and the treatment has to be suspended. This is a serious disadvantage of Baccelli's method. The author concludes that the results obtained with Baccelli's method in the early stages of generalized syphilis do not entitle it to preference over other methods of using mercury. In fact, in slight cases with moist lesions which heal easily Baccelli's method is of no more value than any other. In the more severe forms, and especially in the squamous and nervous types, Baccelli's treatment does not present a decided value, and other modes of administering mercury such as calomel must be resorted to.

5. **Sacculated Aneurysm of the Aorta.**—Quadrone reports a case of sacculated aneurysm of the descending portion of the thoracic aorta. This case was noteworthy for the following reasons: The sac was of enormous size, and in expanding took an unusual course; namely, towards the abdomen. In its course towards the abdominal cavity the sac simulated very closely an abscess arising from the spinal column. The diagnosis was made tentatively during life and was confirmed at the autopsy. It is very rare to find an aneurysm of the descending aorta spreading towards the abdomen; for, as a rule, it extends along the spine, compressing the œsophagus, and presses towards the left lung. More rarely it develops towards the right or towards the sternum. Its progress downwards meets a serious obstacle in the pillars of the diaphragm. A few cases are on record, however, in which such an aneurysm has penetrated into the abdomen. In this case the

aneurysm insinuated itself between the pillars of the diaphragm, was slightly constricted at that point, and expanded in the abdomen, occupying almost the entire left half of this cavity.

REVISTA DE ESPECIALIDADES MEDICAS

August 5, 1903.

1. Esquirol's Monomanias and Partial Insanity, By D. J. BAKER.
2. A Case of Adiposis Dolorosa, By F. A. RISQUEZ.

1. **Monomanias and Partial Insanity.**—Caballero holds that the species of insanity to which Esquirol gave the name of monomania should not be included within the more modern classification of partial insanity. The author considers the fixed idea in monomania as a part of a general delirium; while in the condition known as partial insanity, there is no general delirium; and aside from his one false idea, the patient is rational. While the delirium of the monomaniac embraces the strangest and most fantastic ideas which are entirely unrelated to his surroundings, that of the partially insane turns ever about one idea—that of persecution; and this idea is related to the patient's environment and to those with whom he is associated. The fixed idea of persecution will not alone serve for the diagnosis of partial insanity; that is, not every one possessed with this idea is to be classed among the partially insane: even though partial insanity is always characterized by the idea of persecution.

2. **Adiposis Dolorosa.**—Risquez reports a case of adiposis dolorosa in which the first symptom was sudden and repeated attacks of pain in the gluteal region, followed by marked increase in the size of the hips. This was succeeded by pain in and subsequent fatty enlargement of the arms, legs, and greater part of the body. A noticeable feature was the involvement of the feet; this being but the second case, within the author's knowledge, in which the disease affected the feet. The patient called attention to œdematous points on the legs, which experience had taught her were the forerunners of fatty enlargements. In view of the fact that certain changes have been seen in the thyroid in some of the few cases of adiposis dolorosa which have come to autopsy, the author believes that the condition may depend upon a disturbance of nutrition due to some change in the internal secretion of the thyroid gland. Accordingly, he administered thyreoidine, two pastilles daily; omitting this and substituting thirty grains of potassium iodide every tenth day. After a month of this treatment the patient reported some general improvement and a decrease in weight amounting to about seven pounds.

ROUSSKY VRATCH

July 12, 1903.

1. On Chronic Alcoholic Delirium. By S. A. SOUKHANOFF, and I. N. VVEDENSKI.
2. A Case of Severe Streptococcus Infection. Injections of Antistreptococcus Serum. Recovery. By V. A. BRITNIEFF.
3. A Case of Larvated Sepsis (Concluded). By N. A. IVANOFF.
4. A Case of Primary Melanosarcoma of the Eyelid. By A. V. LOTINE.

1. **Chronic Delirium Tremens.**—Soukhanoff and Vvedenski analyzed the material of the Moscow clinic as regards the statistics of alcoholic delirium. They included only cases of chronic alcoholic delirium in which the presence of insanity of any other type could be excluded. They found that out of 4,813 insane registered in the clinic since its opening, there were 33 cases of chronic alcoholic delirium. Of these, 30 were in men and 3 in women. Of 29 cases in which the heredity was noted 20 showed alcoholism in the parents, principally in the father; three patients showed nervous or mental diseases in the immediate family. Heredity was therefore present in 96.55 per cent., and these figures, according to the authors, showed conclusively enough the hereditary nature of chronic alcoholism. So far as the small number of cases observed warrants a conclusion, chronic alcoholic delirium develops much later in life in women than in men, and this is because women begin to abuse liquor much later than men. The authors call attention to the loss of hearing which is observed in a number of cases of chronic alcoholic delirium. In 13 cases among those analyzed this physical sign was present in a marked degree.

2. **Antistreptococcus Serum.**—Bretnieff reports a case of severe streptococcus infection, in which he obtained success with the use of the serum which is intended to neutralize the action of this germ. The case reported was very complex. The patient, a girl aged sixteen years, had been suffering from dysentery for some years before admission. In 1901 she was seized with an attack of influenza, followed by pneumonia in the middle lobe of the right lung. On the third or fourth day of the pneumonia a pleurisy with effusion developed, and was followed by an empyema. Erysipelas of the face developed during the course of the empyema. On examining the pus removed from the pleura, it was found to contain the streptococcus. Injections of antistreptococcus serum were given, six doses being administered in all, during as many days. The effects of the serum were quite striking. At first the temperature was lowered a few tenths of a degree, then, after about two hours, it rose again very slightly, and half an hour later an abundant perspiration appeared, the temperature gradually falling to normal. Ten hours after the injection the fever began to rise again, and so the temperature could be kept down by one injection daily. The pulse improved very markedly after these injections, so that during the treatment a moderate amount of stimulants was sufficient. The general condition was very markedly improved after each injection. The patient made a very good recovery, and while the virulence of the pus taken from the chest before the injections was such that it killed a guinea pig in twenty hours, the pus taken after the injection evoked only a slight rise of temperature in animals.

4. **Primary Melanosarcoma of the Eyelid.**—Lotine reports a case of melanosarcoma of the eyelid in a man aged twenty-six years. The growth arose with a broad base from the edge of the lower right eyelid, and included almost the entire sur-

face of the latter, partly closing the eye and partly hanging over the cheek. It was spherical, dense, moist, bleeding on the removal of crusts, and was dark-brown, in places black. Its size was that of a small apple. The eyelid was averted and was œdematous, and the veins around the parts were dilated. The left submaxillary and parotid glands formed dense swellings of the size of a child's head, and there was a large ulcer at the lower part of this swelling. On microscopical examination, the growth was found to be a melanosarcoma. Such cases are rare, but not so rare as they are stated to be in text books. Thus, Kastalskaya collected fifty cases from literature up to 1899, and since then the present author has been able to find ten additional instances, making in all sixty cases of primary melanosarcoma.

AMERICAN MEDICINE

September 19, 1903.

1. Labia Urethræ and Skene's Glands. (*Illustrated.*)
(*Concluded.*) By HOWARD A. KELLY.
2. The Rational Treatment of Pulmonary Tuberculosis, with Report of Cases, By F. M. POTTENGER.
3. The Treatment of Chronic Round Ulcer of the Stomach, By FRANK H. MURDOCH.
4. The Bacillus of Syphilis, By JUSTIN DE LISLE.
5. Placenta Prævia and Its Treatment, with Special Reference to Combined Version, By DANIEL LONGAKER.
6. A Contribution to the Prophylaxis of Venereal Diseases, By G. MORGAN MUREN.
7. English Surgery as Practised by Richard Wiseman, Serjeant Surgeon, in 1676, By JOHN DEVINNE SINGLEY.

1. **Labia Urethræ and Skene's Glands.**—Kelly's article does not lend itself to abstracting, since much of its value depends upon the numerous illustrations. The conclusions which end the article indicate very clearly the ground covered by the author. The conclusions are:

"(1) That one often finds definite labia overlapping the urethral orifice. (2) That their function is protective and in part sexual. (3) That attention must be more regularly directed to Skene's glands. (4) That these structures are veritable glands (Schüller). (5) That their function is to lubricate the labia urethræ, and is also largely sexual. (6) I call attention to the simple method of constructing a hairpin speculum to expose the orifices of these glands. (7) I present a simple and safe method of injecting them, a decided improvement over the hypodermic syringe. (8) I call attention to two cases in which smegma bacilli in large numbers were lodged in the glands."

2. **The Treatment of Tuberculosis.**—Pottenger reports a total of seventeen cases of tuberculosis treated by him. He does not advocate any single form of treatment. On the contrary, he believes in using such forms of treatment, by drugs or otherwise, as experience has shown to be of use. We note the two following points as being somewhat out of the usual: (1) He believes in the efficacy of tuberculin and similar culture products. He asserts that by their use the pa-

tient's chances of cure are increased by at least 20 per cent. He has given in all about 7,000 injections and has never seen any harm result. (2) In certain cases the author has seen great good follow intratracheal injections of various remedies. The remedies the author has used are two: (a) Sterilized olive-oil containing 4 per cent. menthol, 4 per cent. camphor, and 2 per cent. iodoform, and (b) izal, 1 to 10 per cent., in Price's redistilled glycerin. Of the latter the largest dose the author used is five drachms, although much larger doses can be tolerated. After the injections are made the author places his patients on a couch, with the hips elevated and the shoulders depressed so that the injected fluid may have the chance to invade the apices of the lungs and trickle into the cavities to be treated. The rest of the advice given in the paper does not differ materially from that usually offered.

4. **The Bacillus of Syphilis.**—De Lisle asserts that he has discovered the bacillus of syphilis, that he has isolated it in pure cultures and that he has, by inoculation of the microorganism, produced, in laboratory animals, a disease whose lesions are comparable to the lesions of syphilis in man. There is one great merit to the author's paper, it lacks mystery. The reader can, if he wish, repeat the experiments for himself, and, presumably, obtain the bacillus of syphilis in pure culture in a test tube. The various necessary laboratory manipulations are given in detail, and a technical description is given of the bacillus and its staining and culture characteristics. The author's conclusions, in his own words, are as follows: "(1) This microbe is found in all patients during the secondary manifestations of syphilis. (2) This microbe is agglutinated or clumped by the serum of individuals with secondary syphilis, but no reaction takes place with the serum of healthy subjects. (3) This microbe can be grown after having passed through a porcelain filter. (4) The direct inoculation of animals with the blood of syphilitics during the secondary manifestations causes the production of a hard ulcer, involvement of the lymphatic glands, paraplegia, etc. (5) Inoculations of the laboratory animals with cultures of this microbe occasion special lesions comparable to those observed in syphilitics. (6) It combines with the special sensitizing body (sensibilatrice) generated in the organism of animals vaccinated with syphilitic products. (7) Cultures of this bacillus are without effect when inoculated into syphilitics. (8) Like syphilis in man, this microbe dies with the infected animal."

5. **Placenta Prævia; Its Treatment.**—Longaker does not advocate the exclusive use of any one plan of treating placenta prævia. He has had in all 17 cases to deal with and reports only one maternal death. In suitable cases he is strongly in favor of delivery by means of combined version. After the foot is brought down the patient should be allowed to complete the delivery practically unaided. If the case is seen sufficiently early labor should be induced just so soon as the child is visible. Combined version is particularly suitable for those cases in which la-

bor is not imminent, that is, from the twenty-eighth to the thirty-sixth week of gestation.

MEDICAL RECORD

September 19, 1903.

1. Differential Leucocyte Count in the Early Days of Typhoid Fever, By HENRY A. HIGLEY.
2. A Case of Leucosarcoma of the Chorioid, By THOMAS R. POOLEY.
3. The Range of Osteoplasty as an Aid in the Conservative Surgery of Bone Traumatism. By THOMAS H. MANLEY.
4. Some of the Mistakes We Have Inherited. By MARK I. KNAPP.
5. Early Symptoms of Dementia Præcox. By A. R. DIETENDORF.

1. **Leucocyte Count in the Early Days of Typhoid.**—Higley records the results of his investigation in great detail. His results vary quite markedly from those obtained by Thayer. The author summarizes his results as follows: (1) Many cases of typhoid fever, contrary to general supposition, show the characteristic differential leucocyte count within the first week of the disease. (2) The definite value of the differential leucocyte count in the early diagnosis of typhoid fever is as yet problematical; but it seems certain that when used in addition to the total leucocyte count, more information may be obtained than by employing the total count alone.

3. **Osteoplasty.**—Manley considers the indications for osteoplasty and discusses the various methods. (1) Primary osteoplasty can rarely be resorted to with advantage. In a few selected cases it may be of service. (2) Secondary osteoplasty has a very wide range of application. The author describes these operations: (a) Osteorection, the bloodless correction of deformity during the plastic stage of repair. (b) Osteoclasia, the refracture of bone shafts. (c) Osteotomy, the division of bone shafts, alone or combined with osteorection. (d) Osteectomy, the excision of bone.

4. **Some Mistakes We Have Inherited.**—Knapp asserts that our inherited beliefs regarding the following subjects are in error: (1) Vomiting; (2) appetite; (3) the eating of stale bread, and (4) the expediency of eating sugars and fruit for their laxative effect. His own views are these: (1) There is no such thing as reflex vomiting. Vomiting is always due to spasm either of the stomach or of the intestines, and this spasm is in turn always due to irritating material which acts directly upon the mucous lining. Green vomit is due to the presence of green mould and not to bile. Bile may be present, but bile is yellow and not green. Chocolate-brown colored vomit is most often due to red mould. One must never assume the presence of blood; one should prove its presence if it is suspected. (2) Appetite is the sensation produced by a contracted stomach. When the stomach relaxes appetite vanishes. (3) Stale bread is not more easily digested than fresh bread. Clinical experience is misleading. It is the quantity that makes the difference. Fresh bread is more palatable than stale bread, hence more of it is eaten at a time. Bulk for bulk there

is no difference in the digestibility of stale and fresh bread. (4) Sugars and fruit certainly do move the bowels. It is because they ferment and decompose and so give rise to irritating products. In small quantities they may do good, in large quantities they are absolutely dangerous.

5. Dementia Præcox.—Diefendorf considers only the early symptoms of dementia præcox. While there are three clinical varieties of this form of insanity, it is not necessary to consider them separately since their early symptoms do not vary materially. The early symptoms are best grouped into four classes, giving the following early types of cases: (1) Those in which there is simple mental deterioration without hallucinations or delusions; (2) those in which a few indefinite delusions appear; (3) those of a neurasthenic character and, (4) those of a hysteroid character. The author illustrates each of these types of cases by reports of histories. Diefendorf urges that the general practitioner should become familiar with the early manifestations of this very common form of insanity, since many cases are only recognized after it has become so far advanced that its victims have reached the stage where they are a menace to themselves, their family, and the community.

MEDICAL NEWS.

September 19, 1903

1. The Ætiology and Chemical Pathology of Gall-stones,
By C. A. HERTER (*To be concluded*).
2. The Modern Treatment of the Acute Suppurations of
the Knee-joint, By ARPAD G. GERSTER.
3. What Ought We to Expect from Cardiac Drugs in
Heart Weakness? By O. T. OSBORNE
4. A Study of Good Results in Hip Disease,
By V. P. GIBNEY.
5. Chronic Nephritis Without Albuminuria,
By ARTHUR R. ELLIOTT

2. The Treatment of Acute Suppurations of the Knee-Joint.—Gerster divides the acute purulent inflammations of the knee-joint into three groups: (1) Metastatic or pyæmic suppurations. (2) Suppurations due to osteomyelitis. (3) Traumatic suppurations. Diagnosis of pus in the knee joint should present no difficulties. If, however, there should be any doubt, as to the presence of pus, the aspirating needle must be resorted to at once. The treatment will depend, to a great extent, on the origin of the infection. (1) *Metastatic or pyæmic suppuration.*—Ordinarily the onset of this trouble is mild, its course inclined to be chronic. The local symptoms are not very salient and are often obliterated by those of the general condition, so that they may be overlooked both by patient and physician. Occasionally, however, they will be very acute and obtrusive. The mildest infantile forms show even a tendency to spontaneous cure, and ought not to be meddled with. If the local symptoms are troublesome they will demand surgical intervention. First evacuation by puncture, and if the collection be ropy and thick irrigation must be resorted to. Rapid reaccumulation will demand incision and drainage. (2) *Suppuration due to osteomyelitis.*—Osteomyelitis is eminently a disease of adolescence, being most

frequent in the years just preceding puberty. In the lower extremity the place of predilection is the neighborhood of the knee-joint, or more precisely, the lower epiphysal line of the femur, or the upper one of the tibia. In every case of osteomyelitis attacking the tibia or femur near the knee, it is the duty of the physician to watch the joint and not overlook an effusion distending it. According to our present ideas every osteomyelitic focus should be freely opened as soon as the diagnosis is made. If this were always done early extension to the articular cartilages could at times be avoided. When the knee joint is once involved the route of the infection must be found and excised and arthrotomy performed. In cases of virulent infection this may not be sufficient. In such cases Mayo's method of opening the joint will give, usually, good results. It consists of the transverse incision of the infected knee-joint, passing from condyle to condyle just above the patella, and, of course, dividing the quadriceps tendon. Ollier, the French surgeon, supplemented Mayo's incision by advising the extirpation of the crucial ligaments. The leg if necessary may be sharply flexed at the knee, which will permit packing the joint cavity with gauze. (3) *Traumatic suppuration.*—These cases of knee-joint infection are, as a rule, the most dangerous. They ordinarily call for the radical operation (Mayo's) and not infrequently amputation will have to be resorted to. This latter measure must not be postponed too long, when needed, as the patient will otherwise perish. The experience gained during the Spanish and Transvaal wars would seem to indicate that gunshot wounds of the knee are usually sterile, and may be treated conservatively. Up to and including the Franco-Prussian war attempts to save the leg by conservative surgery, when the knee-joint was involved, gave a mortality at times as high as 100 per cent. Whether the experience of civil life at the present time gives similar results to those obtained in the recent wars the author is unable to say.

3. Cardiac Drugs.—Osborne asserts that the modern custom of leading "the strenuous life" has led to a great increase in the variety of cardiac affections which call for treatment. It is well, therefore, to review the drugs at our command reputed effective in combating cardiac weakness. There are two chief types of cardiac weakness, the acute and chronic. The author does not take up their consideration in detail, but notes that they must be differentiated. The drugs applicable to the treatment of these two types of lesions are (a) the cardiac stimulants and (b) the cardiac tonics. (a) The stimulant drugs are, in their order of efficiency, alcohol, camphor, nitrite of amyl, nitroglycerin, and ether. (b) The tonic drugs are digitalis, strophanthus, sparteine, cactus, convallaria, adonidine, and suprarenal preparations. There are two drugs that are both tonic and stimulant, and belong to both classes, they are strychnine and caffeine. The author takes up the indications for each one of these drugs and considers also their contraindications.

5. Chronic Nephritis Without Albuminuria.—Elliott reports a number of cases for the pur-

pose of illustrating and emphasizing the fact that albumin may be absent from the urine in even the dangerous stages of chronic nephritis. His paper ends with a number of conclusions which we condense as follows: (1) Latency of symptoms is so constant a characteristic of chronic interstitial nephritis as almost to constitute its most salient feature. (2) Latency of symptoms does not constitute a point of absolute distinction between the early and the advanced stages or between the mild and severe forms of the malady. (3) Symptoms are especially liable to be absent and urinary signs uncertain during the early stages of chronic interstitial nephritis. (4) Albumin is absent from the urine of this form of nephritis with great frequency. It may frequently be absent during the early stages. It may occasionally be absent until the disease enters the final stages. Albuminuria, therefore, constitutes a very unreliable diagnostic sign in this disease. (5) More reliable evidence of renal change is diminution in the gross amount of urinary solids, and especially significant is the presence of casts. (6) Chronic interstitial nephritis never exists as a clinically recognizable condition without the presence of casts in the urine. Although renal diagnosis cannot be founded on casts alone, they constitute a corroborative sign of high clinical value, when associated with other indications. (7) The secondary circulatory changes following chronic interstitial nephritis are so constant and characteristic as to furnish, in most cases, sufficient ground for the recognition of the disease before reference is made to the urine. The diagnosis should be made, if possible, from the physical signs and symptoms, the urinary indications being regarded as corroborative rather than as essential evidence.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

September 19, 1903.

1. The Subcutaneous Injection of Paraffin for the Correction of Deformities of the Nose (*To be concluded*),
By F. GREGORY CONNELL.
2. Precision in the Determination of Human Parasites,
By HENRY B. WARD.
3. Uncinariasis in the South. Further Observations,
By CLAUDE A. SMITH.
4. Occurrence of *Strongyloides intestinalis* in the United States (*Concluded*),
By MARSHALL LANGDON PRICE.
5. The Surgical Treatment of Undescended Testicle. A Further Contribution, By ARTHUR DEAN BEVAN.
6. Apoplexy, By T. B. GREENLEY.

2. **Human Parasites.**—Ward makes a plea for more precision in the classification and report of cases due to endoparasites. He confines his remarks chiefly to the parasitic worms. Of these there are at present about sixty-eight varieties known. He gives a table of them which also shows the regions in which they are known to occur. A distinction should be made between true parasites and occasional and accidental parasites. Matters are further complicated by the existence, in the literature, of another class to which the name pseudoparasites must be given. Some of these are animals that have been accidentally ingested and, while they may at times give rise to symptoms, they cannot be regarded as really

parasitic in their nature. There is another group of pseudoparasites that has been brought into existence either through accidental contamination of the discharges, through deceit on the part of patients, or through the ignorance of the observer. In this way food particles of both animal and vegetable origin have been described as parasites and "in many cases on record such things as earthworms, chicken entrails, etc., have been introduced into the rectum or vagina and have been subsequently reported by the attending physician as undoubted human entozoa of a remarkable character!" The author, therefore, concludes that all new and rare species of parasites should be submitted to the scrutiny of an expert helminthologist before being reported.

3. **Uncinariasis in the South.**—Smith asserts that the disease is not uncommon in the Carolinas and Texas. He goes quite fully into the life history of the parasite and into its effects on its host. He has made the observation that every person who has had ground itch will have, up to seven or eight years subsequently, the eggs of the parasite in the stools. He believes that infection may occur either directly through the skin or by the mouth. One of the curious symptoms of the disease is the atrophy of the genital organs; a boy or girl of seventeen or eighteen being no better developed than a healthy child of ten. The treatment is by thymol and, if the case is seen early, the prognosis is good.

5. **The Surgical Treatment of Undescended Testicle.**—Bevan writes on the best operative method to be employed, and has this to say: "I desire to urge the general adoption of operative treatment for undescended testicle. By the operation the testicle can be placed in its normal position in the scrotum, where it certainly has a better chance of developing into a normal organ than it has if it is allowed to remain in its abnormal position. At the same time, the patient is cured of the actual or potential hernia, which is always present, and is freed from the dangers and discomforts which result from the malformation, and this can be accomplished by an operation which is as safe and as sure as the operations for radical cure of hernia, and, to my mind, is much more urgently called for. The operation requires of the operator a very clear conception of the normal anatomy of the region and the abnormal anatomy of the malformation, but otherwise presents no greater difficulty than does a Bassini hernia operation."

BOSTON MEDICAL AND SURGICAL JOURNAL

September 17, 1903.

1. The Ill Health of Francis Parkman,
By GEORGE M. CHUTE.
2. Minor Surgery in Country Practice,
By CLIFFORD S. CHAPIN.
3. The Dietary Treatment of Constipation,
By HENRY F. HEWES.
4. Hyperchlorhydria,
By ROSCOE W. SWAN.

3. **The Dietary Treatment of Constipation.**—Hewes asserts that in the treatment of constipation we must bear in mind two general propositions. (1) The patient has either some definite

pathological lesion or condition, such as obstruction of the intestine, lesion of the nerve mechanism or its function, or general disorder of metabolism, or (2) he is living under a faulty condition of hygiene, as a result of which the natural forces or stimulants of the physiological function are lacking. In either of these cases it is important that the general hygienic treatment of the constipation be first attended to, and it is to this part of the treatment that the author devotes his attention. Experience has taught that there are three things that must be insisted upon if treatment is to be successful: (1) The habit of a regular period of defecation. (2) A proper amount of physical exercise. (3) A proper diet. The author considers it necessary to discuss only the last of these three requirements. *The Diet.*—It is first necessary to establish the amount of food and the kind needed to sustain a healthy existence. This the author fixes by the number of calories required in the twenty-four hours and the foods best adapted to furnish them. It is further necessary to consider which foods have a special action in promoting peristalsis and how they do so. Such foods, classified according to the way they tend to produce bowel movements, are of three kinds: (a) Those that act by reason of nonabsorption if given in excess (fats) or which contain a large amount of residue which acts mechanically (vegetables). (b) Those which liberate organic acids or other substances which either locally or through absorption increase intestinal activity. In this class are certain fruits such as the tamarind, prune, plum. (c) Those which are prone to undergo fermentation in the intestine, with the formation of organic acids. This class includes the carbohydrate foods generally. The author gives a diet list based on these considerations. In general it may be said that the author's treatment consists in adding to an ordinary mixed diet a sufficient quantity of food which either by its undigestible residue, its contained organic acids, or its proneness to fermentation will produce such an amount of either local or reflex irritation as will cause the bowel to expel its contents.

4. **Hyperchlorhydria.**—Swan prefers in the treatment of this condition a mixed diet preponderating in albumens and containing only small quantities of starchy foods. The excessive production of HCl is best controlled by belladonna or its alkaloid, and, if this is not sufficient, the acid is best neutralized by a mixture of calcined magnesia and sodium bicarbonate. Carlsbad salts will at times be of use in reducing the production of HCl. Other measures that will be found of use in the treatment of this condition are intragastric sprays of nitrate of silver, large injections of olive oil, massage, change of climate, and cold sponging.

THE DUBLIN JOURNAL OF THE MEDICAL SCIENCES.

July 1, 1903.

1. Two Cases of Lymphatism. By GEORGE PEACOCKE.
2. The Late Cholera Epidemic in Egypt,
By GEORGE FREDERICK ALEXANDER SMYTHE.
2. Notes on a Year's Asylum Work, By W. R. DAWSON.

3. **A Year's Asylum Work.**—Dawson mentions five patients who were subjected to thyreoid treatment during the year. One of these, a case of recurrent melancholia, which had been treated the same way in the previous year, continued to derive considerable benefit from five-grain doses of the dried gland thrice daily, given only during the attacks, which appeared to be mitigated thereby, both as to severity and duration. In the other four cases, which included two of melancholia (one stuporose), one of katatonia, and one of subacute mania, the drug was given in large doses for a short period, during which the patient was treated as if suffering from a slight fever. The first patient, one suffering from melancholia of about a year's standing, received four hundred and sixty grains in nine days, and reacted well physically. No change took place at first, but the patient began to improve, and was discharged on probation in about three months. Unfortunately the improvement was not permanent. The katatonic patient received six hundred and thirty grains in eleven days, but although there was fair physical reaction, any mental improvement was very transitory. The case of stuporose melancholia was treated with four hundred and forty-five grains, spread over eight days, and showed no mental improvement, though this is one of the cases where such might have been looked for. The patient suffering from subacute mania took four hundred and seventy-five grains in nine days, and showed marked, but not very permanent, improvement.

SEMAINE MEDICALE.

September 9, 1903.

Postoperative Benign Icterus,

By R. DE BOVIS.

Postoperative Icterus.—De Bovis gives a number of cases where he noted icterus after operation, which passed off without other symptoms. He recalls that there are cases from pyæmia, from "recall of the diathesis" after operations for cirrhosis and biliary colic, from wounds of the liver, and from chloroform poisoning, that are very grave as to prognosis. For the ætiology of the benign forms, he thinks several causes are at work, alteration of the blood, of the bile, of the liver, congenital non-resistance of the hepatic cell, reflex spasm of peritoneal origin; these, working together, cause the biliary retention.

ZENTRALBLATT FUER CHIRURGIE

August 22, 1903.

- I. New Method of Reposition for Posterior Dislocations of the Hip,
By JAROSLAV ELGART.

I. **Dislocation of the Hip.**—Elgart has found that in posterior dislocations of the hip in robust persons, that a modification of the Kocher method will bring about a reduction. He places the anesthetized patient on the floor on his back, places the knee over his own knee of the same side, then seizes the ankle to use the lower leg as a lever. The leg is then sharply depressed so that the femur is raised vertically, at the same time that the femur is rotated inward by rotating the lower leg outward. With the free hand, the prominent femoral head is pressed outward to facilitate its entrance into the acetabulum.

Book Notices.

Obstetrics, A Textbook for the Use of Students and Practitioners. By J. WHITRIDGE WILLIAMS, Professor of Obstetrics, Johns Hopkins University; Obstetrician in Chief to the Johns Hopkins Hospital; Gynecologist to the Union Protestant Infirmary, Baltimore, Md. With Eight Colored Plates and Six Hundred and Thirty Illustrations in the Text. New York and London: D. Appleton & Company, 1903. Pp. xxii-845.

It has for a long time been fashionable in foreign circles to regard American obstetrics and American obstetrical views as having their basis in German and Austrian teaching, with a liberal admixture of French, Scotch, and English. Until very recently our obstetrics has been regarded as on a plane with our reputed former ignorance of internal medicine, surgery, and gynecology. "*Nous avons changé tout cela*," and Dr. Williams's book will make it clear, if it has not been understood before, that keen clinical observation and pathological research in midwifery have gone hand in hand in this country with the most modern conceptions and the most modern teaching.

The book contains upward of 600 illustrations, the greater part of them original. Except for Müller's encyclopædia, we are not acquainted with any work in which the illustrations depict more clearly the different phases of the birth act, for instance; and the pictures of obstetrical procedures and of anatomical and pathological conditions are of the kind which we have learned to expect from Johns Hopkins sources.

The impression which the reader of the book will gain, above all others, is that it is a scientific exposition of its subject. It gives a clear conception of the modern status of obstetrics and of the great advances which recent years have made in midwifery. It shows, above all other things, how much it is necessary for the competent accoucheur to know at the present time, and how important it is for him to be a man of thorough and broad training. It furnishes the best of all arguments, incidentally, for the abolition of the midwife.

The arrangement of the work follows the usual lines, but the chapters on anatomy and physiology, including those on embryology, are particularly full and thorough. It is especially pleasing to note that the embryological data are not passed over in a slurring way, as is so frequently done in obstetrical textbooks, but that due emphasis is given to the important phases of development. The illustrations in this part of the work are also mainly new and a great many of them are original.

Practically, the book is unique in setting forth the newer ideas of the obstetrical art. The author emphasizes the necessity of limiting internal examinations during labor, and in cases of primiparæ in which there is a vertex presentation with no unusual delay, he advises no vaginal examination whatever. In this respect, we believe, he voices the sentiments of most obstetricians. He also urges the use of rubber gloves, especially after recent contact with septic material. Williams is conservative in hold-

ing in reserve the use of the forceps, and lays down strict indications for its use.

The artificial induction of labor is well considered, and the author's views are, we think, in consonance with those of the men of best judgment and experience. We are glad to note that he recommends as the best method dilatation by means of the Champetier de Ribes bags. Krause's method, which is very popular, not only has the element of uncertainty, as mentioned by the author, but is apt to rupture the membranes. Manual dilatation is the author's preference for rapid dilatation, and no mention is made of the newer instruments for this purpose, such as Bossi's and its various modifications. Even if the author could have included their description in his manuscript, it is just as well, we think, that it is omitted from this edition, since the matter is still one under active discussion.

The author's summary as to our ignorance concerning the actual ætiological factor of puerperal eclampsia, regarding it as he does as due to some still unrecognized poison circulating in the blood, is most refreshing when contrasted with the dogmatism almost weekly encountered in the medical press. His methods of treatment, too, are in harmony with the best views, Williams condemning the use of pilocarpine unreservedly and being very skeptical as to the efficiency of *veratrum viride*.

The chapter on puerperal sepsis is sound, temperate, and judicious. It is the chapter which should appeal most strongly to the general practitioner, for it is to him largely that we must look for a diminution in puerperal morbidity, since he attends many more cases than the specialist does.

We cannot note each chapter in this large book. We have cited sufficiently, we think, to show that the work is an important one, that it is scientific, that it is modern, and that it is therefore a safe and sane book to put into the hands of the student. Throughout the work, asepsis and aseptic technics are insisted upon, and the keynote of sensible conservatism is sounded without monotony. For the practitioner and for the specialist there is no better work. We have not the slightest doubt that the author's modest hope of having the book used as a laboratory guide will be realized, and we feel certain that it will long rank as one of the important works on the obstetrical art.

A System of Physiologic Therapeutics. Edited by SOLOMON SOLIS-COHEN, A. M., M. D., Senior Assistant Professor of Clinical Medicine in Jefferson Medical College, etc. Volume V. Prophylaxis—Personal Hygiene—Civic Hygiene—Care of the Sick. Illustrated. Philadelphia: P. Blakiston's Son & Company, 1903. Pp. xvii-539.

This is one of the most important volumes of the *System*, and its importance has not been overlooked in selecting its authors. As it deals with the origin and prevention of disease, this part of the work was entrusted by the editor to two trained pathologists, Dr. McFarland and Dr. Babcock, of Philadelphia. All the more recently ascertained facts in reference to the origin, spread, and prevention of disease here find expression. Perhaps these subjects are more relevant to the science of medicine than to that of therapeutics and would form a better introduction

to a system of medicine, yet they augment the value of the work on therapeutics, whose proper consideration must open the door to a wider range of inquiry.

The subject is logically divided into the consideration of health and that of its defenses. Next follows a chapter on the intrinsic factors of disease, which naturally suggests the following chapters, on the extrinsic factors, which are divided by the authors into the inanimate and the animate. The former include the physical causes, such as mechanical, heat, cold, electricity, etc.; the latter, the parasites, vegetable and animal. Under the extrinsic causes are also discussed the poisons which arise from biological processes, such as ptomaines, toxalbumins, toxins, and venoms.

Section II deals with the diffusion of disease, its methods of transmission by animals, by foods, and by social intercourse, and concludes with a discussion of the modes of parasitic invasion.

The prevention of disease forms the subject for Section III, dealing specifically with immunity, the artificial defenses (asepsis, antisepsis, and disinfection), and concluding with a full consideration of the prevention of the dissemination of disease by animals, such as mosquitoes, flies, etc. The next section is devoted to the study of the prophylaxis of special infections.

Professor Henry Leffmann, whose name is a guarantee for careful work, is the author of the chapter on Civic Hygiene; he was assisted by Dr. Myer Solis-Cohen in the preparation of the chapter on Domestic and Personal Hygiene.

It would be invidious to compare any volume of this monumental work on therapeutics with another. The reviewer has been agreeably surprised at the persistent high standard which each volume shows as it appears. He would say, however, that if the palm of victory for good endeavor were to be bestowed, the donor would find it difficult to decide to which volume to give it. In all justice it may be said that this volume has not been surpassed in the execution of its plan, in the accuracy of its presentation of facts, or in the value of its deductions by any other volume.

Pathology of the Skin. An Introduction to the Histology, Pathology and Bacteriology of the Skin, with special reference to Technique. By J. M. H. MACLEOD, M. A., M. D., M. R. C. P.; Assistant in the Dermatological Department, Charing Cross Hospital; Physician to the Skin Department, Victoria Hospital for Children. With Eight Colored and Thirty-two Black and White Plates. Philadelphia: P. Blakiston's Son & Co., 1903. Pp. vii-408. (Price, \$5.00.)

This is one of the most valuable contributions to dermatological literature that have yet appeared. The book does not purport to be a complete treatise on skin pathology, but deals thoroughly with the anatomy, pathology, and bacteriology of the skin. That the work is a pioneer along these lines can be seen by a mere glance at its pages. The author has paid special attention to technical details throughout, and for this reason the book will be found to be invaluable to the general pathologist as well as to the specialist. The student will find everything

needed in his studies so far as aetiology and pathology are concerned. For diagnosis and treatment other works must naturally be consulted.

After describing very fully the apparatus requisite for histological technics, the preservation, imbedding, cutting, and staining of skin material, the author takes up the embryology of the skin, its histology, and lastly the pathology. The arrangement of the subject matter is at once unique and practical, for the pathology of the various structures of the skin is taken up in separate chapters and discussed individually. About one fifth of the work is devoted to the bacteriology of the skin. A careful review of the various chapters does not reveal a single statement not in accord with the most recent research.

In his preface the author very modestly disclaims completeness for his handbook, but we fail to find a single omission of any fact that the laboratory student should know. The book is entirely modern in every particular, and so far as histological methods in general are concerned, might easily serve as a handbook for this purpose. Special mention must be made of the illustrations, particularly those executed in colors, which leave nothing to be desired so far as accuracy and beauty are concerned. On the whole, we welcome this work most cordially and take pleasure in commending it to the profession.

Le Dispensaire antituberculeux. (Avec 16 figures intercalées dans le texte.) Par le Docteur SAMUEL BERNHEIM, Président de l'Œuvre de la tuberculose humaine; Rédacteur en chef de la *Revue internationale de la tuberculose*. Paris: Rousset, Editeur. Pp. 5-102.

The subject of this pamphlet is the equipment and work of the various dispensaries for the prevention and treatment of tuberculosis established within the last three years in France and Belgium. The plans of the buildings are reproduced, and the work accomplished is described. This is not confined to the treatment of ambulatory cases, but includes the education of the public, the disinfection of sick rooms, the gratuitous distribution of sputum receptacles, etc. The pamphlet contains many valuable hints to those interested in combating tuberculosis in large cities.

Recherches cliniques et thérapeutiques sur l'épilepsie, l'hystérie, et l'idiotie. Compte-rendu du service des enfants idiots, épileptiques, et arriérés de Bicêtre pendant l'année 1901. Par Bourneville, avec la collaboration de MM. AMBARD, J. BOYER, CROUZON, L. MOREL, PAUL-BONCOUR, PHILLIPPE, ET OBERHUR. Volume XXII. Avec 14 figures dans le texte et 16 planches. Paris: Felix Alcan, 1902.

This is an account of the service at Bicêtre and Vallée during the year 1901, and deals with the treatment of idiotic children, epileptics, and the deficient. It is one of a series of annuals issued from that institution, and is worthy of every one's perusal as showing what can be done for those unfortunates who are generally regarded in our country as beyond our help. The manner in

which, by intelligent and patient effort, an idiotic child is educated to care for its personal wants is little short of marvelous. A paralytic child is taught to walk or to use its hands if there is any power remaining in them; and those who are backward in speech gain facility of language sufficient to impart a knowledge of their needs and wants.

We have no institution in this country that begins to do anything like this work, and yet no one can deny that we have plenty of such children deserving of some attempt to better their condition. In the one class of cases alone, that of the deficient, any one who attends the clinics in our large cities cannot but be appalled by the number of such children who are ruthlessly turned away because there are no schools or institutions provided especially for them. Reading Bourneville's report of the good work done by the Sisters at Bicêtre, may stir some to emulation in our country.

Besides the report proper, the volume contains articles by Bourneville and his collaborators upon cases and pathological conditions as well as upon therapeutics. Among these is a contribution to the treatment of the vertiginous form of epilepsy by monobromate of camphor; an interesting article on the changes which occur in the femur of hemiplegic children and their cause; a description of a Mongolian idiot; with full clinical and post-mortem data and a complete histological study of two cases. He considers Mongolian idiots quite rare. There is also a very interesting account of a case in which was the unusual combination of true and pseudoporencephalism.

On Siphonage and Hydraulic Pressure in the Large Intestine, with Their Bearing Upon the Treatment of Constipation, Appendicitis, etc. By RALPH WINNINGTON LEFTWICH, M. D. Late Assistant Physician for the East London Children's Hospital. Author of *An Index of Symptoms*, etc. New York: William Wood & Company, 1903.

This book opens by proving that peristalsis in the large intestines, comparable in force to that seen in the small intestines, is impossible. Annular fibres, similar to those found in the small intestines, are not seen at all in the colon, and in their stead are found irregularly placed, scattered fibres which are without either the power or arrangement to produce forcible peristalsis. Longitudinal fibres similar to those seen in the small intestine are present, but these alone are unable to occasion peristalsis. The fixed ridges and sacculi of the large intestines and the position and fixation of the colon are also obstacles to any forcible peristaltic action which might be caused by arcuate muscles such as are present in the large intestines.

The author maintains that the existence of strong peristaltic action in the colon has never rested upon scientific proof, but rather upon false analogy between the colon and the small intestine. He concludes, therefore, that, although it does exist to a slight degree, it is of only secondary importance.

He alleges that the small intestine, emptying

as it does into the colon, must of necessity exert hydraulic pressure. The author then compares the colon to a siphon, the cæcum being the reservoir, the short ascending colon the ascending tube, and the combined descending colon and rectum the descending tube of the siphon. Rigidity of its walls, which is essential to siphonage, is seen in the large intestines, and is caused, says the author, by the longitudinal fibres in a state of tonic contraction. He also finds the contents of the large intestines quite susceptible of siphonage.

Among the causes of absence of siphonage, he mentions the relaxed condition of the muscular system, pressure of corsets on the transverse colon, excess of gas, and extreme dryness and solidity of the fæces. The phenomenon of siphonage is explained as follows: After evacuation of the large bowel consequent upon defecation, siphonage stops. We now have a vacuum in the cæcum, and there remains a fixed fæcal column which extends from the lower part of the ascending colon to a corresponding point in the descending colon, called the balance point, which is found at the junction of the descending colon and the sigmoid. The vacuum is broken partly by gas and partly by the resumption of the flow from the ileum. The cæcum now slowly fills, and when it is full the stream enters the ascending colon: here it meets the balanced fæcal column, and hydraulic pressure comes to its aid to push the bottom of the fæcal column beyond the balance point. Siphonage then ensues, and, except when the contents are very liquid, stops short at the internal sphincter. This ends the involuntary act. The voluntary act, or defecation, then takes place, and the rectum is emptied.

Besides peristalsis, hydraulic pressure, and siphonage, the author finds a fourth propulsive agent, which is instrumental principally in cases of serious intestinal obstruction. "When there is complete obstruction, e.g., in the sigmoid flexure, the flow from the ileum, with its power multiplied hydraulically, will in time overcome this muscular resistance. And, further, that as regurgitation through the ileocaecal valve is difficult, elongation must necessarily ensue." The tugging of the mesocolon, together with the straining of the bands, in their efforts to bring the intestine back to its normal length, will produce "snakelike undulations" which have hitherto been described as "visible peristalsis." But they differ greatly from true peristalsis. When the obstruction is only partial, the resistance of the tæniæ will aid in expelling the contents. This resistance of the tæniæ cannot go on indefinitely, however; the result is paresis, and when this takes place, from the above mentioned or from other causes, the V-shaped bends of the transverse colon arise.

These theories of the author's are then taken up with reference to constipation, typhoid fever, appendicular inflammation, etc. In the treatment of typhoid fever the author advises having the patient sit up for about ten minutes at a time every three or four hours, thus allowing siphonage to act, and preventing overloading of the cæcum, "which accumulation obviously increases

the risk of a fatal issue." He points out that a weak heart muscle renders this method of treatment inadvisable; paresis of the longitudinal bands renders it unavailable.

The author has undoubtedly given us in this little book a great deal that is new and interesting, and has set it forth in a most entertaining manner. How much influence his theories will have upon future therapeutics is hard to say. His experiments, however, are carefully worked out, and his conclusions in most instances appear to be justified. We think that all medical men will profit by reading this little book.

A Narrative of Medicine in America. By JAMES GREGORY MUMFORD, M. D., Assistant Visiting Surgeon to the Massachusetts General Hospital and Instructor in Surgery in the Harvard Medical School, Philadelphia and London: J. B. Lippincott Company, 1903. Pp. 7 to 508. (Price, \$3.00.)

This is a most fascinating book. Everybody knows or suspects that a reviewer seldom if ever reads a book under review from cover to cover—because it is not necessary. The reviewer of this particular book, however, confesses that he has read it from beginning to end, often pausing for a second or third reading of some specially charming passage, also that he has taken it to bed with him—with such avidity did he read it.

While the book might appear to a superficial reader to be little else than a series of entertaining biographical sketches, it is in reality much more than that. The story of American medicine, from colonial times to the middle of the nineteenth century is divided into epochs, and the progress of medicine in different parts of the country is separately considered. At the conclusion of each of these divisions the situation is summed up in an epigrammatic sentence more graphic than pages of an ordinary writer's details would prove, and the sentence is generally illumined with a touch of kindly humor. The author's grasp of the meaning of events and his power of setting it forth vividly place him, in our opinion, on a plane with the most admired historical writers of our times, and it will be a great pity, we think, if he does not give us more history. He is an extremely strong writer, and that fact makes us regret all the more to observe that he has allowed himself to accept the teachings of those specimens of the *Weltverbesserer*, who maintain that the tense of a verb should depend upon time alone, forgetful that this is true only of the declaratory part of a sentence. Some other blemishes we have noticed, but they are of a minor character, and doubtless they will be eliminated in a second edition, which is sure to be called for, we should say.

Something more than entertainment is to be derived from Dr. Mumford's charming book. The New Yorker, the Philadelphian, and the Bostonian will realize more than before the strength of the medical body in Charleston in the old days, and all Easterners will acquire a keener appreciation of early medical achievements in Ohio and Kentucky. We all have to thank the author for a most valuable addition to our medical history.

BOOKS, ETC., RECEIVED.

Physical Diagnosis of Diseases of the Chest. By RICHARD C. CABOT, M. D., Physician to Out-Patients, Massachusetts General Hospital; Assistant in Clinical Medicine, Harvard Medical School. Second Revised Edition. With One Hundred and Forty-seven Illustrations. New York: William Wood & Company. 1903. Pp. xvi-319. (Price \$2.50 net).

Elementary Bacteriology. By M. L. DHINGRA, M. D., C. M. Edin.; Diplomate in State Medicine, University of Cambridge; Member of the Sanitary Institute, etc. With Colored Frontispiece and Illustrations in the Text. Longmans, Green & Co., 39 Paternoster Row, London. New York and Bombay. 1903. Pp. xiv-145. (Price \$1.12 net).

Tumeurs du Placenta et Tumeurs Placentaires (Placentomes malins), avec 24 figures. C. Naud, Editeur, 3, rue Racine, Paris. 1903. Pp. 626.

Intracranial Tumors Among the Insane. A study of Twenty-Five Intracranial Tumors Found in Sixteen Hundred and Forty-Two Autopsies in Cases of Mental Disease. By I. W. BLACKBURN, M. D., Pathologist to the Government Hospital for the Insane, Washington, D. C. Illustrated by Thirty Plates and Sixty-five Microscopical Drawings. Washington: Government Printing Office. 1903. Pp. 94.

Miscellany.

Shakespeare and Appendicitis.—Much learned consideration has been adduced to show from the internal evidence of Shakespeare's plays, that he was a lawyer, a physician, and several other things. We have not, however, noticed in the quotations given in support of his medical training that any one has adduced the following from *The Taming of the Shrew* (Act iv, Scene 4):

My master hath appointed me to go to St. Luke's, to bid the priest be ready to come, against you come with your appendix.

It would seem that the prognosis of operation for appendicular inflammation was very grave in those days.

The Tympanites of Typhoid Fever.—Dr. Michael O'Connor (*Dublin Medical Journal*, September) in an article on Typhoid Fever in Western Australia, says that tympanites is always serious when accompanied by low nervous depression, and should be met by stimulants, such as strychnine and caffeine hypodermically, with spirits (good brandy or whisky) and turpentine. From the third week he finds that turpentine is a very useful medicine in typhoid fever, preventing the formation of gas, which stretches the already weakened intestines, and also acting as an antiseptic. The diet, as in diarrhoea, must also be revised. Tincture of opium, one drachm repeated in three hours, with careful attention, acts beneficially in those sudden cases of tympanites with severe depression.

Two Cases of Normal Pregnancy Following Operations for Extrauterine Pregnancy.—Donoghue (*Annals of Gynecology and Pædiatry*, July, 1903) quotes Reed as advocating the removal of both tubes, as a rule, when one of them has required an operation for pregnancy. Ferguson advocates a similar course, and Hall advises the ligation of the remaining tube, the menstrual function being thus retained, while pregnancy is precluded. In the first of the author's reported cases

the patient had an intermenstrual interval of six weeks, then a flow with discharge of shreds of membrane and a mass in the vaginal cul-de-sac which, upon incision, was found to be an hæmatocele. It was assumed that this indicated extra-uterine pregnancy. The patient recovered and the next year became normally pregnant and had a normal delivery. In the second case the patient was in collapse when seen by the author. An abdominal incision revealed the abdominal cavity filled with blood and clots. The right tube was ruptured and was bleeding. The tube was removed and the patient recovered. Two years later she became pregnant and was delivered at term without mishap. These cases suggested to the author the question as to the propriety of removing the remaining tube, if apparently healthy, when an operation is performed for the other diseased one. If it is not removed it gives the patient another opportunity for pregnancy, and it by no means follows, because a patient has had gestation in one tube that she may not also have it in the other. Cases of Tait and Kokman are cited in which a normal pregnancy intervened between two tubal ones, and two of Dührssen in which normal pregnancy followed operations for extra-uterine pregnancy. The author's opinion is that the general rule should be followed that the least possible mutilation consistent with the patient's well-being should be accomplished.

The Pathology of Graves's Disease.—Dr. Edward Blake, of London (*International Medical Magazine*, May), as a contribution toward the solving of this highly interesting and important problem, presents the following propositions:

- (1) Terror is temporary Graves's disease.
- (2) Graves's disease is a state of persistent terror.

In order to make this a little more plain, Blake asks, What are the ordinary signs of terror? They are pallor, hurried heart action, panting respiration, tremor, staring eyes, cold sweat, diarrhoea and apprehension. But what are the chief symptoms of Graves's disease? They are contracted arterioles, tachycardia, hurried and shallow breathing, muscular relaxation and tremor, proptosis, hyperidrosis, gastrointestinal crisis, and disturbed mental equilibrium.

On comparing these two groups it will be found that they are practically identical.

If, then, Graves's disease is only a kind of stereotyped or persistent terror, how comes it that the fleeting phantasmagoria, so like the image depicted by the camera on the ground-glass surface, can "be fixed and frozen to permanence"? What is able to make a permanent pathologic photograph out of this temporary retinal impression?

There appear to be many quite distinct agents, which possess in common the faculty of producing a persistent condition, resembling terror. Among these are: (1) Staphylotoxine; streptotoxine. (2) Stercorin and other intestinal poisons. (3) The toxins of certain protozoa, of the parasitic type, such as the *Plasmodium malarie*. (4) Various septic products of putrescence, such as are found in impure drinking water; and, probably (5) vitiated respired air, not only deficient in oxygen, but also

laden with volatile impurities. To this list many others doubtless will be added, as our knowledge increases. No drug has ever caused a complete group, or symptom-complex, of the signs which go to make the disease of Basedow.

To Dr. Solomon Solis-Cohen, of Philadelphia, whose philosophic researches on the vasomotor ataxiæ are so well known to neurologists, Dr. Blake expresses his indebtedness for much friendly aid in reaching these results.

In a later paper he hopes to bring before the profession the various relations of Graves's disease, and to show what evidence exists as to the nature of the *nexus* which links with the disease of Basedow such apparently unrelated pathologic processes as morbus Addisonii, diabetes, chorea, rheumatoid arthritis and the various neuropyschoses.

The success which has attended the use of the iodides and fluorides in the treatment of Graves's disease is probably due to their antitoxic and germicidal properties. Atropine and belladonna are merely palliatives.

In his work on *Myxædema and the Goitres* Dr. Blake has given full notes of well established Graves's disease, occurring after malarial infection, and of others which recovered rapidly, after the removal of colonies of staphylococci and of streptococci from the buccal and the pelvic cavities.

He now adds to what is said there one important transatlantic observation, made since the publication of his book—that goitres which have resisted the ordinary methods of treatment, goitres occurring in the subject of torpid bowels, have disappeared after careful colon-flushing.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the surgeon-general, Public Health and Marine Hospital Service, during the week ending September 25, 1903:

Smallpox—United States			
Place.	Date.	Cases.	Deaths.
Alabama—Mobile	Sept. 12-19	2	0
California—Los Angeles	Sept. 5-12	4	0
California—San Francisco	Sept. 6-13	2	0
Colorado—Denver	Aug. 22-29	1	0
Illinois—Bellevue	Sept. 12-19	2	0
Illinois—Chicago	Sept. 12-19	2	0
Maine—Brewer	Sept. 17	1	0
Massachusetts—Fall River	Sept. 12-19	3	0
Michigan—Port Huron	Sept. 12-19	1	0
Mississippi—Natchez	Sept. 5-12	1	0
Missouri—St. Louis	Sept. 12-19	1	0
New York—New York City	Sept. 12-19	1	0
Ohio—Lorain	Sept. 12-19	1	0
Pennsylvania—Carbondale	Sept. 14-21	1	0
South Carolina—Charleston	Sept. 12-19	1	0
Washington—20 counties	Aug. 1-31	34	1
Wisconsin—Milwaukee	Sept. 12-19	2	0
Smallpox—Foreign.			
Belgium—Liege	Aug. 29-Sept. 5	1	1
Brazil—Pernambuco	July 17-31	5	5
Brazil—Rio de Janeiro	Aug. 8-23	128	60
China—Shanghai	Aug. 1-8	1	0
France—Marseilles	Aug. 1-31	1	0
France—Paris	Aug. 22-29	1	0
Great Britain—Birmingham	Aug. 29-Sept. 12	5	0
Great Britain—Dublin	Aug. 29-Sept. 12	1	0
Great Britain—Leeds	Sept. 5-12	11	0
Great Britain—Liverpool	Aug. 29-Sept. 12	10	0
Great Britain—Manchester	Aug. 29-Sept. 5	2	0
Gt. Britain—Newcastle-on-Tyne	Aug. 22-Sept. 5	12	1
Great Britain—South Shields	Aug. 2-Sept. 5	5	0
India—Bombay	Aug. 11-25	1	0
Mexico—City of Mexico	Aug. 30-Sept. 13	5	0
Netherlands—Amsterdam	Aug. 12-Sept. 12	4	0

Yellow Fever—United States

Texas—Laredo	Sept. 24	2	
	Sept. 25		2

Yellow Fever—Foreign.

Brazil—Rio de Janeiro	Aug. 8-23	8	1
Colombia—Panama	Sept. 7-14	1	
Mexico—Cittas	Aug. 30-Sept. 5	24	3
Mexico—Merida	Aug. 30-Sept. 5	11	
Mexico—Motul	Aug. 30-Sept. 5	1	
Mexico—Monterey	Sept. 23		Present.
Mexico—Nuevo Laredo	Sept. 17	1	
Mexico—Progreso	Aug. 30-Sept. 5	1	1
Mexico—Tampico	Aug. 30-Sept. 5	1	
Mexico—Tehuantepec	Aug. 30-Sept. 5	1	
Mexico—Salina Cruz	Aug. 30-Sept. 5	4	
Mexico—Vera Cruz	Sept. 5-12	44	14

Cholera.

China—Amoy	July 15		Present.
China—Shanghai	Aug. 1-8		1
Straits Settlements—Singapore	July 25-Aug. 1		5
Turkey—Syria	Aug. 17	472	428

Plague—Insular.

Hawaii—Hilo	Sept. 15		1
Hawaii—Honolulu	Sept. 11	1	
	Sept. 12		1

Plague—Foreign.

Brazil—Rio de Janeiro	Aug. 8-23	31	22
Chile—Concepcion	July 11		Present.
Chile—Iquique	July 14-18	25	19
	July 25-Aug. 8	28	15
Chile—Pisagua	July 11		Present.
Chile—Valparaiso	July 11		Present.
China—Fuchau	Aug. 12		Present.
China—Hongkong	Aug. 1-8	9	9
	Aug. 15-22	4	3
Egypt—Alexandria	Aug. 15-21	8	4
Egypt—Damiette	Aug. 15-21	3	1
India—Bombay	Aug. 11-25		165

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending September 26, 1903:

CURL, H. C., Passed Assistant Surgeon. Detached from the *New York* and ordered to the *Boston*.

STEELE, J. M., Surgeon. Ordered to the Naval Hospital, Port Royal, S. C.

STITT, E. R., Surgeon. Detached from duty as a member and recorder of the naval and medical examining boards at Washington, D. C., and ordered to resume usual duties.

STOKES, C. F., Surgeon. Detached from the Bureau of Medicine and Surgery and ordered to the Naval Museum of Hygiene and Medical School, Washington, D. C.

STUART, A., Assistant Surgeon. Ordered to the Naval Hospital, Naval Home, Philadelphia, Pa.

TAYLOR, J. L., Acting Assistant Surgeon. Appointed acting assistant surgeon from September 16, 1903.

TAYLOR, J. S., Passed Assistant Surgeon. Detached from the Bureau of Medicine and Surgery and ordered to the Naval Hospital, New York, N. Y.

TYREE, F. W., Acting Assistant Surgeon. Detached from the Naval Hospital, Port Royal, S. C., and ordered home to wait orders.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending September 26, 1903:

DARNALL, C. R., Captain and Assistant Surgeon. Ordered to assume the duty of field medical supply officer, with station at Washington, D. C.

FULLER, LEIGH A., Captain and Assistant Surgeon. Ordered to Fort Bayard, N. M., for duty.

GORGAS, WILLIAM C., Colonel and Assistant Surgeon-General. Assigned to permanent duty as chief surgeon of the Department of the East.

MAUS, LOUIS M., Lieutenant Colonel and Deputy Surgeon-General. Ordered to Fort Riley, Kansas, for duty.

PERLEY, H. O., Major and Surgeon. Ordered to Fort Logan, Colorado, for duty.

RICH, E. W., Captain and Assistant Surgeon. Relieved from duty at Honolulu, Hawaii, and ordered to proceed to Manila.

TORNEY, GEORGE H., Lieutenant Colonel and Deputy Surgeon-General. Ordered to assume the duty of medical supply officer, San Francisco, Cal.

WELLS, GEORGE M., Major and Surgeon. Relieved from further duty at Fort Bayard and ordered to report to the Commanding General of the Department of California for transportation to Manila, P. I.

Births, Marriages, and Deaths.*Married.*

BECK—CLAGETT.—In Blairsville, Pennsylvania, on Thursday, September 24th, Dr. Harvey Grant Beck, of Baltimore, and Miss Katherine Elizabeth Clagett.

CRAWFORD—MAGINNIS.—In Philadelphia, Pennsylvania, on Wednesday, September 23d, Dr. James Rea Crawford and Miss Lillian Groves Maginniss.

FITZHUGH—ALDRIDGE.—In Baltimore, Maryland, on Wednesday, September 23d, Dr. Henry Maynadier Fitzhugh and Miss Mary Aldridge.

GATES—MARSH.—In Chicago, Illinois, on Thursday, September 17th, Dr. Eugene Gates and Miss Gertrude Cordelia Marsh.

GITTINGS—COLHOUN.—In Philadelphia, Pennsylvania, on Wednesday, September 23d, Dr. J. Claxton Gittings and Miss Katharine Colhoun.

HOSKINS—TAYLOR.—In Newington, Virginia, on Wednesday, September 23d, Dr. William Hoskins and Miss Sarah Taylor.

HUME—CARSWELL.—In Baltimore, Maryland, on Thursday, September 24th, Dr. E. H. Hume, of Bombay, India, and Miss Lotta Carswell.

JENNINGS—THISTLE.—In Brooklyn, N. Y., on Tuesday, September 22d, Dr. John Edward Jennings and Miss Florence Thistle.

RICHARDSON—POLE.—In Hot Springs, Virginia, on Tuesday, September 15th, Dr. Thomas Sheppard Richardson and Miss Edith Pauline Pole, daughter of Dr. Henry S. Pole.

SLONAKER—MARTIN.—In Chicago, Illinois, on Saturday, September 19th, Dr. James Woods Slonaker and Miss Anna Martin.

SULLIVAN—HUGHES.—In Lawrence, Massachusetts, on Thursday, September 17th, Dr. Florence A. Sullivan and Miss Winifred A. Hughes.

Died.

BIGGERS.—In Cordelia, Georgia, on Monday, September 21st, Dr. Stephen Terry Biggers, in the ninety-third year of his age.

BROWNSON.—In Kingsley, Michigan, on Tuesday, September 22d, Dr. Myron S. Brownson, in the sixty-first year of his age.

GIFFORD.—In Kokomo, Maryland, on Friday, September 25th, Dr. T. V. Gifford, in the seventy-third year of his age.

HALTON.—In Brooklyn, N. Y., on Thursday, September 24th, Dr. Frederick J. Halton, in the forty-sixth year of his age.

HOWARD.—In Warrensburgh, N. Y., on Monday, September 21st, Dr. Daniel B. Howard, in the sixty-sixth year of his age.

LEAHY.—In Cincinnati, Ohio, on Sunday, September 20th, Dr. James W. Leahy.

NAUGHTON.—In Brooklyn, N. Y., on Wednesday, September 23d, Dr. William E. Naughton, in the twenty-ninth year of his age.

SKINNER.—In Malone, N. Y., on Thursday, September 24th, Dr. Calvin Skinner, in the eighty-sixth year of his age.

TALIAFERRO.—In Baltimore, Maryland, on Thursday, September 17th, Dr. William Taliaferro, of Tappahannock, in the fifty-ninth year of his age.

WELLS.—In Reed City, Michigan, on Saturday, September 19th, Dr. William C. Wells, in the seventy-first year of his age.

New York Medical Journal AND Philadelphia Medical Journal. CONSOLIDATED.

A Weekly Review of Medicine

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SATURDAY, OCTOBER 10, 1903.

WHOLE No. 1277.

Original Communications.

THE ELECTROTHERMIC ANGEIOTRIBE IN THE REMOVAL OF HÆMORRHOIDS.

By A. J. DOWNES, A. M., M. D.,

PHILADELPHIA,

GYNÆCOLOGIST TO ST. MARY'S HOSPITAL.

In the treatment of hæmorrhoids there are two operations that have hitherto divided the honors as to the better method. The arguments are in favor of the cautery method, and unquestionably the greater number of surgeons prefer it. The difficulty of sterilizing the field and preserving it sterile during and after operation, and the further fact that the lymphatics remain open, are a few of the strong objections to the ligature operation. In favor of the clamp and cautery are the absence in the wound of foreign material and aseptic closure of the blood-vessels and lymphatics. The cautery method is essentially the application of pressure and heat to the pile-bearing areas and, while excellent in conception, is in reality, as carried out by the use of the usual pile clamp and the Paquelin cautery, a crude and somewhat uncertain process, the pressure being too little, the heat improperly applied, and the method as a whole too subject to the personal equation. Bleeding often occurs immediately after the operation, and the slough that must necessarily result from the separation of the carbonized button of tissue formed by the burning incident to this method of operating, begins to separate so quickly that secondary hæmorrhage is too common. During the operation itself one pile area may, and frequently does, open during manipulations necessary to include the other pile areas within the grasp of the clamp.

The one great advantage, as above referred to, is the closing of the lymphatic vessels, and even this may be lost by slight traction on the clamped and carbonized areas opening them to below the influence of the cautery, and thus exposing unsealed lymphatic mouths. The proper application of the necessary amount of pressure, with the pressing sur-

face simultaneously supplying to the compressed track the required heat in such a way as not to burn or carbonize, should be the ideal method of removing hæmorrhoids. My electrothermic angeiotribe (Fig. 1), with blades a quarter of an inch wide, fulfills all requirements. It was especially devised as a hæmorrhoidal instrument, although it is most useful in all abdominal operations. Concealed within the active blade is a heat chamber, within which is an insulated strip of iridoplatinum, which is rendered red or white hot by the resistance it offers to the passage

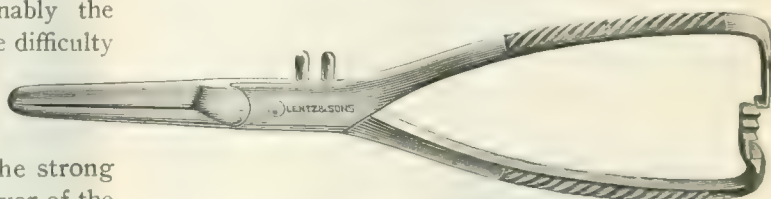


FIG. 1.—Dr. Downes's electrothermic angeiotribe.



FIG. 2.—Dr. Downes's shield.

of a proper amount of current. The heat that this glowing piece of platinum will transmit to the active face of the blade will cause water placed on it to boil in from eight to twelve seconds, according as a maximum or weaker current is used. The blades are two inches and a quarter long, and slightly sprung, so that they meet first at the points, thus preventing to some extent the escape of the pile area under pressure. The handle is so constructed that at two catches there is enough pressure between the blades, while at pressure beyond the blades are released. The manner of constructing the instrument is such that the blades are as highly tempered as any non-electrical forceps or angeiotribe.

Not a little of the success and value of this method comes from the use of my shield (Fig. 2), a necessary and practical device. It has blades with

a pressing surface one sixteenth of an inch wide, concave in their length, to surround the electrothermic blades. Surface contact between the two instruments is prevented by a number of pins project-

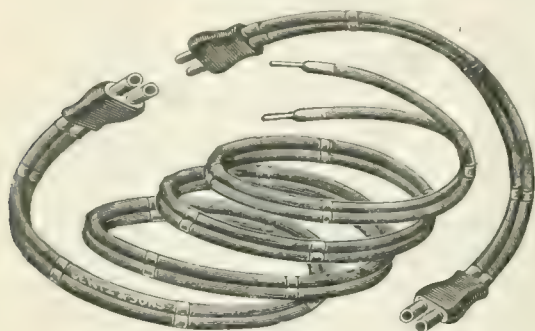


FIG. 3.—The conducting cable.

ing from the inner concave surfaces of the blades of the shield. The amount of heat transmitted from the highly heated electrothermic blade through the point contact with these pins, is so little that the shield will remain quite cool for almost two minutes, thus protecting surrounding tissues. A simple shield of this variety is superior to those with the blades rubber covered, or with fibre or ivory backs, all of which are too bulky and not so sterilizable

as metal alone. Prior to devising this shield, I had one made of hollow steel tubing of small calibre bent into U shape, which was sprung over the tissue back of the blades of the angeiotribe. The tube of an irrigator was then attached to one end and ice water made to course through the tube. This made an exceedingly good shield, but the extra apparatus and preparation required makes the metal shield with projecting pins far preferable.

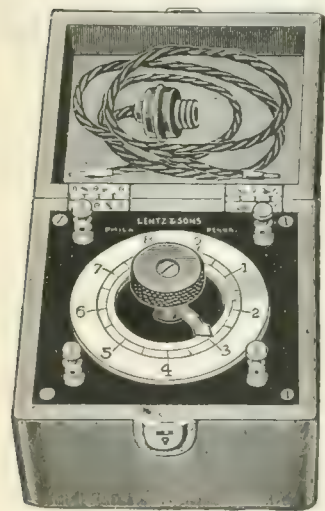


FIG. 4.—The electrical transformer.

In addition to the angeiotribe and shield, the armamentarium consists of a cable and a source of electricity. The cable (Fig. 3) is made of flexible heavy copper wire, rubber covered, with lava tips, and is capable of perfect sterilization by boiling. A current of approximately 60 ampères is required, and may be obtained from the ordinary light current by a suitable transformer (Fig. 4) or motor transformer (Fig. 5). Where the current is not in-

stalled, a storage battery of 100 ampère hours' capacity will furnish the proper current.

The operative technique is as follows: The sphincter is dilated, and my self-retaining anal speculum (Fig. 6) applied, to expose the pile-bearing area. The speculum is then removed. A pile area is seized by any suitable narrow bladed forceps, so as not to encroach on the area to be included within the grasp of the blades of the angeiotribe. The blades of the angeiotribe, with their active surfaces well oiled, are now made to crush the pile as near to its base as possible (Fig. 7.) The shield is then carefully applied, and the proper current connected by attaching the cable to the poles near the proximal end of the heating

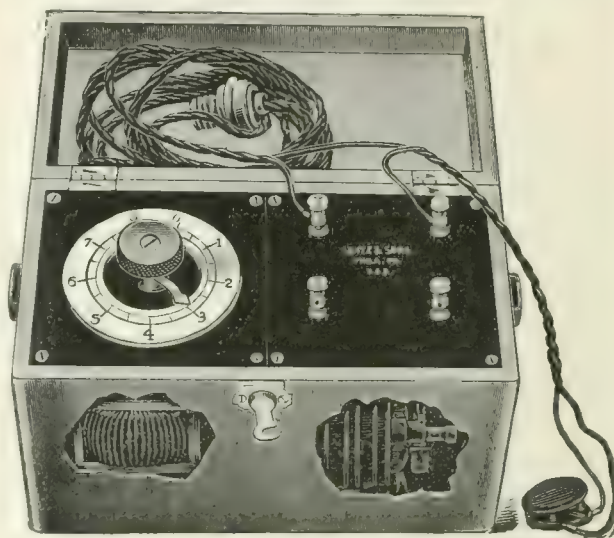


FIG. 5.—The electrical moto-transformer.

blade. In twenty seconds it will be noticed that the tissues in the grasp of the blades are cooking, and this amount of current is allowed to act for about ten seconds longer when the cable is disconnected. After the lapse of a few seconds longer, a knife should trim the projecting portion of pile from above the blades of the angeiotribe, which should then be loosened and removed, exposing a white, thin, sterile ribbon in the hollow of the shield (Fig. 8.) On removal of the shield the ribbon shrinks to the side of the bowel. The same procedure should be carried out on the various pile areas. At the completion of the operation a number of bloodless, sterile, amputation tracks, equal to the

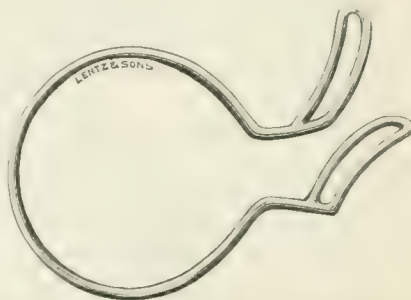


FIG. 6.—Dr. Downes's self-retaining anal speculum.

number of pile areas clamped, will be found projecting into the bowel just above the anal margin, and running with the axis of the bowel. A little care is required so that the clamp may not take in the skin margin, although even if the mucocutaneous margin is clamped a little, the cooking process under compression seems to obtund the nerve filaments. There is never so much pain in these operations from interference with the mucocutaneous margin as in any other. Unnecessary manipulation during efforts to clamp succeeding pile areas might open one or more ribbons already made, but this is far less likely to occur than with the clamp and cautery, and with proper technique never should occur. I have now operated twenty-five times on patients with hæmorrhoids by this



FIG. 7.—Shows a pile area between the blades of the electrothermic angiotribe. Also the blades of the shield in place.

method. I have also removed two rectal polyps. In no case was there secondary hæmorrhage. Three of the hæmorrhoidal cases had coexisting fissures. The postoperative period in all cases was much less painful and cleaner than by the various other methods by which I have operated. In some of these cases I inserted a little gauze after the operation, in others I did not. My later experience is that it is better to insert a little gauze in the bowel. Where there are coexisting fissures, I use my cautery knife and burn through the base of the fissure thoroughly after the completion of the hæmorrhoidal operation. In these cases gauze was inserted in the bowel after operation. In one case, after completing the hæmorrhoidal operation, I dissected a fissure and closed the raw surface with fine catgut.

The application of pressure and heat in the removal of hæmorrhoids, as advocated by me,



FIG. 8.—Shows the angiotribe removed and the cooked ribbon between the blades of the shield.

is not novel. Dr. Skene, who first used the method, Dr. Dickinson, of Brooklyn, Dr. Phelps, of Battle Creek, Mich., and others who were associated with Dr. Skene, have performed it many times and highly praise the method. The instrument, however, devised by Skene for this purpose is not so practical in many ways as my later development. The heating properties of Skene's instrument are very much slower, the pressing blades weaker and less durable, also their release more difficult. The instrument which I have originated for this operation is far superior to Skene's, and with the developments in transformers that have occurred, owing to my interest in this

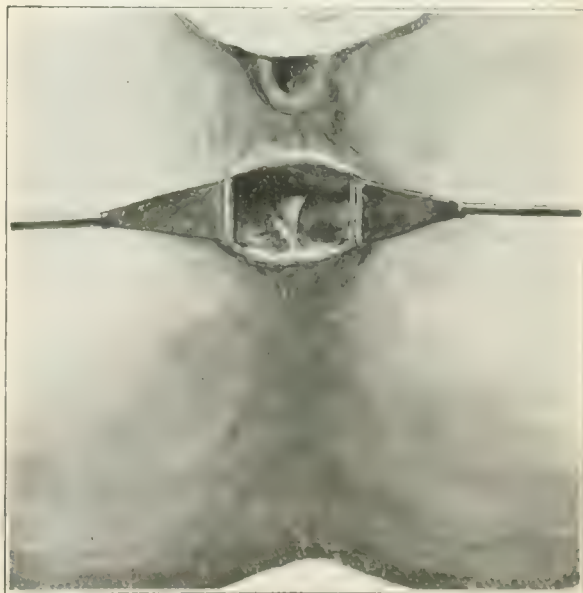


FIG. 9.—Shows the orifice of the anus slightly dilated, exposing a ribbon on the posterior wall of the anus.

method, the hæmorrhoidal operation can be performed much more quickly. My hæmorrhoidal angeiotribe is one of a set of three or four angeiotribes, which makes it possible to do any work within the abdomen or pelvis without ligatures. These instruments take more current and become heated much more quickly than Skene's did. In the method of manufacture they retain all the temper and strength of a non-electrical instrument and make extremely practical, and almost bloodless, the application of pressure and heat in the removal of hæmorrhoids. Whatever good there is in the clamp and cautery method can be carried out with much greater expedition, cleanliness, and surety by the electrothermic angeiotribe, and, with proper technique, almost painlessly also.

Very recently I operated at the Jefferson Hospital on a case of hæmorrhoids in the service of Dr. Brick, who has since written the following letter:

DEAR DOCTOR DOWNES:

The case of internal hæmorrhoids in which your electrothermic angeiotribe was used did beautifully; he remained in the ward only two days after the operation, and there was no reactionary or secondary hæmorrhage.

The deep fissure, extending half way through the external sphincter, and which was cauterized at the time of operation, healed at the same time. The patient is now perfectly well.

I consider your instrument a valuable one in operations of this nature, and predict an extended use for it.

Fraternally yours,

(Signed), J. COLES BRICK,
Chief, Rectal Dept., Jefferson Hospital.

His patient had a coincident fissure, which was burned.

The following is an interesting case of hæmorrhoids operated on August 3, 1903, at St. Mary's Hospital:

CASE.—The patient was a man who had been bleeding off and on for two years; very severely at times, and during this period the piles had been irreducible a number of times. He was ordered a dose of salts the night before operation, and told to come into the hospital early in the morning, at which time an enema was given him, the remainder of the preparation being made on the operating table under anæsthesia. A very turgid anal margin, with four large pile-bearing areas, was exposed. After dilating the sphincter, the largest pile area was clamped, so that the blades of the angeiotribe made pressure over the base of the mass. This, the largest pile area, was so extensive that quite a button of tissue extended above the blades of the angeiotribe. The current was turned on, and after the cooking process had been sufficiently long in action, the button of tissue was trimmed off and the angeiotribe released, exposing within the grasp of the shield a firm, white, bloodless ribbon. The shield was then removed, the ribbon shrinking within the anal margin. In rotation the three other pile-bearing areas were clamped and treated in the same manner. There was not

the slightest opening of any of the ribbons upon manipulation to include within the grasp of the blades succeeding pile-bearing areas. At the completion of the operation, by lightly dilating the anus, the four bloodless ribbons were seen extended up along the wall of the bowel projecting from the mucous surface. The anal margin was bloodless. In this case no gauze was inserted after the operation. The patient complained of considerable pain the first night and required one hypodermic. This was due to the fact that in dealing with one pile I had clamped right to the mucocutaneous margin, believing there would be little or no pain. After the first night the patient was very comfortable. In this operation the only blood seen, and that very little, was caused by grasping the pile area by forceps to bring it forward, so as to make a good base for the blades of the angeiotribe. A few drops in addition were seen when the redundant portion above the blades was trimmed off with the knife. The patient left the hospital in four days in excellent condition.

I have recently received the following letter from Dr. B. Merrill Ricketts: "In reply to your request I will say that I am using your cautery angeiotribe, which gives the most perfect hæmostasis I have been able to obtain. I suggested heat combined with crushing in the treatment of hæmorrhoids fifteen years ago. Not until your instrument was I satisfied with its application."

In addition to Dr. Ricketts, I have read reports of the use of this method by Keefe, of Providence, and Goldspohn, of Chicago. Others are using this method in hæmorrhoids and praise it. Its great practicability is, however, not sufficiently understood.

In this connection it is well to say that there is no reason why any surgeon should find this method inconvenient, providing the operating room is equipped with the electric current. A meter in connection with the motor is unnecessary, in fact it is inconvenient. A superficial knowledge of electricity is required. The motors are made to give the required current. The point to which the rheostat should be turned is found practically. When water boils over the middle inch of the active face of the heating blade in ten seconds for the quarter inch wide angeiotribe, we have practically the proper current. This point need never be changed for any of my instruments or cautery knife, all of which have the same weight and length of platinum for the heating medium. Lately, I have developed a foot brake to turn on or off the current as desired. This places the operator in absolute control. The counting of seconds to get the proper amount of heat in the compressed tissue is necessary. This is soon learned practically.

Yale Medical School.—One hundred and forty-seven students were registered at this institution last session, and it is expected that the number will be surpassed this year.

ON A CERTAIN FORM OF XANTHOMA OR THE "MUSHROOM GROWTH."

By W. MOSER, M. D.,

NEW YORK,

PHYSICIAN TO THE GERMAN HOSPITAL. PATHOLOGIST TO ST. CATHERINE'S HOSPITAL.

CASE.—The patient, an Italian boy, was covered with tumors of varying sizes, from that of a pea or marble to that of a hen's egg, or larger. These large, bright yellow tumors were chiefly located over tendons and bursæ. The tumor shown in the accompanying photograph was successfully removed, among some others, by Dr. Kneer, of St. Catherine's Hospital, from the region of the patellar bursa.

A similar tumor was located over the tendo



FIG. 1.—The upper surface.

Achillis. There were none on the face and neck, a common site of xanthoma. They infiltrated the deeper structures, and appeared to originate from below and grow upward, pushing the skin upward and over the growths.

They are not strictly limited to the skin, which may be hypertrophied over them, and in specimens preserved in alcohol the rugæ on the surface become quite prominent.¹ The brilliant yellow of the upper surface of the growth seen during life is not clearly depicted in the photograph, for the reason that the specimen was discolored by being placed in alcohol, which is not a good preservative for colored specimens.

The bases of these large growths generally had the normal skin structure, or were somewhat pinkish in color. They were not surrounded by inflamed areolæ. The upper surface or apex presented a bright, glistening yellow appearance more marked in some growths than in others.

The growths were not painful, but on account of their size and location were very annoying, and the cause of operative interference. They were of

a few years' duration, yet the boy seemed otherwise in good health. Under the microscope the growths show a yellow fibrous structure, the fibrous tissue predominating over the cellular elements, which were sparse, polymorphic in character, and pigmented.

I am inclined to believe that the peculiar color is due to the yellow fibrous tissue and the pigment contained in the cells, rather than to fatty admixture. The growths showed some cholesterol crystals and a few calcareous and osseous plates. Fibromata occur in the skin, but they are not yellow like these masses, and if the yellow color were due to fat, why is it that lipomata ordinarily fail to show this color?

I am inclined to regard the tumor as a distinct form of growth, in the same way that the chloroma, or green sarcoma, differs in gross appearance from other tumors. It is possible that these yellow tumors may become sarcomatous. It is possible that they may depend upon a blood dyscrasia, like the gouty formations, or the syphilides (gummata).

The upper surface of these growths is smooth, not tuberculated, nodulated, and fissured, as in the ordinary form of xanthoma tuberosum. The growth



FIG. 2.—The under surface.

is one mass, and is not formed as in xanthoma tuberosum by a coalescence of small papules, usually the size of a pin head or pea. They are not sensitive to pressure which, in the usual form of tubercular xanthoma is present to a slight degree, and may, according to Kaposi, be quite severe in some cases.

In the ordinary form of xanthoma tuberosum the color is more like chamois skin, while these growths are bright yellow and yellowish pink in appearance.

¹ In other words, they are subcutaneous and not cutaneous like xanthoma tuberosum, which appears on the skin.

These tumors present a veritable mushroom appearance and are much larger than what are considered by dermatologists "large nodules" in the common variety of xanthoma. There was no sugar in the urine, the presence of which characterizes that form of xanthoma known as xanthoma diabeticorum.

This affection occurs in the form of small, firm, hard, and inflammatory papules the size of a pin-head or pea (17).

Their summit is yellow, like a pustule. They spare the eyelids, which is the place of predilection of xanthoma planum, or the flat variety of xanthoma, and, unlike this form, they never occur in striæ or plaques. They develop rapidly and may disappear spontaneously, or with the disappearance of sugar in the urine (Morrow). Their size, inflammatory character, etc., serve to distinguish this form from the growths as illustrated in the photograph.

These large tumors are not inflammatory, but on account of their size and location, being constantly subjected to pressure, friction, and other forms of traumatism, they may now and then show a denuded surface. I hardly believe that these tumors will disappear, like xanthoma diabeticorum, spontaneously. It is even exceptional for the common form of xanthoma to disappear spontaneously, the majority lasting through life.

Of course no positive deductions can be made from one case.

The growths under consideration bear no relation to colloid degeneration of the skin (Besnier) or to colloid milium (Wagner), since these occur as small, flat, or slightly discrete, rounded growths the size of a pin's head or a pea, as in other forms of xanthoma.

They are light yellow in color, shiny and translucent. According to Liveing they become umbilicated, and terminate in inflammation and scab formation. Besnier regards the affection as a colloid degeneration of the connective tissue of the corium. They may leave a mark, but no scar.

The patient was at no time icteric, which not infrequently occurs in the common form of xanthoma, and which fact has led some writers (Chambard, Pye-Smith, Fagge) to believe the latter affection dependent upon hepatic disease, while others (Carey, White, Schwimmer, Mormard, Brachet) have found no such relation to exist.

The question whether the tumors under consideration are benign or malignant is not easily answered. The tumors probably do not recur upon removal, and in this sense may be benign, but in the popular sense of the word they are quite malignant, since it becomes apparent that the removal of large multiple tumors infiltrating the deeper struc-

tures is no trivial matter. As with other connective tissue growths, sarcomatous degeneration is a possibility. Furthermore, the tumors may break out in different places, starting as small masses with yellowish summits, and may continue to grow to the size seen in the photograph or even larger.

Let us review the chief distinctive features of this case:

1. The large size of the tumors.
2. Their "mushroom" appearance.
3. Their smooth, even surface, being one mass, and not nodulated, tuberculated, and fissured, as in the ordinary form of xanthoma tuberosum, which is formed by the coalescence of smaller masses or papules and is not infrequently associated with the macular variety of flat plaques or striæ, which in this case were conspicuously absent.
4. Their predilection for tendons and bursæ.
5. The absence of icterus.
6. The absence of glycosuria.
7. Their occurrence in childhood, which is very exceptional for xanthoma tuberosum, most cases occurring in middle life, especially in women.
8. Their subcutaneous character.

I am indebted to Mr. C. Perpente for the photograph.

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31. Ziegler. *Pathologie* (article Xanthoma or Endothelioma lipomatodes).

THE DANGEROUS OPERATION OF UTERINE CURETTEMENT.*

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It is not a pleasant task to assume the attitude of an adverse critic toward an operation which is so generally accepted as useful, and almost positively safe, as curettement of the uterine cavity. But when a mass of experience is collected which goes to prove that the accepted usefulness is limited and its positive safety a dangerous delusion, it becomes a duty both to the profession and to humanity to strike the solemn note of warning. If the operation is confined to those thoroughly versed in the technics of uterine operations, always limited to selected cases, and performed with the object to be gained always in view and after a most thorough preparation of the patient, the dangers attending its performance may be minimized, but never remedied. In the entire range of gynæcic surgery I know of no other operation that demands in an equal degree such accurate knowledge of instruments, their use and limitations, and on the part of the operator such perfect control of his own muscles. Further, he must be an adept uterine pathologist in the sense that knowing the condition that calls for the performance of the operation he may judge accurately the consistency of the uterine parenchyma and its power of mechanical resistance. Usually, the most frequent causes of fatal accidents are traceable to the personal equation of the operator and

to his misjudgment of the power of the uterus to resist mechanical strain.

But before speaking of the causes of fatal and dangerous accidents, it would be well to study the instruments employed and note the dangers inherent in their use. As the operation is always painful, and in some cases exceedingly so, an anæsthetic is necessary, and, to prevent resistance during the first stage—the dilatation—it has to be carried to its limit. Occasionally an operator may be heard to boast that he is able to make a curettement without an anæsthetic, but while it may be possible to do so, it can never be done slowly and thoroughly, especially if the dilatation of the cervix offers much resistance. In recent years the patient is posed upon her back more often than in the classical position of Sims. Now, while the position of the patient upon the table cannot have any direct result upon the operation, yet, since a popular method of operating has led up to the choice of the dorsal position as a matter of convenience, and has thus influenced the operator in the choice of a dangerous instrument, it deserves attention.

The parts are exposed by a perineal depressor, or by some modification of the Sims speculum. The toilet of the vagina and vulva as a preliminary to the operative work is one that calls for thoroughness and care. The vagina is said to be a cavity that to a certain extent has the power of autosterilization as to pathogenetic germs. This can be said of the part only when the tissues are in a normal condition. If virulent germs once find lodgment under conditions favorable to their growth, no other field equals it as a culture medium. As the operation is called for usually under condition of morbid secretions, the only safe course is to assume that the vagina is contaminated.

The position of the patient is important during the scrubbing of the parts. In the dorsal position the anterior wall falls into view and makes it impossible to be certain that all the folds are obliterated and the sterilizing solution has reached every part. In the semiprone position the vagina balloons when the retractor is inserted, the plications unfold, and every part of the surface is clearly seen. The facility thus given for the free and visible cleaning of the part is the reason why I continue to use and advise this position. Further, in this position, with the hips slightly elevated, the cervix may be submerged in the antiseptic solution and the dilatation and other steps carried on through it. The cavity of the cervix it is nearly impossible to make aseptic, and as it is always under suspicion, this safeguards another dangerous point.

* Read before the Syracuse Academy of Medicine.

The bichloride solution is yet in general use as an antiseptic, but I feel assured that it ought never to be used in the first flushing of the part. The first effect of the bichloride solution is to coagulate the albuminoids, and when the vaginal walls are thickly coated with mucus a white insoluble coating is formed, which it is difficult to remove. While this is true of the bichloride, it is not true of the biniodide, of mercury. This salt, in the strength of 1:1000, either in separate solution, or in combination with soap, is very trustworthy in freeing the vaginal folds of its mucus covering. Soap is the most trustworthy agent, and with it the operator may combine any germicide that he believes will increase its efficiency. Repeated washings with fresh boiled water each time must be made until the water no longer turns milky when the sponge is dipped into it. Some cautious operators as a routine custom shave the parts, but I believe that this is unnecessary, and only when the labia majora are heavily covered do I clip the part with scissors. A stiff brush with plenty of water and a shampoo will make this field safe.

When this operation is called for in adult virgins and young girls, and fortunately this is very rare indeed, it is better to make a clean cut through the hymen and constricting bands, than to tear the parts by forcibly introducing the retractor. A tear always gives a more freely absorbing surface than a clean cut, and with the latter, repair often takes place, so that in a few days no trace of the operation is left upon the parts. When the toilet is completed the volsella is carefully placed and firmly secured. And this, trifling as it may seem, is another reason why the dorsal position is not a safe one, as the cervix is usually seized by the volsella before the antiseptic toilet is begun, and thus the first wound is made in a septic field. The operation of uterine curettement is too essentially dangerous to permit us to overlook any precaution, however slight.

The cervix uteri is steadied and drawn down by a volsella, and this brings us to our first danger, not a serious one, but one in which there lurks a potential hazard. The strain on the grip of the volsella during the use of the dilator is very great, and consequently, unless the hold of the instrument is a broad one and it is firmly implanted in the tissue of the cervix, it is quite sure to tear out. This it can do repeatedly, each time making a ragged rent. It is not necessary for me to make any effort to demonstrate that all unnecessary wounds made during the performance of an operation, especially upon exposed parts, are dangerous. The cervix uteri is not an external part, but it is a part exposed to absorption and the invasion of bacteria. Rents made by the

claws of the volsella also tend to weaken the periphery of the os uteri, and thus lead to laceration of the cervix during dilatation, as has sometimes happened, even to the extent of requiring sutures for its repair. The volsella should be carefully selected. Those with single claws rejected as almost certain to tear out and one with double, or better with triple claws selected. These ought to be long and sharp upon the points, so as to sink easily and deeply into the tissue, and should have a firm lock at the handle which ought to be placed once for all and not removed until the operation is completed.

As we go on from this point, each step in the proceeding accentuates the danger. No other stage of the operation exceeds in direct and immediate hazard the rapid dilatation of the cervix. Part of this inheres in the instrument and part in the operator. When the surgeon is conscious of the danger of what he is doing much may depend upon his choice of a dilator, but to one who is obtuse to the sense of danger or ignorant of the mechanical strain the organ will safely bear, it matters not what form of dilator he may select, as his patient is in equal danger with all. Those of you who have performed the operation are aware that when the blades of the dilator are separated there is a strong tendency of the instrument to be pushed out of the uterine cavity. This is due to the tendency of the rounded concavity of the fundus to resist dilatation, and thus to expel the blades. If the dilator could be held solidly in place when the blades are separated the diverticulating form of the instrument could not be used at all, as a rent of the fundus would be almost certain to occur. This tendency to expulsion has caused some very able men to invent a very dangerous device to overcome this tendency. This error was first committed by Dr. Goodelle. He placed a line of ridges upon the outer surface of the blades, which, by being forced into the sides of the cervical canal, would counteract the tendency of the dilator to slip out. Fortunately, this device does not wholly overcome this, but it does partially, enough to render this a very dangerous form.

How many ruptures of the fundus have been caused by this instrument we shall never know, but I have no doubt that it has been the cause of many fatalities. All rapid uterine dilators of this type are far from perfect, one may be a little more or a little less dangerous than another, and this is the best that can be said. In the hands of the amateur or of the heedless operator, it is rather by good fortune than by intention that the patient escapes serious danger. The cervix sometimes shows a remarkable resistance to dilata-

tion; this must be overcome by persistence and moderate force. Time must be given to this stage of the operation. If the full force of the powerful dilator is turned upon the resistant cervix there is great danger of damaging the walls of the uterine cavity. One must never forget that, while the effect of the dilator upon the cervix is easily seen, the extremities of the blades are concealed within the uterine cavity, so that we cannot know, except by calculating the amount of force exerted, what damage the blades may be causing to the tissues within the cavity. If rapid stretching is produced by the full force of the dilator, it is not unusual for the cervix to be ruptured; which, while not in itself dangerous, may be a starting point of septic infection, as it is difficult to keep the cervix free from an invasion of this kind before repair occurs; and, further, it is force so exerted that makes possible a rupture of the uterine wall. Careful operators have discarded this form of cervical dilators as too dangerous. Dr. Mann, of Buffalo, effects dilatation of the cervix by a series of graduated uterine sounds. If such a method was in common use, two of the fatal cases of uterine rupture which I shall present, could not have occurred. An incalculable amount of danger would be averted if the lever form of dilator was discarded, and the graduated sounds substituted. Sufficient rapidity could be secured as time would not be an element, as in the case when general anæsthesia is employed, this stage of the operation being rendered painless by a local anæsthetic.

How far shall forcible dilatation be carried? is another question that seriously concerns the safety of the patient. This depends upon the object to be gained. If it is done for the purpose of packing the entire uterine cavity with gauze, extensive dilatation is needed; if only to allow the free use of the curette with strips of gauze for drainage, less room is required. The latter, I believe, is the safe and proper limitation of forcible dilatation. If more room is necessary, gradual expansion of the cervix and uterine cavity by repeated packings with graduated dilators is the only method that insures the safety of the patient. For the purpose of curettement and drainage, only a slight degree of enlargement of the cavity is needed, while the force to be expended upon the cervix ought to be limited to that necessary to render free manipulation of the curette easy and introduction of the drainage possible. The amount of force necessary to secure this may be minimized by dividing the dilatation into stages: First, that needed to make the introduction of the curette and its manipulation easy; while this is being done the cervix regains its tone and con-

tracts. Secondly, reintroducing the dilator to afford room for the toilet of the cavity by the introduction of dry sterilized cotton upon an applicator, by which means all débris is removed. Thirdly, meanwhile the cervix has again contracted and another slight dilatation gives room for the introduction of the drainage. Afterward the drainage itself may be trusted to keep the canal patulous.

I have already alluded to the knowledge of uterine pathology as a prerequisite to the safe use of the dilator and curette. Thus certain uterine conditions forbid forcible dilatation. One of these consists in the fatty degeneration of the uterus eight to ten weeks after labor. One would hardly expect an intelligent man forcibly to dilate the organ while in this condition; but it has been done, and with fatal rupture as a consequence. The same holds true, but not to an equal degree, after an abortion, even as early as six weeks. The organ has lost its elasticity, its connective tissue stroma is weakened, and it may as readily be lacerated as stretched. Unfortunately, this condition of the uterine body is at its maximum just at the time that curettement appears needful. Those who have done consultation work in this branch of surgery must have had the common experience of seeing sepsis following abortion that did not appear until after a curettement. This was the fault of either the dilator or curette, possibly of both. All malignant conditions of the uterine body are so liable to rupture from even slight mechanical stress, that this instrument ought never to be employed. In cases of senile endometritis the walls are very thin and frail, sometimes with their connective tissue quite obliterated; the cervix is absorbed, and the os externum a mere pin hole at the summit of the vaginal vault. The temptation to use a dilator might be irresistible to one of limited experience. Under these conditions never dilate, never curette; rupture in these cases, and they are very frequently met with, means a speedy death. Use the dilator with a very gentle hand and with the possibility of rupture always in mind in all cases of superinvolution, but better not use it at all. The infantile uterus in the adult is another condition that forbids the employment of forcible dilatation. Lastly, always use the rapid mechanical dilator with the apparition of rupture before you, remembering that if you rupture the uterus your patient probably will die.

This brings us to the concluding stage of the operation, one that is attended with more insistent dangers than the first—namely, the use of the curette. These dangers inhere in the instrument itself, even when used by the most experienced

hand. Curettes are either sharp or blunt; the first as dangerous as a high explosive, the other comparatively safe, even in inexperienced hands. The danger attending the sharp curette is not the fault of the general practitioner, but the burden rests upon the shoulders of the men who have written the books which he has read. Let us take a case of endometritis, for instance. The lining of the uterus is not a true mucous membrane. Leopold calls it a lymphatic surface without lymph vessels, but consisting of lymphatic sinuses. This forms the pavement for a layer of columnar epithelium. There is no submucous layer, but it is planted firmly on the connective tissue and muscular stroma, which are still further blended by the uterine glands with their cul-de-sacs imbedded in the muscular layer. It is this intimate blending which concerns us in the use of the curette. In the normal condition of the lining I do not believe you can scrape this surface down to the muscular layer by any reasonable and safe degree of force; remembering that the sharp curette does not cut, it only scrapes and tears. In our case of chronic endometritis, not due to specific sepsis, the exuberant granulations or outgrowths do not penetrate through the lining down or into the muscular layer, as some authors contend, but are on the contrary superficial. In these cases I use the blunt curette and have rarely failed to remove them. When the blunt curette fails and I have resorted to the sharp curette, I have failed with that also. Now, with the first instrument I have never observed any elevation of temperature, and with the second a rise is often recorded. One author who is a firm advocate of the sharp curette says that if strong applications, like iodine or carbolic acid, are avoided, there will be no elevation of temperature. But when scraping and lacerating the intrauterine mucosa is followed by sudden chill and a rapidly forming phlegmon in the iliac fossa, it appears absurd to trace such a result to the applying of strong antiseptic agents to the wounded endometrium. I have abandoned the sharp curette in those cases where we have profuse menorrhagia or metrorrhagia, and have resorted to the dull curette with results uniformly good and always afebrile; but I do not believe the curettement contributes so much to the result as the thorough drainage of the uterine cavity with sterile gauze. The danger in the extremely radical use of the sharp curette, as is advised by some authors, is due to the fact that these cases of chronic vegetative endometritis are always mildly septic, and the wounding of the endometrium develops the latent potency of the bacteria, with pelvic invasion quickly following. In profoundly septic conditions of the uterus with

the mucous membrane and the lymph spaces in the muscular wall involved, I do not hesitate to say that the sharp curette has been responsible for many deaths. Here, if you are to do any good, you would have to make a total hysterectomy with the curette, as the whole organ is involved.

Some one has invented what is called an irrigating curette. I believe that this instrument is positively dangerous in all cases. I have never used it, but I have seen it used and have tried to persuade men to abandon it. The fluid which is delivered by it into the uterine cavity may escape into the pelvic cavity through the tubes. Pryor says that he has demonstrated this by finding bloody water in the pelvis when he has opened the posterior vaginal cul-de-sac for drainage after curettement when irrigation was employed. Therefore never irrigate after curettement. All you need it for is to remove the débris, and this is better done with dry sterile cotton on an applicator. I would like to have you try this simple plan and observe how thoroughly and rapidly all fragments and clots may be removed.

The concluding step in the operation advised by some authors, and implicitly followed by operators of limited experience, consists in packing the dilated uterine cavity with gauze. The theory is that this firm packing causes a renewal of the lining membrane in a normal manner. How the pressure of such a rough and rigid material could promote the repair process is a question that has been settled in relation to other parts, but has received no demonstration so far as the uterine cavity is concerned. We can infer from analogous conditions in other parts that repair cannot take place under pressure, and especially would this be true in a structure so delicate as the final layer of the endometrium. Be this as it may, I believe the practice to be a dangerous one. After curettement the drainage is often profuse, and it ought to be given free exit. I am satisfied that several very dangerous conditions could be traced to the practice of firm packing. The secretions are retained and forced back through the tubes, setting up an infective inflammation of the tubes or the pelvic cavity. This practice has been carried to such an extent that some authors, who at one time secured quite a following, have advised repeated packing until the uterine cavity was widely dilated, either with or without a preliminary use of the curette. I have never seen this done by men of experience, but I have known it followed to its conclusion by young men who were just beginning to operate, and always resulting in a sick woman. It converts a simple case into a complicated one, and when that element is introduced into a pelvic operation, be it ever so

simple, no one can predict where the complexity will end. The firm and solid packing of the uterine cavity defeats the end sought to be reached by the method, and introduces an unnecessary element of danger. Drainage of the simplest and most effectual kind must be used; nothing bottled up and retained, even for a few hours. We all know how quickly cotton, or gauze, becomes contaminated and malodorous, when confined within the genital canal. When gauze is iodoformed it is none the less dangerous; because one odor is able to overcome another is no evidence that infection cannot propagate. If when a narrow strand of gauze is used, which in no manner occludes the canal of the cervix, drainage should cease after a few hours, remove it lest it may be keeping back the secretions. Discharge ought to be active for the first day. If it is not, the cause should be looked after at once. Packing ought not to be practised after curettement, and nothing more than a slender strip of gauze, which the fingers of the operator should not touch, should be introduced, while the perinæum, the labia, and the thighs of the patient are covered by clean sterilized napkins, applied at the last moment before the gauze is introduced.

I believe that this warning, given from my most solemn convictions, would lose its force if I did not speak plainly, without fear or favor, but I must also add that the man who has one of these terrible accidents resting on his conscience has been more sinned against than sinning. What is largely responsible is the radical surgical tendency of the period. He can say in his defense that he has followed the method of the books; but the amateur, the man of few operations but with a great desire to operate, must never forget that the great authors, to whom he may point, have the expert in view all the time, and that they are firing clear over the heads of this insistent group of men. These authors take for granted the caution, or surgical foresight, or judgment that comes from experience; they assume that what they say is not the primary education of a man who has never operated, or has operated but a few times. But these men never seem to realize this. They seem to take it for granted that the author means them, and not the men of technical experience. In no other way can we explain why a man would do a dangerous operation in a dangerous way, simply because it is easy. The burden of the sin must rest upon a numerous body of men who write gynæcological text-books, stating upon the title pages, for what reason it is impossible to understand, that their books are for the instruction of the general practitioner. To what extent human life is lost or suffering endured, that may be

traced to these alleged gynæcologists who write books for the general practitioner, none but the recording angel knows.

A few cases in illustration. For obvious reasons all names are suppressed.

CASE I.—A. Single, aged twenty-three years. A girl of fine physical development. Abortion at two months and a half or three months. Cause of abortion unknown. For three weeks after abortion, she continued to flow freely. Curetted. dilator not used. The sharp irrigating curette was used freely. During the night following, she had a severe chill with resulting temperature of 104.2° F. A large pelvic mass formed in the right iliac fossa and posterior to the uterus. I first saw the patient after four weeks of dangerously high temperature. Vaginal section was made and a large amount of foul smelling pus liberated. Tubular drainage and flushing through the tube twice daily. The patient was discharged from the hospital in eight weeks from the time of admission, the abscess sac obliterated, and with but few pelvic adhesions. She was thin and anæmic for a long time, and it was nearly a year before she was able to resume her occupation.

CASE II.—B., aged twenty-eight years, married seven years. A rosy, plump woman, of Irish parentage. She consulted a physician with the object of having her sterility cured. She was informed that the uterus needed dilatation and curettement. She was admitted to a private hospital and the operation performed. Within twenty-four hours severe pelvic pain developed, followed by high temperature and the development of pelvic phlegmons. It was many weeks before she was in a condition to be removed to her home. While at home she was unable to get about, and other physicians were called in, vaginal section was performed, and a large amount of pus evacuated. A year and a half after the operation I was called in and continued with her to the end. She was one of the most ghastly objects I have ever seen. Her weight could not have exceeded sixty pounds. A vesicointestinal fistula had formed, the contents escaping through the bladder. Another opening had formed between the abscess and the rectum. I expected her death daily and was astonished at her tenacity of life. I am, of course, unable to say what could have been done for this woman if she had been seen early and free exit to the pus given, and measures taken for liberal flushing of the abscess sacs; the end might possibly have been the same. I ascertained that the instrument used was a sharp curette and that the uterus was packed with gauze. The operator was familiar with work of this kind, but always followed the radical teachings of the authors, that nothing could be accomplished except the cavity was stripped of its lining membrane with the sharp curette.

These two cases are placed in contrast as illustrating the equal dangers that attend the use of the sharp curette in the supposable clean case, and in the case where infection is introduced.

CASE III.—C., aged thirty-five years, German.

married twelve years. Mother of five children. Had an abortion at about three months. As flowing continued in a moderate amount for several weeks, a curettement was undertaken to relieve it. The cervix was sufficiently open to admit the curette without a preliminary dilatation. The irrigating sharp form was used. The drainage was removed a few hours after the operation on account of the severe pelvic pain that developed. This afforded no relief and morphine hypodermically was resorted to. A sharp case of pelvic peritonitis resulted. I saw the patient a few weeks later, in consultation with the operator. I advised opening the posterior cul-de-sac, with gauze dressing, followed by tubular drainage. She was admitted to the Woman's and Children's Hospital, where I operated.

If my recollection is correct, she was the last person I operated on in that hospital, and was not discharged at the date of my resignation. In my judgment the error lay in not dilating so as to secure a free exit for the flush, and in using the irrigating curette. The peritonæum was implicated by the water escaping through a tube. The dull curette will remove retained fragments of after-birth or decidua better than the sharp, and that is all that is needed in these cases.

CASE IV.—D. Woman in middle life, mother of nearly grown children. Supposed early abortion, rapid dilatation, and curettement, the kind of instrument not known. During the curettement a membrane was brought out of the uterine cavity, which was handled roughly and torn across. It was not recognized until some omentum appeared that the uterus was ruptured. The membrane was small intestine. I saw the woman some considerable time after the accident, during which interval nothing was done. I opened the abdomen and found a loop of the small intestine firmly held in the rent, which was about an inch and three quarters long and was situated at the fundus. The rent in the intestine was ragged and involved its total circumference. The damaged portion was excised about four inches. The mesentery was sutured, a Murphy's button inserted, and the rent in the uterus was closed with deep interrupted suture, over which the peritonæum was brought by fine silk sutures. The pelvis was free from intestinal contents, as the torn intestine was held firmly in the uterine cavity. There was some collapse when the patient was removed from the table, but I regarded her condition as so fair that I felt justified in holding out hopes of her recovery. Notwithstanding the assiduous efforts of her physician, the collapse deepened and she died the next day.

It is with great reluctance, and only from a positive sense of duty, that I give thus briefly and imperfectly the details of this painful case. If you were to ask me what measure of blame I ascribe to the operator I should answer but very slight. He was following the methods of the textbooks. The restrictions and the counterindica-

tions for the operation have never been formulated. The operation is too simple and easy to be hampered by restrictions. It is a so-called minor gynæcological operation, and can be performed by any one. I have always observed in gynæcology that it is the simple things, the things that offer to the operator such a misleading facility of performance, that are dangerous or are liable to be followed by evil results. Let me reiterate that no operation requires a more practical knowledge of the special instruments; no operation demands such perfect training and command of the muscles of the operator; and lastly, in no other operation can such instant use be made of a practical knowledge of uterine conditions for the safe guarding of the patient.

CASE V.—E. This case is too painful and grew-some in its details to be fit for an audience even of medical men. It is in no way helpful to know that there are in our midst men holding respectable positions in the profession of such crassitude of ignorance and so utterly untrained, that they are more dangerous to the community than the pestilence that walketh in darkness. When men like this essay surgery, to the eternal regret of better men, they define a group. A friend, a professor in a great university, in speaking of the operator in this case said to me, "He is quite a respectable man, he is connected with the small hospital in his town and has a great desire to operate." Unfortunately for humanity, the group is not a small one.

The only lesson we can learn from this case is to avoid the hasty, ill-advised attempts of this operator to save his patient, and adopt the means which afford the most hope of saving life after the accident of uterine rupture. The method followed by this operator was to perform abdominal section. His attempt to suture the uterine rupture failed, because, as he stated, his sutures would not hold. His next step was such absolute folly that it was worse than ignorance. He inserted a strip of gauze through the uterine rent and the uterine cavity and into the vagina. Gauze is but a feeble agency for drainage at the best, and by absorption can drain upward as well as downward. After the rupture of the body the only part of the organ capable of firm contraction was the cervix. Contraction of the rent and of the uterine cavity was prevented by the gauze. He was thus draining the vaginal cavity by absorption into the pelvic peritonæum; the vagina never remains clean but a few hours under these conditions. Finally, he drained the pelvis with other pieces of gauze brought out through the abdominal wound. Each step that this man took to correct his error was wrong, and each an added burden for the stricken woman to bear. She died in profound sepsis in a little over forty-eight hours.

If one were so unfortunate as to cause a uterine rupture while performing a curettement, the remedy, so far as it would be possible to apply one, would be a very simple procedure, provided you

could know positively that omentum or an intestinal loop had not descended through the rent. As you cannot be sure of this, it is necessary to insert the finger into the cavity. Now rapid dilatation seldom affords room for the insertion of the finger up to the fundus, the usual point of rupture. Further dilatation is out of the question. It is necessary, therefore, to incise the cervix, which can be better done anteroposteriorly with a pair of scissors, carrying the incision up to and through the os internum. The rent is now easily reached by the finger and any inclusion of bowel contents may be felt. If such inclusion is found the part must be gently reduced. The probability is that it will not come down again. But if the rent is so extensive as to make further descent of the intestines likely, gauze, not in mass, but gently applied strips pressed against the uterine side not through the tear, will prevent a renewal of the hernia; not into or through the wound, as it would thus prevent its closure by uterine contraction, the very thing that you are hoping for to save your patient. You need not be alarmed about hæmorrhage, as these tears will not bleed seriously, and because the next step is to open the peritoneal cavity through the posterior vaginal space. Make the opening as free as the space allows; with a sponge on a long curved holder you are able to wipe out the pelvic cavity and estimate the amount of hæmorrhage. Insert gauze to the level of the fundus and bring it into the vagina. If the intestine is torn and it is necessary to open the abdomen, in case the uterine tissue is friable from fatty degeneration after labor or advanced abortion, make no attempt to suture the uterine wall, but slide a flap of peritonæum over the rent and suture with fine silk. The rent through the uterine wall may be safely left to care for itself. It must never be forgotten that the abdominal incision adds enormously to the danger in these cases, and should never be made except to repair intestinal damage. I believe that this treatment of uterine rupture would give us the only hope of saving life after this accident.

Some operations are dangerous from their gravity, with an anticipated death rate which is pardonable; but can any one point to a major or so-called minor gynæcological operation, done to secure a comparatively unimportant result, with such a list of fatal accidents and such a number of evil results as the writer has encountered in a comparatively short time and in one community? Have we any reason to suppose that this experience has not been multiplied throughout the land? Has any physician the right to assure his patient that a uterine curettement is positively safe and that any one can perform it? I will answer for

him that I do not believe that he is justified in so stating, in view of the fact that a large part of this danger is due to the instruments employed, to say nothing about the need of experience and common prudence of the operator. It may be objected by some of you that these results ought not to be debited to the operation, but rather to the operator. Concerning many operations this may be true, but in my paper I have traced the dangers step by step to the methods of the books and to the instruments employed, and at no stage can you separate the man from the instrument, which justifies me in calling it the dangerous operation of uterine curettement.

STERILITY FROM OBSTRUCTION AT THE EPIDIDYMISS CURED BY OPERATIVE MEANS.

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In the *Pennsylvania Medical Bulletin* of March, 1902, Dr. Carnett, Dr. Levi, Dr. Pennington, and I published the results of experimental studies upon the treatment of sterility due to obstruction at the epididymis. We demonstrated in dogs that, after cutting the vas a short distance from its origin in the epididymis and forming an anastomosis of this divided vas end with the head of the epididymis, subsequent ejaculations of the dog would be found to contain a normal number of motile and apparently healthy spermatozooids. Some animals, under observation for months, apparently showed that there was no tendency toward closure of this artificial opening.

A morphological study of the human spermatozoid taken from the rete testis, the upper part of the epididymis, and the vas, seemed to show that these spermatozooids underwent a developmental change in their progress through the epididymis, suggesting that even though this method of anastomosis might be applicable to men sterile because of obliteration of the epididymis, it did not necessarily follow that the spermatozooids thus short-circuited would be necessarily fertile.

The method of proving whether or not such spermatozooids would be fertile lay in a clinical application of the knowledge gained by experimental research; therefore we operated, December 24, 1901, on a man whose childless marriage, apparently, was absolutely dependent upon azoospermia consequent upon a double obliterating epididymitis. He was most anxious for children, as was also his wife. She had been subjected to dilatation and curettement before it was discovered that her husband was

sterile. In the fall of 1897 he suffered from gleet, having had two attacks of acute urethritis, one twelve years, and one four years before. Both these attacks were severe. The first was complicated by rheumatism, the second by bilateral epididymitis. There was a large stricture in the bulbous urethra, with ulceration behind it. There was also some follicular prostatitis.

Gradual dilatation, irrigation, and massage cured the gleet. In the spring of 1898 it was discovered that the semen contained no spermatozooids. There was no nodulation of the tails of the epididymides. The right testis was the larger of the two. The patient was directed to wear a sweating suspensory bandage, and was ordered testicular massage. A prolonged course of internal medication supposed to be helpful in causing the absorption of inflammatory fibroid material proved unavailing.

Repeated examinations failed to show the presence of spermatozooids, until March, 1901, when, on careful search, two or three ill-formed ones were found in each cover-glass preparation. In the fall of 1901 a most thorough search failed to show the presence of a single spermatozoid. On December 16, 1901, examination of specimens about six hours old was made, which showed the presence of a few white blood cells and amyloid corpuscles of great variety of shapes. As the cellular elements were so few and the accurate determination of the presence or absence of the spermatozooids was most important, the material was diluted with 13 times its volume of an 0.8 per cent. solution of sodium chloride and was then centrifuged. Spermatozooids were not found.

The patient was etherized on the evening of December 24th. The vas of the left side was freed at about the level of the top of the testis, and, by means of a sharp-pointed pair of scissors a slender bistoury, and a grooved director, such as are used by ophthalmologists, its lumen was opened by a longitudinal cut a quarter of an inch long. The epididymis was then approached from the outer side, and its entire length was exposed. An incision into the tail failed to show the presence of a milky fluid, though cover-glass preparations subsequently examined demonstrated a few spermatozooids in the expressed fluid. A portion of the head was then picked up in a toothed forceps and excised. A few minute, whitish drops at once appeared on the resulting cut surface, made up in the main of spermatozooids, some of which, when examined fifteen minutes later, were motile. Into the wound of the epididymis the vas was implanted by means of fine silver wire sutures carried on small-face-needles from the outer surface of the vas into its lumen, thence, from the cut surface of the opening made into the epididymis through its fibrous tunic. A suture was

placed at either end of the vas incision, and the latter was held open by two other sutures, one to either side. The skin was closed by catgut. The dressing slipped the next day, exposing the wound, which became infected and suppurated superficially.

Semen twelve hours old sent for examination January 11th showed the presence of spermatozooids not so plentiful as usual, but very actively motile. A differential count showed that 50 per cent. of the cells present had either a much enlarged middle piece or one showing a protuberance somewhere along it. In nearly all of them were the middle pieces more marked than is usually observed, this point coming out no matter which method of staining was used. These cells corresponded in type to those observed in the epididymis of the human testis removed after death and subjected to an examination.

On January 9th this patient resumed marital relations, and on October 17, 281 days later, his wife was delivered of a normal girl baby, exhibiting an almost ludicrous resemblance to her father. This completes the demonstration as to the value of an anastomosis between the vas and the epididymis in case of sterility due to obliterating lesions in the tail of the epididymis, apparently proving that even though certain formative changes do occur in the spermatozooids during their course through the epididymis, these changes are not crippling in so far as the procreative power of the spermatozooids is concerned.

TRANSIENT POSTCONVULSIVE ASTEREOGNOSIS IN JACKSONIAN EPILEPSY.

By CHARLES W. BURR, M. D.,

PHILADELPHIA,

PROFESSOR OF MENIAL DISEASES IN THE UNIVERSITY OF PENNSYLVANIA.

Permanent loss of the ability to recognize objects by touch resulting from organic destructive brain disease has been much studied in recent years. Its occurrence as a transitory symptom following convulsive attacks and resulting from the temporary abolition of function of regions of the brain in the neighborhood of a destructive lesion, but not themselves the seat of serious organic disease, has been largely overlooked. The matter is of some importance as an aid in local diagnosis. Its study has been made more obscure by the fact that several authors use one term, astereognosis, to include two distinct things, namely, the inability to distinguish objects by touch, on account of a more or less complete sensory failure caused by cerebral, not peripheral, disease, and the same inability caused by a fail-

ure of the ability to recall the tactile memory pictures, without any anæsthesia. The term "tactile memory picture" is, of course, metaphorical. No one would hold that there is photographed upon the brain cortex the tactile image of an apple or a book, but surely there is stored a memory of all the sensations which go to make up the touch conception of any object, and when we again feel that same object we are able to recognize it by the power of recalling the previous conception. It would be better, therefore, to keep the two conditions entirely separate and call the latter, as some authors are careful to do, mental anæsthesia, or tactile amnesia. In both there is the same inability to distinguish objects, but the cause is different in each: in the former, there is sensory disturbance; in the latter, none.

In the following case, one of true astereognosis, the inability to recognize objects by contact was associated with, and due to, the inability to distinguish the number of points of contact, though tactile sensibility itself was preserved. The symptom always appeared after a fit and was always transitory. The patient's history is as follows:

CASE.—M. F., a white woman, fifty-eight years old, was admitted to my wards at the Philadelphia Hospital, March 19, 1902, complaining of a partial palsy of the right side and convulsive attacks. The palsy had come on suddenly when she was about fifty years old, and at first had totally disabled her right arm and leg, but had improved enough in the course of a few months to enable her to walk. Some months after the stroke, she had a convulsion confined, or almost entirely confined, to the palsied side. She has had similar convulsions at irregular intervals ever since. In some she has been unconscious, in others not. The last occurred immediately before her admission to the hospital.

Examination.—She was a well nourished, dull looking, elderly woman. She could walk without aid and fairly well, but her gait was distinctly hemiplegic. All movements of the right arm were paretic and the grip was very weak. The face was not paralyzed. The right knee-jerk was much, the left slightly, exaggerated. Babinski's reflex was present on the right side. Ankle clonus was absent. There was slight muscular rigidity in the right arm and leg. Speech was normal and she read well and understandingly. She recognized and properly named all objects shown to her. She was an ignorant and rather dull woman, but presented no evidence of mental disease. Sensibility to touch, temperature, and pain was normal at all times, but when astereognosis was present she was unable to distinguish between one and several points of contact on the right hand unless they were very far apart. This was the only sensory disturbance she ever showed. She knew the position of the hand with the eyes shut. While in the hospital she had several convulsions like the following: she suddenly began to cry, complaining of pain in the right arm and

leg, and begging to have them rubbed. In a few moments the right arm and leg became rigid in tonic spasm, followed almost immediately by violent clonic spasm of the entire side, including the face. Soon the face became blue and the breathing stertorous. Finally, slight tonic spasm appeared on the left side and she lost consciousness. The attack lasted about five minutes. After it she was dull and stupid for about an hour, and there was a complete flaccid palsy of the right side which passed off in the course of several hours. Several times, but not always, when consciousness had fully returned and the temporary increase of the palsy had passed away, she was for several hours unable to recognize by contact objects placed in her right hand, though sensibility was preserved to all forms of stimuli, except that, as stated above, she could not tell whether she was touched by one or both points of the æsthesiometer. Objects put in the left hand were readily recognized and named. In some of the convulsions consciousness was not lost. Dr. Charles A. Oliver kindly examined her eyes and reported: "Right pupil, 2 mm.; left, 2.5 mm. Irides freely and equally mobile to light, accommodation, and convergence. Vision of right and left eye separately $\frac{2}{3}$ of normal. With the exception of commencing gray degeneration of both optic nerves, more pronounced in the left eye, both eye grounds were normal. The fields of vision for white and red were normal."

The diagnosis was cerebral thrombosis. The mode of onset, the symptoms themselves, the duration of the illness, the absence of heart disease, all pointed to thrombotic softening in the area of distribution of some of the branches of the middle cerebral artery. Transient palsy is not very infrequent after Jacksonian fits. It is assumed to be due to a temporary exhaustion of the cortical motor nerve cells. Total hemianæsthesia, or partial anæsthesia, i. e., the loss of sensibility to certain stimuli, is much rarer. Partial anæsthesia is probably more frequent in its occurrence than we imagine, because it is not frequently looked for. The occurrence of astereognosis is of some localizing value. It probably does not occur unless the lesion is in, or immediately adjacent to, the motor region. A prefrontal tumor may indirectly cause a local fit, but probably never astereognosis. A tumor immediately behind the motor region on the other hand could cause both.

1327 SPRUCE STREET.

The Miami Medical College, of Cincinnati, O., opened its doors on October 1st to women students, on account of the recent absorption of the Laura Memorial College, which furnished eighteen undergraduates ready to undertake the study of the medical mysteries. It is said that this co-educational arrangement is merely in the nature of an experiment, revocable in case of failure.

EDEBOHLS'S OPERATION OF DECAPSULATION OF THE KIDNEY FOR THE CURE OF CHRONIC BRIGHT'S DISEASE, AND THE INDICATIONS FOR ITS PERFORMANCE.*

By JAMES TYSON, M. D.,

PHILADELPHIA.

Although the treatment of the various forms of nephritis by operation has come to be known as Edebohls's operation, there can be no doubt that the idea of this method of cure suggested itself also to Reginald Harrison as far back as 1895. In the *Lancet* for January 4, 1896, he published a paper entitled A Contribution to the Study of some forms of Albuminuria associated with Kidney Tension, and their Treatment. In this paper he reported three cases of operation with resulting cure. In the first, he cut down upon the kidney of a youth aged eighteen years, who had had scarlatinal nephritis, expecting to find a suppurating kidney. Instead, he found a kidney distended by inflammatory products and he closed the wound under the impression that he had made a mistake in diagnosis. There was a free discharge of blood and urine for several days. The wound was lightly plugged with lint and in the course of ten days had completely healed. After the incision was made the excretion of urine became far more abundant and the albumin gradually and completely disappeared.

In 1887 he operated on a man aged fifty years, under the impression that he had a stone in his right kidney. There were colicky pains, hæmaturia, and later constant albuminuria. He cut down upon the kidney, made an incision through the cortex, and explored the pelvis with his finger, without finding a stone. There was a discharge of blood and urine which continued a long time, but on the withdrawal of the drainage tube the wound healed and the urine became quite normal.

In 1893 he operated upon a woman aged forty-four years, who had had slight hæmaturia at times for a year, and occasional albuminuria. Shortly after he saw her she had an attack of influenza followed by an aggravation of her renal symptoms, including pain on pressure, with increased and constant albuminuria. As she believed that she had passed a calculus some months earlier, Harrison thought he was justified in exploring. He found the left kidney swollen and very tense. There was a free drain of urine with some blood, which continued for a fortnight, when the wound healed. At the date of the report the urine was normal and the patient quite well.

Reviewing these cases, Harrison concluded that the first case was one of scarlatinal nephritis, the

second of nephritis from exposure to cold, and the last of subacute nephritis following influenza. In all, he said, the cure was effected by relieving the tension. He concludes with a few words as to the nature of the operation which might be appropriate in cases of suspected kidney tension and as to the time and occasion of its application. The operation advised was that usually adopted for exploration of the kidney by the finger through a small transverse lumbar incision. It should "be reserved," he says, "for cases where there is evidence that the recuperative power of the kidney suffering from nephritis, is overweighted. Where after an attack of this kind the albumin is not disappearing from the urine, and there is a prospect, unless some relief is found, of permanently damaged kidney resulting, then a trial of this expedient may be undertaken without adding to the gravity of the circumstances." It will be noted that the operation thus recommended is not decapsulation, but simply section of the capsule of the kidney, the object being to relieve the tension of the organ within the capsule.

In the same number of the *Lancet*, p. 166, is contained an abstract of a paper by Dr. David Newman, of Glasgow, on Intermittent Hydronephrosis and Transient Albuminuria in Cases of Movable Kidney. He describes four cases, in two of which he performed nephrorrhaphy for the cure of transitory hydronephrosis, and two in which the same operation was resorted to for the relief of torsion of the renal blood-vessels causing albuminuria and tube casts in the urine.

The suggestion of Edebohls to treat chronic Bright's disease by operation was made in a paper entitled Chronic Nephritis Affecting a Movable Kidney as an Indication for Nephropexy, published in the *Medical News*, April 22, 1899. The operation grew out of the favorable results following in four of six cases in which he had performed nephropexy for the purpose of anchoring a movable kidney in the presence of well marked chronic Bright's disease. In five of these six cases nephropexy was done without any idea of influencing favorably the chronic nephritis known to exist; the indication for operation being given solely by the existence in an aggravated degree of the usual symptoms due to mobility of one or both kidneys. The effect of the operation upon the coexisting Bright's disease was simply hazarded in view of the necessity of relieving the patient of these intolerable symptoms. The first case was operated upon on November 29, 1892, the fifth on April 1, 1897.

The complete and permanent disappearance of albuminuria and casts from the urine and the restoration of enduring and perfect health of three of the five patients led him to advise bilateral nephropexy in his sixth patient, a sufferer from chronic Bright's disease complicated with movable kidney.

* Read at the meeting of the Medical Society of the State of Pennsylvania, at York, Pa., September 22, 23 and 24, 1903.

He operated on this patient mainly with the object of influencing the chronic nephritis. The operation was performed January 10, 1898, and "consisted in extensive decapsulation followed by fixation of both kidneys." As a result, the patient, a girl, aged twenty, was radically cured of her chronic Bright's disease and remains so to this day. She has since married, and in March, 1903, she was five months pregnant. "At the time," he says, "the idea that the cure of chronic Bright's disease in these cases was mainly, if not altogether, due to correction of the position of the kidney dominated my mind. Further experience, however, and observation made on the occasion of second operations, gradually evolved the conviction that the *decapsulation* was mainly responsible for the good results obtained." Up to the end of 1902 he had operated on 51 cases of chronic Bright's disease, all of which but three he had the rare good fortune to follow up to the date of his paper in the *New York Medical Record*, March 28, 1903.

Of the 51 patients, 29 were females and 22 were males. With the exception of a girl aged four years and a half, all were adults. The oldest patient was sixty-seven, and the average age was thirty-four years. Of the entire 51, 29 had chronic interstitial nephritis, 14 had chronic diffuse nephritis, and 8 had chronic parenchymatous nephritis. In all the cases of chronic diffuse nephritis and chronic parenchymatous nephritis both kidneys were affected, although in unequal degrees. Edebohls's operative experience developed the surprising fact that in nine cases of interstitial nephritis the disease was confined to one kidney, quite a blow to the generally accepted view that all Bright's disease is symmetrical.¹

Of the 51 cases, death occurred in fourteen, at periods after the operation varying between twelve hours and eight years. Of these, two died an accidental death, one of acute suppurative pyelonephritis, five of uræmia, one of pneumonia, three of acute dilatation of the heart, and one of combined uræmia and cerebral hemiplegia. Of the fourteen deaths seven occurred at periods between two months and eight years after operation; the average duration of life being one year and eight months. The remaining seven died at periods varying from twelve hours to fifteen days. These, in view of the causes and date of death, should in fairness be alone accounted as fatal cases, making the mortality $13\frac{2}{3}$ per cent. Ten recovered completely, one of these dying later of accident. Deducting three, which were lost sight of, the seven who died shortly after the operation, and two who, though they

survived it, seem unimproved, there remain 39 cases more or less benefited, including the 19 completely cured. Several of these not reported as cured were also free of all symptoms including albumin and casts, but they were not counted cured because the probationary period of six months of normal urine had not passed at the date of the report. In connection with these results should be mentioned also the fact that Edebohls was forced to accept for operation some almost hopeless cases, because of the insistence of physician and patient, sometimes represented in one, that they should have whatever chance of benefit the operation afforded.

My experience with this operation is limited to one case, but it has been of a kind to satisfy me that it is an operation at least life-prolonging in many cases and curative in some, and although its position may not be as yet precisely determined, it is an operation which has come to stay, and may even be extended to other cases than those of nephritis in its various forms.

The case referred to is as follows:

Fannie W., aged nine years, born in Philadelphia, was admitted to the Hospital of the University of Pennsylvania, November 11, 1902. She had scarlet fever when four years of age (five years before admission). During and immediately after the fever she had no dropsy. One year after, however (four years before admission), she presented symptoms of acute nephritis, including albuminuria and general anasarca, which responded promptly to treatment at a hospital in New York city. Subsequently to this she had five relapses, for which she was treated at different hospitals in this city, with more or less complete recovery, each attack requiring more time to overcome it. The last relapse set in about two weeks before she consulted me, when she had general anasarca with ascites, albuminuria, and casts. The œdema was extreme. The face was so swollen that the eyes were almost closed, and the abdomen was enormously distended with fluid. She was sent to the University Hospital, where the examination was completed. Her temperature was 99° F., the pulse 126, the breathing rate 28. There did not appear to be much fluid in the pleural cavities, and the lungs were normal. The cardiac action was feeble; there were no murmurs, but the second aortic sound was accentuated. The liver outline was difficult to obtain because of the ascites, but seemed normal. The urine on admission was acid in reaction, specific gravity 1016, and contained one half its volume of albumin; there was no sugar. The microscope found pale granular, medium granular, and dark granular casts; also free fatty renal cells. The quantity secreted during the first twenty-four hours was twenty ounces. The blood examination found 45 per cent. of hæmoglobin, with 6,320,000 red corpuscles—probably an erroneous estimation.

The patient was immediately put to bed on a milk diet, and ordered cardiac tonics, with eliminative treatment by saline cathartics and hot packs. The remedies acted as they were expected to, and some relief to symptoms followed, but it was incom-

¹ Too much weight should not, however, be allowed to this observation, made of necessity hastily during operation, as contrasted with leisurely conducted autopsies, which declare emphatically in favor of all forms of Bright's disease being symmetrical.

plete. On November 18th paracentesis abdominis was done, but on account of a defective instrument only six ounces of a clear fluid were withdrawn.

Under treatment the urine secreted was increased at one time to thirty ounces, and there was some diminution in the anasarca, but it was only temporary. Paracentesis abdominis was done repeatedly, with the removal of a clear spring-water liquid, and so persistently did the ascites return that some concurrent cirrhosis of the liver was suspected. She became very much reduced in strength, and after all medical treatment had been unavailing and it seemed she must die unless something else was done, she was transferred to the wards of Dr. Frazier, January 11, 1903, for operation, which was done on January 13th, a large accumulation of abdominal fluid being first removed. She was so weak that it was thought unwise to operate on both kidneys at once, and accordingly at the first operation the right only was decapsulated.

The immediate effect of the operation was truly astonishing. In the first twenty-four hours after it was done the quantity of urine secreted was only 21½ ounces, but in the second twenty-four hours it reached 42½, in the third 72½, in the fourth 102, in the fifth 63 ounces, and in the sixth 60 ounces. In ten days after the operation ascites and anasarca had entirely disappeared and continue absent up to the present time. Before the operation the volume of albumin was one half; but the middle of February it had fallen to one tenth the volume of urine tested. For three weeks prior to the second operation the patient was allowed to be up and about, after which the albumin largely increased, becoming almost as large as when she came under observation. The casts did not disappear, but continued quite numerous up to the date of the second operation.

On March 14th, just two months after the first operation, the left kidney was decapsulated by Dr. Frazier. Surgically the case progressed rapidly to healing of the wound.

After the second operation, the urine, of course, did not increase as it did after the first, as there was no œdema to drain off, but ranged from 30 to 60 ounces in the twenty-four hours. Four days after the operation the albumin measured one sixth volume, with hyaline and pale granular casts. About April 2nd the patient was allowed to get up, but almost immediately the albumin increased to one half volume, and she was promptly returned to bed (April 6th). Since that time there has not been any marked reduction in the quantity of albumin; in fact, it has remained about the same. The urine has, however, been secreted freely, and the casts have been mainly hyaline and slightly granular. The patient has again been allowed to get up, and has remained free from dropsy and is, in fact, the picture of health. It cannot be said that there has been a cure, and it is impossible to say that there will be. On the other hand, there can be no doubt the patient's life has been saved, and apart from the urinary evidences she is seemingly in perfect health.

She was last seen September 23rd, when there remained 1/3 volume of albumin and a few hyaline casts in the urine and she was the picture of health.

The original report of my case to the Association of American Physicians, at its meeting in May

of this year, elicited reports of four cases, all of which were greatly benefited by the operation, although one after decided improvement died in the third month after operation. One was reported by Dr. McPhaedran, of Toronto, and three by Dr. Cutler, of Boston.

It is perhaps too early to insist upon any one explanation of the favorable effect of this operation on the diseased organs. I have mentioned that Reginald Harrison ascribed it to the diminished tension which succeeds on slitting up the capsule. Edebohls ascribes the good results to the decapsulation and concludes that the operation acts by removing "a barrier in the shape of the capsule to the creation of a new and increased and more active blood supply to the diseased kidney." He further says, "the removal of this barrier is followed by the formation on the most extensive scale of new vascular connections between the kidney and its fatty capsule. The removal of inflammatory products by absorption and the new formation of epithelium, capable of carrying on the function of secretion, are the direct results of this increased blood supply and improved circulation of the kidney." I have already said he evolved this conclusion from observations made upon the occasion of second operations upon kidneys previously anchored at periods more or less remote from the first operation. These views are, however, controverted by the results of experiments by Dr. Harold A. Johnson, of San Francisco, reported in the *Annals of Surgery* in April, 1903. Johnson decapsulated the kidneys of ten dogs and examined the kidneys at various dates after the operation. The dogs remained perfectly well so far as health was manifested by appetite, strength, and playfulness. These studies went to show that there is gradually formed a new capsule sometimes thinner but more often thicker than the original. There was sometimes an infiltration of round cells and a proliferation of intertubular connective tissue, but in no case was there any considerable anastomosis between the renal and perirenal vessels.

If one stops to think of the morbid anatomy of chronic nephritis it seems clear that the chief obstacle to repair is really an anæmia, or avascularity. In chronic parenchymatous nephritis the blood is expressed from the vessels, and nutrition is interfered with by the exudate within and without the tubules. As a consequence, the cells, after an effort at life, degenerate and die. In interstitial nephritis the vessels are compressed and destroyed by the interstitial fibroid overgrowth, and thus again the nutrition is cut off. Now strip off the strong, tough capsule and a powerful resistance to the movement of blood is removed. It again moves freely through the organ, the free secretion of urine is

again possible, normal nutrition again asserts itself, and the power of repair returns.

In acute nephritis quite the same condition exists. Although there is first intense hyperæmia this is soon replaced by an avascularity, so far as the capillaries, on which depend the phenomena of nutrition, are concerned,—due to the pressure of proliferated cells and an extravasated blood. On the other hand, acute nephritis has quite rarely come under operation. All of the cases reported by Edebohls were cases of chronic nephritis either parenchymatous or interstitial. Two of Harrison's original cases, however, were acute nephritis, and one was subacute. I am inclined, therefore, to believe it is the relief from intracapsular pressure that favors the restoration of function and nutrition, especially in the light of Johnson's studies, which fail to find the intervasculature of the renal and perirenal tissue claimed by Edebohls. In other words, it is the removal of tension at first suggested by Harrison.

From a careful study of the cases of Harrison and Edebohls, as well as my own and such other cases as have come under my notice, I am satisfied that the operation is a serviceable one, and that many lives may be saved, and prolonged, and even cures obtained, by its judicious application. To use a homely but emphatic and applicable expression, I believe "the operation has come to stay."

I have said "its judicious application," as though this was difficult, but it is not difficult to select suitable cases. In the first place, I take it for granted the operation should not be done until the usual medical measures of treatment have been thoroughly applied. Yet, the operation should not be deferred until the patient is moribund. Certainly, the chances of recovery must be greatly increased where the disease has not been allowed to go too far.

Again I consider cases of parenchymatous nephritis more favorable for operation than cases of interstitial nephritis, although Edebohls's cases include twenty-nine of the latter variety and twenty-two of the former. It is reasonable, however, to expect earlier and more complete repair in parenchymatous nephritis, since there is not so much actual destruction of vessels as simple compression. They can therefore more readily resume their natural calibre and admit the circulation of blood through them, whereas in interstitial nephritis, especially if advanced, there is more complete obliteration of the kidney tissue. Moreover, the capsule is stripped off with much more difficulty in interstitial nephritis, often dragging some of the substance of the organ with it, while in parenchymatous nephritis the capsule strips off easily.

Thirdly it is not reasonable to expect results as satisfactory where there are extensive cardiovascular changes. These once established are permanent.

They become the real source of danger to life where they exist, and the operation of decapsulation does not remove them. A study of Edebohls's cases goes to show that those least benefited included cases of this kind. Such cases are generally those in which advanced retinal changes, including albuminuric retinitis and retinal hæmorrhage, are present.

I have intimated that the operation may have further applications than those considered. Thus Edebohls reported to the American Gynecological Society, at its meeting in May, a case in which he decapsulated both kidneys for puerperal eclampsia with satisfactory results. But the further application I have in mind is obstinate so called idiopathic hæmaturia, cases in which there is no stone, no malignant growth, no malaria, but which persist month after month and gradually devitalize and destroy the patient. I have one such case in mind now in which I will advise the operation if the hæmaturia persists.

I am encouraged to give this advice because the operation is not a dangerous one in the hands of a competent surgeon. Its details belong to the surgeon, but being postperitoneal, the dangers of peritoneal infection are comparatively small. The surgeon should, however, be a competent one, and have had experience with renal surgery. There is sometimes difficulty in reaching the kidney, especially in fat persons, and those in whom the distance between the twelfth rib and the rim of the pelvis is small, or where the kidney is high up beneath the ribs. I should prefer therefore to have as an operator a surgeon who has performed the operation before, or who is familiar with the technique of renal surgery. Some interesting cases of failure are related by Edebohls, which are not very creditable to the operating surgeon.

The Massachusetts General Hospital opened its new building for outpatients on August 31st. There were some three hundred and fifty clinical visitors. The new structure, at the foot of Fruit Street, is built of brick, is L shaped, and three stories in height. On each floor is a large and airy waiting room, laboratory, lavatory, and lockers, and a cork floored room for stethoscopic examinations. Finsen and x ray light apparatus have been installed, and complete outfits of surgical instruments. The cost of the building and its equipment exceeded \$400,000.

The Touuro Institute, of New Orleans, La., graduated a class of eleven young women as trained nurses on September 29th, the following receiving diplomas: Mary Modesta Carolin, Francina Semple Hollingsworth, Eleanor Brook Bridges, Corinne A. M. Lehmann, Mary M. Bethancourt, Juliet E. Enders, Julia M. Schopfer, Josephine A. Eitel, Rosalind R. Hoffman, Tallulah Pritchard, and Mrs. Amy Walter.

STILLBIRTH DUE TO STRANGULATION
OF THE FUNIS.

By J. MILTON MABBOTT, M. D.,

NEW YORK,

ATTENDING OBSTETRICIAN, NEW YORK INFANT ASYLUM.

The drawing illustrates the disposition of the funis responsible for the death of the fœtus about ten days before delivery. The latter occurred in private practice, August 25, 1903, at full term.



As the body was born the cause of stillbirth was plainly seen to be a condition of strangulation of the cord, which took a spiral turn around the right upper arm, emerging from the front of the axilla, thence passing around the back of the neck on its way to the umbilicus. The cord was about seventeen inches in length and the point of strangulation was at the axilla, where it was gripped very tightly by the arm.

19 FIFTH AVENUE.

The American Confederation of Reciprocating Examining and Licensing Medical Boards.—A meeting of this confederation will be held at the Southern Hotel, St. Louis, Mo., Tuesday, October 27th next, at 2 p. m. This meeting will not only be of great interest, but promises to be exceptionally well attended by representatives of State boards desiring practical inter State reciprocity in medical licensures in the near future. Reciprocity certificates are at this time being issued daily between several of the States, members of and in sympathy with the confederation, and the executive officers of such reciprocating boards will be present at the meeting and will severally give brief addresses upon Reciprocity from the Standpoint of Experience in the Interchange of State Licenses. Several eminent medical men throughout the United States not directly connected with medical boards have been invited to attend the meeting, and to take an informal part in the proceedings. Among others who have accepted are Dr. Frank Billings, of Chicago, President of the A. M. A.; Dr. William E. Green, of Little Rock, Arkansas, member of Committee on Medical Examining Boards, A. I. H.; Dr. Charles A. L. Reed, of Cincinnati, ex-President A. M. A., and Dr. Frank J. Lutz, of St. Louis, secretary-general of the World's Congress of Medicine, 1904. All State boards are cordially invited to be represented at this meeting at St. Louis, October 27, 1903.

Our Subscribers' Discussions.

A SERIES OF PRIZE ESSAYS.

Questions for discussion in this department are announced at regular intervals. So far as they have been decided upon, the further questions are as follows:

XXVI.—How do you treat "habitual abortion"? (Under adjudication.)

XXVII.—How do you treat paraphimosis? (Under adjudication.)

XXVIII.—What do you rely on in the diagnosis of smallpox in the papular stage? (Answers due not later than November 10, 1903.)

Whoever among our subscribers (with the limitations mentioned below) answers one of these questions in the manner most satisfactory to the editor and his advisers will receive a prize of \$25. No importance whatever will be attached to literary style, but the award will be based solely on the value of the substance of the answer. It is requested (but NOT REQUIRED) that the answers be short, if practicable, no one answer to contain more than six hundred words.

Only subscribers to the NEW YORK MEDICAL JOURNAL AND PHILADELPHIA MEDICAL JOURNAL (including regular and volunteer officers of the Medical corps of the United States Army, Navy, and Marine Hospital Service, commissioned or under contract) will be entitled to compete, and all persons known to be engaged in medical journalism are disqualified. This prize will not be awarded to any one person more than once within one year. Every answer must be accompanied by the writer's full name and address, both of which we must be at liberty to publish.]

The prize of \$25 for the best essay submitted in answer to question XXV has been awarded to Dr. J. R. Clemens, of St. Louis, whose article appears below.

PRIZE QUESTION NO. XXV.

THE TREATMENT OF DELIRIUM
TREMENS.

By J. R. CLEMENS, M. D.,

ST. LOUIS.

The chronic alcoholic is always underfed and generally the possessor of a fatty heart and unsound kidneys, with a special liability to pneumonia and sudden accesses of temporary insanity (delirium tremens), wherein he is apt to attempt his own or other people's lives, the attack ending in three or four days, either in recovery or in death from suicide or asthenia, or from pneumonia.

Prophylaxis.—When a chronic alcoholic becomes fidgety, complains of insomnia, and is off his drink, an attack of delirium tremens is not far distant. These same prodromal symptoms must be watched for in chronic alcoholics confined to bed by reason of an accident or an acute illness. Abortive treatment, consisting in opening the bowels, moral suasion, and two-hourly feedings of milk or beef juice, with some sedative, such as sulphonal or paraldehyde, may do much to avert the attack.

Treatment of the Attack.—Lobar pneumonia may have precipitated an attack, therefore it is of vital importance to ascertain if it is present from the first,

this consideration naturally leading to the question as to whether it is wiser to withhold or to give alcoholic stimulants in an attack of delirium tremens.

Stimulants.—When we remember that the chronic alcoholic undereats and that his delirium is consequent thereon, being directly comparable to the delirium of inanition fever, food becomes the chief indication in treatment. We must get him to take food, as it is a sovereign necessity, and if he is old and weak, or if the attack is severe, I would give whiskey or brandy without hesitation and for two reasons: 1, As a bribe to get him to take his food; 2, As a stimulant to the heart, which is weak. A further advantage consists in combating the insomnia so constantly present. If, on the other hand, the patient is young, fairly well nourished, and in his first or second attack, alcoholic stimulants are contraindicated. So also are narcotics.

Having discriminated in the use of stimulants, the general treatment is as follows:

Food.—Milk, raw or peptonized, every two hours, alternating with strong beef juice.

Medicinal.—A dose of calomel at the onset, to be followed by an occasional saline. A bitter tonic in which strychnine occupies a place. If the first heart sounds become weak, strychnine hypodermically.

Insomnia.—The room should be dark, cool, and quiet. If insomnia is urgent a choice from the following will promote sleep: Hydrobromide of hyoscyne ($\frac{1}{200}$ to $\frac{1}{100}$ grain) hypodermically; sulphonal or paraldehyde by the mouth.

Opium and chloral hydrate are positively dangerous by reason of the probable condition of the kidneys and heart respectively.

Suicide.—A never flagging watchfulness on the part of the nurse or nurses (if the patient is very powerful). He must be constantly under observation. All lethal instruments must be removed.

Attempts to Leave Bed.—Moral suasion, seconded, if necessary, by passing a draw sheet across the patient and tying its ends together beneath the bed.

As the delirium may be secondary to the state of the lungs, treatment consists in keeping a constant ear to the heart and a finger to the pulse, exhibiting stimulants without restraint where necessary.

Where recent injury has precipitated an attack, treatment must be more adroit and, of necessity, is more difficult.

319 NORTH GRAND AVENUE.

Dr. George S. Weever, of Indianapolis, writes:

The treatment of delirium tremens (mania a potu) being based entirely upon the conditions presenting in each case, we cannot be too careful in our examination, looking for apoplexy, meningitis, ery-

sipelas, and accidents, and paying special attention to the lungs, as pneumonia is not an infrequent complication.

It has been demonstrated that better results are obtained from a rational, or expectant, plan than from an indiscriminate use of sedatives, as has been in vogue in the past. Having determined the character of a case, our treatment resolves into three important phases: 1. Constant watching, and restraint when necessary. 2. Quieting measures. 3. Stimulation. All should vary according to the severity and complications.

Too much emphasis cannot be placed upon the importance of constant vigilance.

Such patients should not be left alone a second, and no doubt many of us can recall horrible and fatal results from the slight neglect of an attendant or nurse.

Use as little restraint as possible, for it often increases the excitement.

When absolutely necessary, strap down the limbs and body with a sheet, and place leather gauntlets on the wrists and ankles, being careful not to bind the body so as to greatly impede respiration. In mild cases much can often be accomplished by agreeing that the objects of hallucination exist, and proceeding apparently to kill them.

In this way short intervals of quiet can be induced by "suggestion," administering sedatives during such periods.

There are so many hypnotics that have been used from time to time that one finds himself engulfed, and not one of them could or should be depended upon in all cases, and a free use of common sense must always be employed.

I have used the following drugs and have found them very efficacious, separately or in combination: Ammonium bromide, 1 drachm; morphine sulphate, $\frac{1}{4}$ grain; chloral hydrate, 10 to 15 grains. I have also used trional, 10 to 20 grains, and hyoscyne hydrobromide, $\frac{1}{50}$ to $\frac{1}{100}$ of a grain, hypodermically. All these, with the possible exception of ammonium bromide, are sometimes either contraindicated, or must be used very cautiously, morphine and hyoscyne often increasing the delirium and trional and chloral being decided heart depressants. I have used cold douches and packs in relieving the delirium, especially when high fever existed.

In asthenic cases, with feeble pulse, and where sleep is difficult to induce, it is often better to tide over the restlessness by moderate doses of hypnotics than to risk pushing them excessively, for in the majority of such cases sleep is finally induced upon the second and almost always upon the third or fourth day by stimulation.

With the exception of cases with a good, strong.

bounding pulse (general plethoric types), stimulation is an all-important measure. Strychnine sulphate ($\frac{1}{20}$ to $\frac{1}{40}$ grain), digitalis and capsicum are among the stimulants I employ. I always withdraw the alcohol, except in cases with a feeble, rapid pulse, which seem not to improve much from other stimulation or where pneumonia is a complication, in which cases I give it freely.

Careful feeding is probably the most important, and milk, eggs, beef-teas, and stimulating broths should be given in large quantities at short intervals. If the stomach is so irritable that it will not retain food of any kind, I should resort to giving concentrated predigested foods by enema.

The secretions and excretions all being locked up and the system saturated with the poison, it is well, after the active delirium is past, to give a large dose, say from 6 to 10 grains, of calomel, together with morphine sulphate, $\frac{1}{4}$ grain, or Dover's powder, 10 grains, at bedtime, following with a saline the next morning, if necessary to obtain satisfactory results. I have frequently cut short what seemed to be the first stage of delirium tremens by giving such a dose.

The next few days after my patient has recovered from the acute delirium, I always give the following capsule:

℞ Quinine bisulphate..... 2 grains;
Capsicum 2 grains;
Extract of nux vomica..... $\frac{1}{4}$ grain.

Delirium tremens, in a majority of cases, runs a course little influenced by medicine, and we at best can but guide our patient through by properly administering stimulants and sedatives, keeping up the heart, controlling the delirium, and protecting him from his own violence.

Dr. H. K. Glidden, of Lynn, Mass., writes:

If the alcoholic debauch has been sufficiently prolonged and sufficiently deep, a condition known as delirium tremens intervenes. Everybody knows what a "terror," both to his family and friends, a patient in such a condition is; and even in the hospitals cases of this class are looked upon as most difficult to deal with. Measures should at once be instituted such as are indicated in ordinary delirium when associated with extreme exhaustion. Almost always a certain amount of physical restraint is necessary, and to this end I order the patient put to bed and fastened by means of sheets drawn firmly over his body or limbs, care being taken not to interfere with the respiration. For the best interests of the patient and those surrounding him, a sedative must be given, and right here let me say that I do not believe that the remedies so commonly used, such as the bromides, chloral, and hyoscine prepa-

rations, exert their influence soon enough or in a sufficiently pronounced degree to warrant our fruitless endeavors to coax or force our patients to take them. After a hospital experience and one in private practice, I have finally given up the use of these drugs, and now confine myself to the following treatment: First, with the aid of a friend or hospital attendant, as it may be, I take charge of my patient personally, get him or her into bed, and administer a hypodermic injection of apomorphine hydrochloride, $\frac{1}{10}$ grain to $\frac{1}{8}$ grain, into either the upper arm or the thigh, in fact whichever part presents itself first. After, from two to five minutes following the injection signs of nausea and finally vomiting ensue, usually much undigested material and perhaps some unabsorbed alcohol is ejected; for a period of from eight to twelve minutes emesis will continue. Immediately following the attempts to vomit, the patient will fall back upon the bed apparently exhausted, and at once show a tendency to quiet down and subsequently sleep. It is rarely necessary to repeat the dose, but I do not hesitate to do so if my patient does not succumb to the initial injection, for I verily believe that such patients need rest and sleep. As these cases are types of profound exhaustion, I do not leave my patient directly, but instead remain to assure myself of the heart's action, for only too often heart failure ensues from weakness and depression. If the heart shows any signs of weakness I administer $\frac{1}{30}$ of a grain of strychnine phosphate hypodermically. Assured that my patient will remain quiet for the next five to eight hours, I leave six to eight half grain tablets of calomel, with directions to begin the doses as soon as the patient awakens, one every hour until all are taken, followed by a seidlitz powder in hot water, or a tablespoonful of castor oil, which will relieve the upper intestinal tract; but it is far better first to unload the lower bowels by a soap and water enema, and I so order it in the hospital and in my private work when it can be had, also that my patient shall have a milk diet for the next two days. After the delirium has passed the patient will show signs of extreme nervous exhaustion, especially those of repeated attacks, and here one can use any of the milder nervous sedatives.

If the stomach is irritable I prescribe the following:

℞ Bismuth subnitrate, } of each, 1 drachm;
Cerium oxalate, }
Sodium bicarbonate, 24 grains.
Divide into 12 powders.

Sig. One powder every four hours.

In conclusion I would say:

Get your patient under control and asleep as soon as possible. Fortify the weak and depressed heart with strychnine. Do not leave your patient until in

your judgment he is in a safe condition. Follow the sleep and rest by a cathartic, then a careful diet of milk and a mild, nervous sedative. Do not use morphine or opium in any form otherwise than stated. Favor elimination by all the channels at your command, to rid the system of the toxins that have accumulated.

(To be continued.)

Therapeutical Notes.

The Glycerophosphates Hypodermically: A Correction.—An "Old Reader" kindly calls our attention to the serious error occurring in a therapeutical note with the foregoing heading, in our issue for September 26, 1903, p. 612. The amount of strychnine arsenate should obviously be 20 centigrammes (3 grains), not 20 grammes (5 drachms) as there stated. We reproduce the prescription in a corrected form:

- R Sodium glycerophosphate } of each.....5 grammes
Caffeine benzoate } (75 grains);
Strychnine arsenate.....20 centigrammes (3 grains);
Distilled water.....100 grammes (3½ ounces).
M. For hypodermic use.

Treatment of Chronic, Atrophic Gastritis.—Robin, according to the *Bulletin général de thérapeutique* for July 23rd, advises for the obstinate vomiting:

- R Picrotaxine5 centigrammes (¾ grain);
Alcoholenough to dissolve;
Morphine hydrochloride.....5 centigrammes (¾ grain);
Neutral atropine sulphate.....1 centigramme (⅞ grain);
Ergotine1 gramme (15 minims);
Distilled cherry-laurel water.....12 grammes (3 drachms).
M. Five drops before each drink of milk; not more than twenty-five drops in the twenty-four hours.

For the pain liable to follow ingestion of milk:

- R Calcined magnesia } of each.....4 grammes
Sodium bicarbonate } (1 drachm);
Prepared chalk.....6 grammes (1½ drachms).
M. Divide into 12 powders; one at a dose.

If this does not relieve, take along with the milk seven grains of pepsin and a pill or two of pancreatin, keratinized.

For constipation, hot water, a quart with the addition of ten drops of tincture of sage, should be taken fasting; if that is not sufficient, try the following pill:

- R Socotrine aloes.....6 centigrammes (⅑ grain);
Gutta percha.....3 centigrammes (⅓ grain);
Extract of belladonna } of each.....5 milligrammes
Extract of hyoscyamus } (⅙ grain);
Extract of licorice.....10 centigrammes (1½ grains).
M. Dose, one to three such pills.

If, instead of constipation, there should be diarrhoea, a small cupful of a hot infusion of the root of the wild strawberry or simaruba may relieve; if not, try the following:

- R Dioscorea root } of each.....4 grammes (1 drachm).
Bismuth subnitrate }
M. Divide into 16 boluses.

For Acute Vaginitis.—Lutaud, quoted by the *Journal de médecine de Paris* for September 6th, advises:

- R Neutral glycerin.....250 grammes (8½ ounces);
Tannic acid.....50 grammes (1½ ounces);
Sydenham's laudanum.....10 grammes (2½ drachms).
M. Tablespoonful in a quart of warm water, for injection.

For the Acne of Young Girls.—Dauchez, according to the *Journal de médecine de Paris*, for September 6th, recommends:

- R Powdered calumba }
Powdered saffron } of each.....1 gramme (15 grains);
Iron by hydrogen }
Aloes50 centigrammes (7½ grains).

M. Divide into 10 powders; one in a morsel of unleavened bread with the noonday meal

This should be taken for ten days, then intermitted for ten days; during the interval the bowels should be kept open with salines. Every night there should be a warm enema of soapy water. Next morning the following should be applied to the affected region:

- R Sulphuric ether.....15 grammes (225 minims);
Sodium borate.....10 grammes (150 grains);
Water250 grammes (8½ ounces).
M. For a lotion.

The Treatment of Wounds.—Colleville, according to *Médecine moderne*, for September 9th, objects to hydrogen peroxide as being a painful application, and soaks his dressings in the following sterile solution:

- R Water1 litre (1 quart);
Sodium chloride.....5 grammes (75 grains);
Sodium sulphate.....10 grammes (150 grains);
Sodium phosphate.....10 grammes (150 grains);
Corrosive sublimate.....50 centigrammes (7½ grains).
M. For dressings.

The sublimate is added, not as an antiseptic, but to encourage leucocytosis.

When repair is well advanced and stimulation is no longer necessary, Colleville substitutes:

- R Water1 litre (1 quart);
Sodium chloride.....1 gramme (15 grains);
Sodium sulphate } of each.....10 grammes
Sodium phosphate } (150 grains).
M. For preparing dressings.

Chorea in Children.—*Journal des praticiens*, for September 5th, speaks of the value of the cold pack and of prolonged tepid baths for choreic children, and ranks antipyrine with arsenic internally:

- R Antipyrine10 grammes (150 grains);
Syrup of bitter orange peel.....200 grammes (6⅔ ounces).
M. Dessertspoonful every two hours.

To this treatment may be added the following suppository:

- R Quinine hydrobromide.....30 centigrammes (4½ grains);
Cacao butter.....2 grammes (30 grains).
M. One suppository for a six year old child; at night.

At the end of a week, small doses of arsenic may be substituted:

- R Sodium arsenate.....2 centigrammes (⅑ grain);
Distilled water.....200 grammes (6⅔ ounces).
M. Dessertspoonful at midday and at dinner time.

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UNIFICATION WITHIN SIGHT AT LAST.

We are very glad to be able to say that, quite unexpectedly, there seems now to be an excellent prospect of the long sought for amalgamation of the Medical Society of the State of New York and the New York State Medical Association. The negotiations which have led up to this state of things—not counting those that necessarily came to an end when the society declined to accede to the association's proviso to the effect that it should seek for a new charter—began soon after the last meeting of the American Medical Association. On May 28th the conference committee of the Medical Society of the State of New York sent the following communication to the president of the New York State Medical Association:

At the last meeting of the Medical Society of the State of New York the committee on conference appointed to confer with a similar committee of the New York State Medical Association, after making its report, was continued and instructed to await the action of the American Medical Association at New Orleans before considering further the methods of amalgamating the regular profession of the State of New York. At a recent meeting of the American Medical Association radical action was taken removing the obstacle which prevented unification. Appreciating the fact that no further barrier stands in the way of unifying the profession of the State of New York into a single State society, the committee representing the Medical Society of the State of New York would respectfully ask the New York State Medical Association that further conference with its representatives be arranged with the object of speedily settling upon a definite plan which shall form the basis for amalgamation of the two existing bodies. In making this request the committee representing the Medical Society of the State of New York assures the association of its earnest desire to in-

crease the influence of the State profession by the action suggested; that it would further state to that body that it is ready to suggest to the Medical Society of the State of New York that it amend its charter to continue, consolidate, and amend Chapter 138 of the Laws of 1806, Chapter 94 of the Laws of 1813, and Chapter 452 of the Laws of 1900 for the purpose of cultivating and advancing the science of medicine, the promotion and protection of public health, and the establishment of a death benefit fund for the dependents of the members of the Medical Society of the State of New York. That it feels justified still further in assuring the association that it will recommend to the State society the method of organization founded upon the plan suggested by the American Medical Association and considered by the joint conference when in session in April, 1902, and that all other matters of detail which must be considered before final action can be taken by the respective societies must of necessity become subjects for conference. The committee asks for careful deliberation in conference, that both the society and the association may in the near future be able to present completed and satisfactory plans to the State bodies for ratification.

To this communication the president of the New York State Medical Association, Dr. Frederick Holme Wiggin, replied that he would present it to the association's council at the earliest practicable moment for consideration and action. The council met the proposition cordially, and the consequence was that on October 1st a special meeting of the council and fellows of the New York State Medical Association was held, at which the following action was unanimously taken, on motion of Dr. Joseph D. Bryant, seconded by Dr. John A. Wyeth, and Dr. E. D. Ferguson:

Whereas: The members of the New York State Medical Association desire a union of the medical profession in the State of New York, and

Whereas: It is deemed expedient for the attainment of the purpose to make further effort to bring together the New York State Medical Association and the Medical Society of the State of New York under the name of the Medical Society of the State of New York,

Resolved: That a committee of five be appointed by the chair, and said committee is hereby empowered to do whatever is necessary and expedient to bring about such a union in a just and equitable manner, and

Resolved: That the committee so empowered may confer, cooperate, and unite with a committee of the Medical Society of the State of New York for the purpose of forming said union of the two medical organizations, and

Resolved: That a copy of these resolutions be transmitted to the secretary of the Medical Society of the State of New York, with a request that their conference committee be granted similar powers.

The committee appointed in accordance with these resolutions is constituted as follows: Dr. E. Eliot Harris (chairman), Dr. Julius C. Bierwirth, Dr. Alexander Lambert, Dr. Parker Syms, and Dr. Wisner R. Townsend. The conference committee representing the Medical Society of the State of New York consists of Dr. Harry L. Elsner (chairman), Dr. Abraham Jacobi, Dr. Albert Vander Veer (all ex-presidents), Dr. George R. Fowler, and Dr. Frank Van Fleet. The semi-

annual meeting of the Medical Society of the State of New York is to be held next week, on Tuesday and Wednesday, and on Tuesday evening there is to be a special meeting, called in due form by the president, Dr. Algernon Thomas Bristow, of Brooklyn, for the purpose of considering the question of giving plenary power to the society's conference committee to come to an agreement with the association's committee.

This special meeting, it is safe to say, will be the most momentous in the history of the Medical Society of the State of New York. Upon its action depends the issue of almost immediate unification or indefinite prolongation of groundless and disgraceful discord. Every member has been notified of the purpose for which the meeting is to be held, and it is the duty of every one of them to attend it if possible. The New York State Medical Association has acted nobly. Let the Medical Society of the State of New York do the same. If it fails to do so, it will go down to posterity as having deliberately perpetuated estrangement between itself and the American Medical Association. Such work as is necessarily involved in composing the differences between the two organizations cannot be done on the floor of a meeting of the whole; it must be done by the committees, and they must have plenary power.

We can imagine no reasonable ground of opposition to the course here recommended, but there may be disgruntled individuals who will harangue the meeting in opposition to it. Consequently we call upon every reasonable member of the society to frown down and vote down any such opposition. It may be urged that the society should not bind itself in advance to abide by the doings of a committee. But this contention will be seen to be very specious when we consider that nations—certainly far more weighty organizations than medical societies—confer upon commissioners full powers to draw a treaty of peace. Who can imagine that such men as Elsner, Harris, Jacobi, Bierwirth, Vander Veer, Lambert, Fowler, Syms, Van Fleet, and Townsend will in the slightest degree abuse the power committed into their hands? Let all power be given to the committee of the Medical Society of the State of New York, and let us have unity.

NEW LAWS REGULATING CHILD LABOR.

On the first of this month three important laws affecting the employment of child labor went into effect, and those who have made a special study of the subject state that, taken as a whole, the laws of the State of New York touching the matter are more satisfactory than those in operation in any other State in the Union. The limitation of a day's work to eight hours in the State of Illinois is better from the hygienic point of view than the time limit imposed in the New York law, nine hours a day, but there are many other features in the New York laws affecting the employment of child labor which are distinct improvements over the laws in force in Illinois. Under the new law there is no change in the age limit, but the most important feature probably is the requirement that the parent or guardian furnish some real evidence that the child has reached the required age of fourteen years. This evidence is to take the form either of a birth or baptismal certificate or some other authoritative record, or possibly a passport in case the child is of foreign birth. Under the laws hitherto in force the mere affidavit of a parent was sufficient evidence as to age, and this provision of the law has served merely as an incentive to perjury. The law has also been extended to apply to children employed in business offices, restaurants, hotels, and apartment houses, and to messenger boys, who have heretofore not been included in the operations of the age limit law.

The enforcement of the new laws is lodged in the hands of the board of health, and the secretary of the board promises that every effort will be made to see that the inspections are carefully and efficiently carried out, though to do this thoroughly will require an additional force of inspectors, the payment of whom is not as yet provided for. The proper enforcement of the laws will require, however, not only the utmost efforts of the paid inspectors, but also the active and hearty cooperation of the public and perhaps especially of the medical profession. Physicians will undoubtedly welcome the enforcement of their teaching by this new law, and will do their best to enlighten parents as to the reasons for restricting the hours of work in the case of young children and for fixing an age below which it is unlawful for children to be employed in work requiring manual exertion or entailing responsi-

bility. Particularly do we approve of that feature of the new laws which expands their operation to the extent of protecting working children engaged in other establishments than those devoted to the manufacturing and selling of goods. If we are to remain a sturdy people, every possible safeguard must be afforded our children, both as to soundness of body and as to normal development of mind and conscience.

CONVERGENT STRABISMUS.

An ophthalmic surgeon should no longer be satisfied with cosmetic results when called upon to treat a case of "cross eye." It is true that in a good many cases the vision of one eye is so poor and can be improved so little that nothing else is attainable, but in many other cases the vision of each eye separately is, or can be made, pretty good, and then the problem before the operator is that of how to enable the two eyes to work together harmoniously. When this is secured the cosmetic result will take care of itself, will be perfect and permanent. Hence the careful preliminary correction of refractive errors, the use of stereoscopes, fusion tubes, and similar mechanical appliances to train the eyes to fuse the images formed on the retina of each, as well as the attempts to develop amblyopic eyes by occlusion of the better eye for certain periods during the day. The surgeon has a complex problem to solve in order to ascertain what course is the best to pursue in any particular case of convergent strabismus. He has to deal with a combination of possible causes, the relative importance of each varying in different cases, such as inability of the two eyes to work together, bad vision of one eye, refractive errors of one or both eyes, congenital abnormality of one or more muscles or of the nerves which supply them, paralysis or paresis of the muscles from pathological causes, spasmodic contracture of the internal recti, and insufficiency of the external recti.

In a certain proportion of the cases the ætiological importance of the refractive errors present is so great that if glasses which correct them are constantly worn, the secondary spasm of the internal recti will be relieved, each eye will be given useful vision and be enabled to work coordinately with the other, while the other possible factors will be shown to be absent or of minor importance. In

these cases a perfect and permanent cure of the strabismus may be effected by the constant use of the right glasses properly adjusted. But this is not the rule. It is rather the exception. The glasses may or may not improve the vision of the poorer, or amblyopic, eye without affecting, or at least over-coming, the other ætiological factors. Sometimes the degree of strabismus can be seen to be lessened by constantly keeping up the correction of the refractive error, although the deformity is not removed; sometimes no appreciable effect is produced. Then the surgeon has to decide whether the preeminent fault is a congenital malformation, a pathological paralysis, a contracture of the internal recti, or an insufficiency of the external recti, and on his decision will depend, not only whether an operation is needed or not, but also the sort of operation which should be performed when there is no paralysis or congenital abnormality. Tenotomy of the internal recti is not everywhere looked upon with as much favor as formerly as a routine operation to correct this deformity. Fairly good immediate cosmetic results may be obtained from tenotomy, whether combined with preliminary stretching of the muscles or not. Occasionally binocular single vision is obtained after this operation, but sometimes it is associated with a weakness of the converging power which renders the combined use of the eyes for near work difficult if not painful. Yet it is sometimes the proper operation. If contracture of the internal recti is the main cause of the strabismus, the indication is to weaken those muscles, but if insufficiency of the external recti plays the important part, the indication is to strengthen them by an advancement or some allied procedure. Here is where the diagnostic acumen of the surgeon is tested, and the best results are most likely to be obtained by the one who has no favorite operation to praise, but is guided in his selection by the careful study of each case.

MATTHIAS LANCKTON FOSTER.

IMITATION MONSTERS.

Batueff describes, in *Roussky Vrach* for July 19th (see abstract page 722) a fictitious monster resembling a calf with a human head. Such evidences of Japanese ingenuity are by no means rare. We once had in our possession a photograph (half size) of a "mermaid," which had been

made by a very careful articulation of a human foetal head to the vertebra of a fish. Judging from the photograph, which was a particularly sharp and good one, it would have required very close inspection of the specimen to detect the fraud.

THE ROMANCE AND HISTORY OF MEDICINE.

We always welcome stories touching on medicine, particularly if they are well told. Doubtless literary skill may be looked for in *The Doctor's Recreation Series*, in twelve volumes, announced by Dr. S. W. Kelley, of Cleveland. The editor in chief is Dr. Charles Wells Moulton, of Buffalo. The series is to include a republication of Warren's *Passages from the Diary of a Late Physician*, but we presume that the eleven other volumes will be original.

SCHOOL HYGIENE CONGRESSES.

Apparently we are living in a period of scientific congresses. The one last projected, so far as we are aware, is a congress of school hygiene, the first assembling of which is to be in Nuremberg in April, 1904. The Americans included in the permanent international committee are President Butler, of Columbia University, Dr. John A. Bergström, of the Indiana University, and Dr. W. T. Porter, of the Harvard Medical School. We as a people are accounted sad, and perhaps this accounts for the fact that there is no American on the "festive publication committee."

THE HOLY HORROR OF LABOR.

We are far from wishing to add to the already cumbrous nomenclature of medicine, but it seems to us that a word is necessary to characterize one of the most prevalent symptoms of modern civilization. We offer *ergophobia* as a concise and elegant summary of an affliction that most employers of men will recognize as epidemic. The symptom seems to exist *per se*, although not infrequently associated with both bulimia and oinomania. The German *Weltschmerz* is too dignified a name for the condition, which will respond only to the most urgent stimulation, applied from early childhood. It is not infrequently noticed in persons conscious of the possession of altruistic minds and noble motives, whose energy is entirely taken up with the evolution of beautiful thoughts, and who, with innate refinement, shrink from contact with the crass and unlovely workaday world.

News Items.

Society Meetings for the Coming Week:

MONDAY, October 12th.—New York Academy of Medicine (Section in General Surgery); New York Academy of Sciences (Section in Chemistry and Technology); New York Medico-Historical Society (private); New York Ophthalmological Society (private); Gynecological Society of Boston; Burlington, Vt., Medical and Surgical Club; Norwalk, Conn., Medical Society (private); Medical Association of the Greater City of New York; Society of Medical Jurisprudence.

TUESDAY, October 13th.—New York Academy of Medicine (Section in Genitourinary Surgery); New York Medical Union (private); New York Obstetrical Society (private); Buffalo Academy of Medicine (Section in Medicine); Kings County, N. Y., Medical Association; Rome, N. Y., Medical Society; Medical Society of the County of Rennselaer, N. Y.; Newark, N. J., Medical Association (private); Trenton, N. J., Medical Association; Clinical Society of the Elizabeth, N. J., General Hospital and Dispensary; Northwestern Medical Society of Philadelphia; Practitioners' Club, Richmond, Ky.; Richmond, Va., Academy of Medicine and Surgery.

WEDNESDAY, October 14th.—New York Pathological Society; New York Surgical Society; American Microscopical Society of the City of New York; Society of the Alumni of the City (Charity) Hospital; Society for Medical Progress, New York; Pittsfield, Mass., Medical Association (private); Philadelphia County Medical Society; Lenox Medical and Surgical Society (private).

THURSDAY, October 15th.—New York Academy of Medicine; Brooklyn Surgical Society; New Bedford, Mass., Society for Medical Improvement (private); Medical Society of City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

FRIDAY, October 16th.—New York Academy of Medicine (Section in Orthopaedic Surgery); Clinical Society of the New York Postgraduate Medical School and Hospital; Baltimore Clinical Society; Chicago Gynecological Society (Annual); Manhattan Medical and Surgical Society (private).

Change of Address.—Dr. J. C. Applegate, to 3540 North Broad Street, Philadelphia. Dr. Applegate has recently been elected obstetrician to the Samaritan Hospital, of Philadelphia.

NEW YORK, CITY AND STATE.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending October 3, 1903:

DISEASES.	Week end'g Sept. 26.		Week end'g Oct. 3.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles.....	69	5	69	2
Diphtheria and croup.....	249	30	284	22
Scarlet fever.....	68	4	85	3
Smallpox.....	0	0	0	0
Chickenpox.....	23	0	15	0
Tuberculosis.....	264	139	279	150
Typhoid fever.....	118	12	89	15
Cerebrospinal meningitis.....	0	5	0	2
Totals.....	791	195	821	203

Roosevelt Hospital, New York City, has a new staff room, a one story building of brick and plastic slate on the south side of Fifty-ninth Street, just off the main building. Its cost was \$4,500.

The Riverside Accident Hospital, of Buffalo, moved on September 27th into its new quarters at 118 Swan Street. The house is a three story brick building, completely fitted for the purpose. A nearby stable has been altered to fit it for an ambulance house.

A Translation of Dr. B. Sach's Treatise on the nervous diseases of children has appeared in Italy; it is the work of Dr. Luigi Colombo.

A Chinese Hospital in New York.—A Chinese hospital, the second of its kind in the United States, has been established on Park Street, on the fringe of Chinatown. Patients, physicians, and nurses are all Chinese, and the institution attracts patients from all the States east of the Mississippi River.

Work on the New Bellevue Hospital is to be begun at once. On the 5th instant the aldermen sanctioned the closing of Twenty-eighth Street so that the condemned block to the north may be immediately demolished. It is confidently expected that the War Department will approve of the project to extend the pier bulkhead 200 feet into the East River, which would give the new structure a river frontage of over 700 feet.

Trachoma in the Shops.—A series of inspections has been organized by the board of health of children of school age employed in the department stores and other shops. These children are particularly liable to trachoma and other contagious diseases from their handling of large numbers of packages and from the fact that at their homes they come in contact with school children. Several of the managers of stores have already set apart certain hours for the examination to facilitate the work of the inspectors. It is said that the number of trachoma cases is decreasing.

Kings County Hospital's Quarterly Report.—John F. Fitzgerald, general medical superintendent of the Kings County Hospital, reports to Charities Commissioner Homer Folks that during the quarter ending June 30th there were 2,455 patients under treatment. Of these, 851 were discharged recovered, 636 were improved, and 44 unimproved; 199 were transferred to the State hospitals for the insane, 195 died, and 530 remained in the hospital. In the dispensary 1,276 cases were treated. The expenditures in the hospital for the quarter were \$43,543.41, in the dispensary they were only \$54.34, which sum represented the cost of drugs.

Medical Society of the State of New York.—A fall meeting of the society will be held at Hosack Hall, New York Academy of Medicine, 17 West Forty-third Street, on October 13 and 14, 1903. The beginning of the morning sessions will be devoted to miscellaneous subjects. The first afternoon session will be given to a symposium on the Röntgen ray. The second afternoon session to a symposium on typhoid fever. Members of the society and profession are cordially invited to attend. Following is the programme: Hepatic Drainage, by Dr. J. B. Deaver, of Philadelphia, Pa.; The Treatment of Certain Classes of the Underfed, by Dr. W. E. Ely, of Rochester, N. Y.; Faculties of the Mind Not Understood and Not Used with Special Reference to the Curability of Epilepsy, by Dr. M. A. Veeder, of Lyons, N. Y.; Evolution as Affecting Morbid Processes, by Dr. M. A. Booth, of Elmira, N. Y.; Vaccination and the Law, by Dr. Nelson G. Richmond, of Fredonia, N. Y.; The Internal Secretions, by Dr. Glentworth R. But-

ler, of Brooklyn, N. Y.; Otitic Serous Meningitis; Lumbar Puncture; Recovery, by Dr. Francis Huber, of New York; The Therapeutic Uses of the Röntgen Ray, by Dr. A. D. Bevan, of Chicago, Ill.; The Diagnostic Value of the Röntgen Ray, by Dr. C. L. Leonard, of Philadelphia, Pa.; Further Observations Upon the Treatment of Sarcoma with the Röntgen Ray, by Dr. W. B. Coley, of New York; A Description of the Present Status of the New York Hospital for the Treatment of Incipient Tuberculosis, by Dr. Willis G. Macdonald, of Albany, N. Y.; Potable Waters, by Dr. E. S. Willard, of Watertown, N. Y.; Conservation in Pelvic Infections, by Dr. John O. Polak, of Brooklyn, N. Y.; The Question of the Relation Between Human and Bovine Tuberculosis, by Dr. D. Bovaird, of New York; Dosage, by Dr. A. Jacobi, of New York; The Dispensary Treatment of Tuberculosis, by Dr. J. W. Brannan, of New York; The Causes and Prevention of Infant Mortality in Nurseries and Asylums, by Dr. E. H. Bartley, of Brooklyn, N. Y.; The Surgery of Tumors of the Spinal Cord, by Dr. Geo. Woolsey, of New York; A Rational Definition of Typhoid Fever, by Dr. H. A. Fairbairn, of Brooklyn, N. Y.; Anomalies and Difficulties of Diagnosis in Typhoid Fever, by Dr. H. E. Elsner, of Syracuse, N. Y.; The Management and Treatment of Typhoid Fever, by Dr. Egbert LeFevre, of New York; The Ithaca Epidemic, by Dr. L. Coville, of Ithaca, N. Y., and Geo. A. Soper, of Ithaca, N. Y. President, A. T. Bristow; secretary, F. C. Curtis.

PHILADELPHIA AND PENNSYLVANIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

DISEASES.	Week end'g Sept. 26.		Week end'g Oct. 3.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	18	1	2	5
Diphtheria	64	12	60	8
Scarlet fever	51	1	70	0
Typhoid fever	81	8	76	7
Consumption	0	53	0	57
Cerebrospinal fever	0	0		

This table shows a decrease of two in the total of cases of contagious diseases as compared with the preceding week.

The Death of Dr. Clarence A. Bowers took place by drowning on September 30th, in the canal at Bayonne, N. J. He was well known in Philadelphia in social and athletic circles. He graduated at the Jefferson Medical College, and subsequently took a post graduate course in the Medico-Chirurgical Medical School.

Dedication Exercises at Samaritan Hospital.—On October 3rd the new buildings of the Samaritan Hospital, recently completed, were formally dedicated by the Rev. Russell H. Conwell, the founder and president of the institution. The building, known as the "State Building," is supported by a State appropriation. One of the rooms, dedicated, is known as the "Mrs. Rose M. Bonnet memorial," in memory of this lady, who died at sea last summer, and who was a member of the Ladies' Samaritan Club, of Tioga, an organization which is enthusiastic in its support of this institution. The amphitheatre in the operating room has a large seating capacity for students. The increasing amount of surgical clinical material is being extensively utilized by Professor Edwin W. Holmes, who conducts these clinics.

Less Typhoid Fever and Smallpox.—There was quite a decrease in typhoid cases in Philadelphia during the week ending October 3rd. This applies also to the Manayunk and Roxborough districts, where the number of cases was the largest. Smallpox also decreased considerably, as well as the total number of deaths.

Successful Amputation with Spinal Cocainization.—On September 30th Dr. Charles F. Nassau, surgeon to St. Joseph's Hospital, Philadelphia, assisted by Dr. M. Herrman, performed an amputation of the leg, with spinal cocainization. The case was one of diabetic gangrene. The solution consisted of two thirds of a grain of cocaine to the drachm of sterile water. Noteworthy features were the absence of pain or shock, and at the present time the stump is healing nicely.

Dedicatory Services at Jewish Hospital.—On October 4th, exercises were held in a tent, formally to dedicate the hospital buildings for private patients, presented by Meyer Guggenheim, of New York city, as well as the Loeb Building and Eisner Home for Nurses. The cost of the structures aggregates almost \$150,000. The address accepting the buildings was made by Judge Mayer Sulzberger.

The Cumberland Valley Medical Association.—The physicians of Cumberland Valley, including Cumberland and Franklin counties in Pennsylvania, and Washington County, in Maryland, met at Mont Alto, Pennsylvania, on September 8th, and organized the Cumberland Valley Medical Association. The membership is limited to members of the county medical societies of the territory involved, which includes the Cumberland Valley lying between the Susquehanna and Potomac rivers. The following officers were elected: President, Dr. Robert W. Ramsay; first vice-president, Dr. James Evelyn Pilcher; second vice-president, Dr. T. H. Weagley; third vice-president, Dr. J. W. Humrichouse; secretary, Dr. J. J. Coffman; assistant secretaries, Dr. A. R. Allen, Dr. P. B. Montgomery, and Dr. C. R. Miller; treasurer, Dr. J. H. Montgomery.

American Electro-Therapeutic Association.—The American Electro-Therapeutic Association, under the presidency of Daniel Roberts Brower, M. D., LL. D., of Chicago, held its thirteenth annual convention at the Hotel Windsor, Atlantic City, on September 22d, 23d, and 24th. After the calling of the meeting to order by the President, and the transaction of current business matters, the scientific programme was carried through. The reports of the standing committees embraced the following: On Induction Coils and Alternators, by Margaret Abigail Cleaves, Chairman; On Electric Light Apparatus for Diagnosis and Therapy, and the Röntgen Ray, by William Scheppegegrell, Chairman; On Electrodes, by R. G. Brown, Chairman; On Meters, by Robert Reyburn, Chairman; On Cataphoresis, by Fred Harris Morse, Chairman; On Static Machines and Condensers, by William Benham Snow, Chairman; On Constant Current Generators, and Controllers, by William James Herdman, Chairman;

On Current Classifications and Nomenclature, by William Johnson Jenks, Chairman; On St. Louis Exposition in 1904, by William Benham Snow, Chairman. An exhibition drill of the crew at the life saving station was arranged for the benefit of the visiting members, who also visited the United States Signal Station. A reception was also given to the Medical Profession of Atlantic county, and the Academy of Medicine, of Atlantic City, to the members of the association and guests, at the Marine Room, Hotel Windsor.

GENERAL

Typhoid Fever in Denver, Colo.—It is reported that over 300 cases of typhoid fever have occurred in Denver owing to carelessness in the use of the city water supply.

A Record in Ocean Voyages.—Dr. Brice, at present attached to the *Germanic*, has crossed the ocean 804 times and hopes to reach a total of 900 voyages, although he is now in his seventy-eighth year.

The Waterbury (Conn.) Hospital has been made a beneficiary to the amount of \$5,000 by the will of the late Bronson B. Tuttle, of Naugatuck, a suburb of Waterbury.

The Navy Medical School will open its second session in Washington on the 1st with twenty-six students in the class. Surgeon C. F. Stokes has replaced Surgeon A. C. H. Russell in the department of military surgery, the latter having been ordered to the South Atlantic squadron.

The Conference of State and Provincial Boards of Health of North America will hold its next meeting in Baltimore, October 23 and 24, 1903, with headquarters at the Stafford. The American Public Health Association meets the following week. Dr. Gardner T. Swarts is secretary of the conference.

The Georgetown University Hospital will be formally opened on Thanksgiving Day. The interior finishing is said to be especially handsome in the new building, to which the offices and operating room are to be removed. The new structure contains eight wards and twenty-four rooms and private wards, and cost in the neighborhood of \$30,000.

Denver and Gross Medical College.—On the ninth instant the executive committee of this institution announced that they had secured lease on the portion of the Denver University known as the Art building, for a term of years. The building will be remodeled and fitted for chemical, physical, and physiological investigations. The apparatus to be used has been purchased and is on its way from Europe.

Washington, D. C., Medical Inspectors.—The following white physicians have been appointed medical inspectors of schools in Washington: Francis P. Morgan, Wilfred M. Barton, John B. Nichols, John B. Thomas, and Wallace Johnson. The compensation is \$500 per annum. The following have been appointed as physicians to the poor: W. Given Suter, James Stuart, John P. Gunion, and Richard S. Blackburn.

"Apple-on-a-Stick" Murderous.—A health inspector of Jersey City has reported to the Mayor that a large percentages of the cases of infantile dysentery and diarrhoea in that city are due to a preparation, known as "apple-on-a-stick," made by surrounding a green apple with sugar, and has recommended that the sale of the deleterious article be prohibited.

The Trained Nurses of Minnesota are forming a State organization to secure the passage of a law requiring the registration after examination of any one desiring to practise their profession. The question was discussed at the recent meeting of the Ramsey County Association, which then elected the following officers: President, Mary Woods; vice-president, Maud Worthington; secretary, Helen Swanson; treasurer, Grace Holmes.

The Tri-State Medical Association, drawing its membership from Texas, Oklahoma, and Indian Territory, held its fourth annual meeting in Dallas, Tex., on September 30th. The officers are: President, Dr. J. C. Loggins, of Ennis, Tex.; vice-presidents, Dr. R. J. Grobill, of McAlester, I. T., Dr. J. B. Rolater, of Oklahoma City, and Dr. Frank Parchal, of Dallas, Tex.; secretary and treasurer, Dr. C. M. Rosser, of Dallas.

The Katherine Hallett Memorial Home for Nurses, the gift to the city of Denver, Colo., of Judge Moses Hallett in memory of his wife, is nearing completion. It will have cost over \$30,000. The building occupies three lots on Pennsylvania Avenue, is two stories in height, and built of red pressed brick and terra cotta. It will serve as a home not only for the nurses of St. Luke's Hospital, but also for the graduates who are engaged on private cases.

Pulte Medical College.—The trustees of Pulte Medical College, of Cincinnati, O., have come into control of a bequest of \$25,000 by the will of the late well-known philanthropist, Caroline Hooper. According to the terms of the will, the money is to be devoted to the maintenance of the children's clinical department of a medical dispensary, but should the latter cease to exist, the children's department will continue to enjoy the endowment.

Trouble About Vaccination in Indianapolis.—The city health board of Indianapolis, Ind., sought to save money a while ago by employing the senior students of the local medical school as public vaccinators. The vaccinating of the young women in the high school fell to the lot of the young men, but the patients objected to having their arms scarred. The students obligingly offered to vaccinate elsewhere, but the girls routed them, scornfully demanding that men of mature mien and experience should be appointed by the health board.

Howard University, Washington, D. C., began its thirty-sixth annual session on the first instant, the new President, Rev. John Gordon, D. D., making the opening address. Dr. Robert Reyburn, dean of the medical faculty, presided. Professor Charles B. Purvis, M. D., vice dean of the medi-

cal faculty, made a brief address, and Professor T. J. Shadd, secretary and treasurer, made the usual announcements for the coming term. Other members of the faculty present were: D. S. Lamb, W. H. Seaman, N. F. Graham, J. M. Lau, G. N. Perry, S. R. Watts, Kelly Miller, E. A. Ballock, William A. Warfield, C. H. Howland, H. P. Davis, A. J. Brown, M. Lyon, Jr., A. M. Curtis, Dr. H. C. Sourlock, Dr. M. O. Dumas, and Dr. A. L. Cogley.

The Vermont State Medical Society will hold its ninetieth annual meeting at Bellows Falls, October 15th and 16th, the headquarters being at the Hotel Windham and the place of meeting Hibernian Hall. The following papers will be read: Nephritis, by Deane Richmond, of Windsor; Prolapse of the Uterus, by S. G. Start, of Cambridge; Ileocolitis in Infants in the Light of Recent Investigation, by Thomas Morgan Rotch, of Boston; Diagnosis of Abdominal Tumors, by H. L. Crowell, of Kansas City; Early Operation in Abdominal Troubles, by E. M. Pond, of Rutland; Report of the Tuberculosis Commission, by Don D. Grout, of Waterbury; Treatment of Effusions of the Chest and Their Consequences, by William Wotkyns Seymour, of Troy, N. Y.; Symposium on Pneumonia, (a) *Ætiology and Pathology*, by F. C. Phelps, of Vergennes; (b) *Clinical History and Diagnosis*, by O. C. Baker, of Brandon; (c) *Complications and Sequelæ*, by C. W. Locke, of Springfield; (d) *Treatment*, by A. C. Bailey, of Randolph; Intracranial Fibrosarcoma, or Psammoma, by W. D. Berry, of Waterbury; Essay, by J. E. Hartshorne, of St. Johnsbury; The Temperature as a Guide to the Existence of Suppuration, by Lyman Allen, of Burlington. The following are the officers of the society: President, E. M. Pond, of Rutland; vice-president, Deane Richmond, of Windsor; secretary, Geo. H. Gorham, of Bellows Falls; treasurer, B. H. Stone, of Burlington; auditor, J. H. Blodgett, of Saxtons River.

The Mississippi Valley Medical Association held its twenty-ninth annual meeting at the Gayoso Hotel, Memphis, Tenn., on the 7th, 8th, and 9th of this month, the following programme being offered: The Importance of Medical Organization in Securing and Enforcing Medical Laws, by T. J. Happel, of Trenton, Tenn.; Medical Organization, by J. N. McCormack, of Bowling Green, Ky.; Medical Legislation Governing Practice, by George Stemen, of Denver, Colo.; Specialism in Its Modern Significance, by Albert B. Hale, of Chicago, Ill.; Acne Vulgaris, Its Successful Management and Therapy, by M. L. Heidingsfeld, of Cincinnati, O.; Digitalis, by W. Francis Waugh, of Chicago, Ill.; The Local Lesions and Treatment of Amoebic Dysentery, by J. P. Tuttle, of New York; What a General Practitioner Should Do in the Early Stages of Mental Disease, by Brooks F. Beebe, of Cincinnati, O.; The Early Diagnosis of Mental Disease, by C. B. Burr, of Flint, Mich.; Masked Forms of Epilepsy, by W. B. Fletcher, of Indianapolis, Ind.; Paresis, by Hugh M. Lash, of Indianapolis, Ind.; Infantile Paralysis: Its Nature and Treatment, by Albert E. Sterne, of Indianapolis, Ind.; Tendon Transplantation in the Treatment of Infantile Spinal Paralysis, by Alex. C.

Wiener, of Chicago, Ill.; Discussion of the Neurological Aspect of Dr. Wiener's Paper, by Harold N. Moyer, of Chicago, Ill.; Medical Malingerer and Its Detection with the Report of a Case, by John Punton, of Kansas City, Mo.; Neurasthenia, by Wm. Charles White, of Indianapolis, Ind.; The Therapeutic Value of Heat and Cold Applied to the Spinal Cord, by W. Frank Glenn, of Nashville, Tenn.; Some Recent Investigations Upon the Action and Therapeutic Value of Currents of High Potential and Frequency, by Curran Pope, of Louisville, Ky.; Auto-Intoxications Seen in General Practice, by T. D. Crothers, of Hartford, Ct.; Leucæmia; Exhibition of Patient, by Wm. Britt Burns, of Memphis, Tenn.; The Continued Fevers of the South, by Wm. A. Evans, of Chicago, Ill.; The Hypodermic Use of Mercury in Syphilis, by S. P. Collings, of Hot Springs, Ark.; How to Care for the Mouths of Syphilitics, by C. Travis Drennen, of Hot Springs, Ark.; Syphilitic Manifestations in the Nose and Pharynx, by Paul Turner Vaughan, of Hot Springs, Ark.; Eclampsia, by Louis Burckhardt, of Indianapolis, Ind.; Summary of Recent Investigations by the Author into the Cause and Treatment of Diabetes, by A. C. Crofton, of Chicago, Ill.; The Treatment of Puerperal Infection, by J. Clarence Webster, of Chicago, Ill.; Treatment of Typhoid Fever with Castor Oil, by C. C. Bass, of Columbia, Miss.; Neuroses of the Stomach and Intestines, by Frank P. Norbury, of Jacksonville, Ill.; Brain Strain Dyspepsia, by C. H. Hughes, of St. Louis, Mo.; Constipation: Its Causes, Significance and Treatment, by G. W. McCaskey, of Fort Wayne, Ind.; The Indications for Treatment of Dilatation of the Stomach, by Fenton B. Turck, of Chicago, Ill.; Dilatation of the Stomach, by Gustav Futterer, of Chicago, Ill.; Ætiology, Pathology, and Treatment of Cancer, by Wm. F. Barclay, of Pittsburgh, Pa.; Scarlet Fever: Its History, Symptoms, Duration, Incubation, and Variation in Type, by John M. Batten, of Dowingtown, Pa.; Twenty Years' Observation of Chronic Interstitial Nephritis, by Charles S. Bond, of Richmond, Ind.; Chronic Interstitial Nephritis, by R. A. Bate, of Louisville, Ky.; Cyclic Albuminuria, by Arthur R. Elliott, of Chicago, Ill.; The Use and Abuse of Fresh Air and Over Feeding in Tuberculosis, by W. H. Prioleau, of Asheville, N. C.; The Question of Tuberculosis in General Practice, by Paul Paquin, of Asheville, N. C.; State Control of Tuberculosis, by John M. Hurty, of Indianapolis, Ind.; Uterine Hæmorrhage Following Abortion, by Lee A. Stone, of Louisville, Ky.; Why the General Practitioner Should Understand the Technics of Mirror Sight, by Allen De Vilbiss, of Toledo, O.; The Relation of Ophthalmologists and Otologists to the General Hospital, by Frank Allport, of Chicago, Ill.; Intraocular Sarcoma, by A. G. Sinclair, of Memphis, Tenn.; Acute Otitis Media: Causes, Symptoms and Treatment, Medical and Surgical, by Geo. Knapp, of Vincennes, Ind.; The Treatment of Chronic Otitis Media, by J. F. Barnhill, of Indianapolis, Ind.; Some Surgery of the Ethmoid and Sphenoid Cells, by A. D. Murphey, of Cincinnati, O.; Nasopharyngeal Adenoids, by J. A. Stucky, of Lexington, Ky.; Cancer of the Cervix: Its Prophylaxis and Treatment, by Floyd W. McRae, of Atlanta, Ga.; The Perfected Surgical Treat-

ment of Fibroid Tumors of the Uterus, by L. S. McMurtry, of Louisville, Ky.; A New Treatment of Dysmenorrhœa, by Emil Ries, of Chicago, Ill.; Backward Displacements of the Uterus, by Matthew C. McGannon, of Nashville, Tenn.; Conditions in Female Patients Simulating Appendicitis, by R. Stansbury Sutton, of Pittsburgh, Pa.; Inflammatory Pelvic Diseases of Women, by F. Henrotin, of Chicago, Ill.; Tuberculosis of the Female Genitalia and Peritonæum, by J. B. Murphy, of Chicago, Ill.; The Value of Referred Pain in the Diagnosis of Surgical Diseases of the Abdomen, by Geo. W. Crile, of Cleveland, O.; Typhoid Perforation, Diagnosis, and Treatment, by Louis Frank, of Louisville, Ky.; Extrauterine Pregnancy, Diagnosis, and Treatment, by A. H. Cordier, of Kansas City, Mo.; Ectopic Gestation, Report of a Case with Complications, by Anderson Watkins, of Little Rock, Ark.; The Surgery of Pulmonary Gangrene, by L. L. McArthur, of Chicago, Ill.; Sublamine as an Antiseptic for the Hands, by A. Goldspohn, of Chicago, Ill.; Surgery of the Thyreoid Illustrated by 100 Stereopticon Slides, with Report of Cases, by B. Merrill Ricketts, of Cincinnati, O.; The Causes for the Occasional Failure of Operation to Cure Gallstone Disease, by Wm. J. Mayo, of Rochester, Minn.; The Diagnosis and Operation for Gallstones, by W. D. Haggard, of Nashville, Tenn.; Prophylaxis of Tetanus, by S. C. Stanton, of Chicago, Ill.; Indications and Technics of Prostatectomy, by G. Frank Lydston, of Chicago, Ill.; Use of the Catheter in Prostatic Hypertrophy, by W. N. Wishard, of Indianapolis, Ind.; Varicose Ulcers of the Leg, by Robert Corothers, of Cincinnati, O.; The Pathology and Treatment of Gangrene in the Lower Extremities, by H. J. Whitacre, of Cincinnati, O.; Accidents of Railway Surgery, by Francis D. Kendall, of Columbia, S. C.; Some Everyday Surgery, by Alex. R. Craig, of Columbus, O.; The Present Status of Stomach Surgery, by A. J. Ochsner, of Chicago, Ill.; The Treatment of Benign Stomach Lesions by Surgical Interference, with Report of Five Cases, by A. C. Bernays, of St. Louis, Mo.; Diverticula of the Œsophagus, by A. E. Halstead, of Chicago, Ill.; The Significance of Paralysis of the Bowel and Its Management, by G. S. Brown, of Birmingham, Ala.; Penetrating and Perforating Gunshot and Stab Wounds of the Abdomen, by John Young Brown, of St. Louis, Mo.; Changes in the Gullet Wall Following the Destructive Action of Escharotics, by Joseph Rilus Eastman, of Indianapolis, Ind.; Tuberculous Joints and Their Treatment, by D. C. Peyton, of Jeffersonville, Ind.; The Röntgen Rays in the Treatment of Tuberculosis of the Joints, by J. Rudis-Jicinsky, of Grand Rapids, Ia.; The Treatment of Compound Fractures, Immediate and Remote, by Frederick A. Besley, of Chicago, Ill.; The X Ray in Fractures, by Duncan Eve, of Nashville, Tenn.; How Far Shall We Rely on X Rays in Carcinoma of the Breast? by Wm. Allen Pusey, of Chicago, Ill.; X Ray Burns: Cause, Prevention, and Treatment, by M. O. Shivers, of Greenville, Miss.; Presentation of an Operative Cystoscope, with Report of Cases, by Bransford Lewis, of St. Louis, Mo.; Fractures of the Spine, by Carl E. Black, of Jacksonville, Ill.; Pathologic Migration of Vertebrae, by H. R. Allen, of Indianapolis, Ind.; Drainage in Surgery, by J. Lively Johnson, of Louisville, Ky.

Pith of Current Literature.

BRITISH MEDICAL JOURNAL.

September 19, 1903.

(Seventy-first Annual Meeting of the British Medical Association.)

Section of Tropical Medicine.

1. A Discussion on Disposal of Excreta in the Tropics,
By W. J. SIMPSON, A. DUNCAN, and Others.
2. Sprue: Primary and Secondary, with Special Reference
to the Blood Changes Found, with Illustrative Cases,
By P. W. BASSETT-SMITH.
3. Malaria: the Mode of Entry of the Spore Into the Red
Corpuscle, By C. CHRISTY.
4. Discussion on Trypanosomiasis,
By SIR P. MANSON, C. CHRISTY, and Others.
5. Five Cases of Abscess of the Liver,
By P. W. BASSETT-SMITH.
6. Liver Abscess, with Ten Cases, By J. CANTLIE.
7. The Pathology of Acute Rheumatism and Allied Condi-
tions. Progress Report on Chemical Pathology,
By E. W. A. WALKER, and J. H. RYFFEL.

1. **Sewage in the Tropics.**—Simpson thinks that the only practical method of final disposal or treatment of excreta in the tropics, is application to the land. Although he is in favor of excreta being somewhat prepared for the land according to the Chinese method or the septic tank system, by which the putrefactive organisms get full play and at the same time have every opportunity of destroying disease germs, yet under most circumstances the application of fresh excreta to land can be carried out without the slightest danger of spreading disease, provided certain precautions are taken.

Duncan recommends the burial of excreta according to the method advocated by Vivian Poore.

Rogers reports the results of his observations as to the effect on pathogenic bacteria of the septic tank process of disposal of excreta. He finds that it is inimical to most of the pathogenic organisms with the exception of the anthrax bacillus. On the other hand, even small quantities of the effluent from the tanks showed both the *Bacillus enteritidis sporogenes* and streptococci, so that it cannot be considered as by any means free from pathogenic bacilli, while its subsequent passage through a filter bed, and then over a small piece of land with subsoil drainage, failed to free it from these organisms and from large numbers of colon bacilli, although the total number of bacilli were much reduced by these means, so that even after such treatment it would not be safe to discharge it in any place within reach of any water which might possibly be used for drinking purposes.

2. **Sprue.**—Bassett-Smith states that the cardinal points in coming to a diagnosis of sprue are: (1) Irregular and chronic diarrhœa, with dyspepsia, causing flatulent distention of the belly and the occurrence of fermenting offensive stools, which in chronic cases become pasty, clay-colored, and very abundant; (2) progressive emaciation; (3) extreme secondary anæmia; (4) changes in the buccal mucous membrane, with or without the production of an aphthous condition; and (5) *post mortem*, a thinning of the gut, with destruc-

tion of the mucous membrane and its absorbent glands. Two forms of the disease are generally distinguished: (1) Primary, where the symptoms are insidious, commencing as ordinary diarrhœa; and (2) secondary, following after a dysenteric attack, the dysenteric processes having subsided. The author reports two cases, illustrative of each class. He calls special attention to the marked anæmia, the red corpuscles being reduced to 1,000,000 per c. mm. There is a well-marked reduction in the number of the leucocytes also. Poikilocytosis and schizocytosis are present, and should recovery take place normoblasts appear in the blood. One of his cases proved fatal—in the other a slow recovery ensued under the use of a liberal diet, iron and arsenic, bone marrow, and ox gall.

3. **Malarial Parasite.**—Christy's observations show that when the full grown malarial sporocyte ruptures, the spores almost immediately attach themselves to the rim of the nearest red corpuscle. Having once become attached, either by a pseudopodium or by some power of adhesiveness, the cytoplasm, or working part of the amœbula, elongates and spreads itself out by means of its protoplasmic power of movement, along the rim of the corpuscle. The cytoplasm then sinks a little into the red corpuscle, leaving the nucleus and nucleolus protruding conspicuously. Pseudopodia or minute processes are then thrown out into the corpuscle, the rest of the cytoplasm, the nucleus, and nucleolus following, until the whole parasite is well within the corpuscle, leaving no appreciable gap or fault in its circumference.

4. **Trypanosomiasis.**—Manson calls attention to the important place that trypanosomiasis has already taken in tropical pathology. So far the detection of the parasite in the blood furnishes the only sure method of diagnosis, but the parasites are so hard to find, even in well-marked cases, that negative results are unreliable. Inoculation of the lower animals has so far failed to furnish any assistance. In the European an irregular undulant fever seems to be a constant feature of the disease. Other common symptoms are a peculiar circinate erythema, muscular weakness, tachycardia, chorioiditis, iritis, cyclitis, and optic neuritis. Manson does not believe that the trypanosoma of the African is the cause of sleeping sickness, but it may be causally related to kala-azar. The prognosis of trypanosomiasis is not so good for the European as for the African. All forms of treatment have so far proved unsuccessful.

Christy has studied the occurrence of sleeping sickness on the Victoria Nyanza. He finds that the local distribution of the disease corresponds curiously with that of the tsetse fly. The fly avoids villages or towns, and it is a remarkable coincidence that almost all cases of sleeping sickness occur in the open country. He therefore suggests that some species of tsetse, probably *Trypanosoma Castellani*, is the carrier of the causative agent of sleeping sickness.

Dutton and Todd report their researches on trypanosomiasis in West Africa. Besides man, the horse is the only animal in which they found pathogenic trypanosomes and the infection is se-

vere and often fatal. There was a distinct difference in the disease produced in animals inoculated with the horse and man trypanosomes, the former being more severe. Otherwise the two forms of parasite differ but little.

Christy describes a definite specific affection produced by the bite of a large tick (*Ornithodoros moubata*) which is called "tick fever." The main symptoms are headache, fever, vomiting, and purging. He found filaria in the blood of one patient, and suggests that the disease is a primary infection with that organism, the tick having acted as the intermediary host.

Castellani believes sleeping sickness is due to the trypanosome because: (1) The trypanosome is almost constantly present in the cerebrospinal fluid of the patients; (2) it is never found in the cerebrospinal fluid of other diseases; and (3) the pathological changes seen in sleeping sickness are in favor of its being a trypanosoma disease.

6. Liver Abscess.—Cantlie reports the cases of abscess of the liver, operated on by him with trocar and cannula. Of these, two died—one showing postmortem that there were many small abscesses of the liver; the other two showing abscesses of which the trocar had reached only one. He maintains that in the best circumstances a deep-seated suprahepatic or intrahepatic abscess is best treated by the trocar and cannula and drainage through a large tube. Subhepatic abscesses should always be operated on by incision.

7. Micrococcus Rheumaticus.—Walker and Ryffel make a preliminary report of their studies on the micrococcus of acute rheumatism and its production of acid. They formulate the following provisional statement: (1) The *Micrococcus rheumaticus* produces formic acid in very considerable quantity, and also at least one other acid of the fatty acid series. (2) The acid (formic) is not only present in the filtered cultures of the organism, but can also be extracted from the bodies of the microorganisms themselves. The washed micrococci contain, in addition to formic acid, at least one of the higher fatty acids. (3) Ordinary streptococci, such as a streptococcus isolated from a case of erysipelas, only give rise to a small amount of formic acid. This observation may constitute a means of differentiation between the rheumatic microorganism and other members of the streptococcus group. (4) Formic acid and probably another fatty acid are present in the urine during the course of acute rheumatism in appreciable amounts. From normal urine formic acid is either altogether absent, or it occurs in traces only. (5) Under the salicylic acid treatment of rheumatism, formic acid is reduced in quantity in the urine of the patient. (6) Formic acid is obtainable from the tissues of an animal (rabbit) suffering from acute arthritis due to the inoculation of the microorganism.

LANCET.

September 19, 1903.

1. The Artificial Feeding of Infants.

By R. HUTCHISON.

2. A Case of Abscess of the Temporo-Sphenoidal Lobe Presenting Symptoms of "Amnesic Aphasia;" Operations; Recovery.

By R. L. KNAGGS.

3. Case of Aneurysm of the Aorta, with Recovery by the Introduction of Silver Wire, with a Description of Instruments Invented and Constructed by Mr. G. H. Colt, to Facilitate the Introduction of Wire into Aneurysms.

By D. POWER, and G. H. COLT.

4. A Case of Malarial Disease Following Splenic Anæmia.

By C. H. SEDGWICK.

5. A Case of Subacute Indurative Pneumonia.

By O. K. WILLIAMSON, and J. G. EMANUEL.

6. On the Occurrence and Significance of Cutaneous Hyperalgesia in Appendicitis.

By J. SHERREN.

7. Defects in the Auricular Septum.

By F. E. TYLECOTE.

8. Tuberculosis and Cancer in New Zealand.

By W. J. BARCLAY.

1. Infant Feeding.—Hutchison's conclusions are: (1) The first essential in the artificial feeding of infants is to have a definite plan upon which to go and to avoid haphazard procedures. (2) Diluted cow's milk, condensed milk, and peptonized milk may be regarded as the positive, comparative, and superlative of digestibility respectively, and should be tried in that order until the digestive power of the child is suited, due regard being paid to the details of administration. (3) Periodic weighing of the child is the only test of the success or failure of the food selected. (4) In cases in which even peptonized milk fails to give good results, great benefit often follows the administration of gray powder, even in cases in which there is no reason to suspect a syphilitic taint. (5) In spite of all care and the use of the above methods, there remains a residuum of cases in which progressive wasting persists. Many of these seem to be babies who are unable to digest the casein of cow's milk in any form. (6) In such a case one should try to procure a wet nurse for the child, and failing that, one must eliminate casein from the diet by making whey the basis of the feeding mixture. (7) The use of a patent food as the sole article of diet for a baby is rarely, if ever, necessary, so long as cow's milk can be obtained, either fresh or condensed. (8) If a child is unable to digest much cow's milk it is often worth while to try the effect of adding a little starchy food to the diet, even at an early age, for inability to digest milk appears to be sometimes accompanied by an unusual capacity for the conversion of starch.

3. Wiring of An Abdominal Aneurysm.—Power and Colt report the case of a man, aged twenty-nine years, suffering from aneurysm of the abdominal aorta, which they treated by introducing eighty inches of silver wire into the sac. An incision was made down to the most prominent part of the swelling, and Colt's new instrument introduced into the sac and the wire forced in. The patient died fifty hours after the operation. At the autopsy the aneurysm was found to be of the size and shape of an orange—the wire was irregularly coiled within the sac. Colt's instrument for the introduction of the silver wire has the following essential and valuable features: (1) It is self-contained—it carries the wire on a reel and has a small cannula, through which the wire passes. (2) It removes the wire from the reel and forces it through the cannula, and yet does not permit it to kink. (3) It prevents the

wire from injuring the sac or the surrounding tissues, and yet permits the use of considerable force. (4) It is simple in construction, easy to work, and permits of prolonged boiling. (5) It "snags" or knots and roughens the wire by means of a milling attachment—such roughening promoting coagulation. The authors also describe another instrument, devised later, consisting of cages or wisps of wire compressed into rods and capable of being introduced into the sac of an aneurysm through a cannula. Once inside they expand, filling up the sac without danger of injuring its walls, and efficiently promote coagulation. The instrument is also modified so as to permit of electrolysis. With this instrument the wire can be introduced under local anæsthesia in five seconds.

4. Splenic Anæmia and Malignant Disease.—Sedgwick reports the case of a man, aged fifty-six years, who had several attacks of hæmatemesis in July, 1902. The spleen was not enlarged at that time, but in September, 1902, it was noted to be distinctly enlarged. The patient was very anæmic (no blood count was made) and had considerable ascites. In March, 1903, he began to show signs of malignant disease—nodular enlargement of the ribs, and of the liver. Melæna set in, the lungs became affected, and the patient died in July, 1902. At the autopsy widespread malignant disease was found.

6. Cutaneous Hyperalgesia in Appendicitis.—Sherren's conclusions are as follows: (1) Cutaneous hyperalgesia is probably present at some time during all first attacks of appendicitis, except perhaps in the fulminating type, and depends upon tension within the appendix. (2) It may be absent in attacks after the first, if the first attack was of sufficient severity to destroy nerve tissue in the wall of the appendix. (3) When present in attacks subsequent to the first it often persists long after all other signs of the disease have gone, owing to the tension within the appendix being kept up by the presence of a stricture. (4) It gradually disappears during convalescence as the other signs of the disease clear up. (5) Disappearance of cutaneous hyperalgesia without improvement in the general condition of the patient is a sign of perforation of gangrene of the appendix, and should be a signal for immediate operation. (6) The presence of cutaneous hyperalgesia is no contraindication to operation. Abscesses may form and general peritonitis may develop while it is present. (7) Its absence, on the other hand, is of great importance. Absence of cutaneous hyperalgesia, the patient coming under observation early in the first attack of appendicitis, is a sign of gangrene of the appendix unless the case is obviously a mild one and the patient is rapidly getting well. (8) Cutaneous hyperalgesia is, as a rule, absent in cases of abscess of the appendix. (9) The age of the patient and the position of the appendix have no influence upon the cutaneous hyperalgesia. (10) It is occasionally of use as an aid to the diagnosis of appendicitis.

8. Tuberculosis and Cancer in New Zealand.—Barclay states that tuberculosis in New Zealand gives a death rate of only one half the English rate. This appears to be due to the relative ab-

sence in New Zealand of conditions which favor the growth and spread of this disease. The death rate of cancer in New Zealand, on the other hand, is equal to that of England. Hence it is probable that the conditions favorable to this disease are present to an equal extent in the two countries.

PRESSE MEDICALE.

September 9, 1903.

1. Grippe and Malarial Fever in Madagascar,
By FONTOYNOT.
2. Operative Conditions in the Treatment of Appendicitis,
By GAUDIN.
3. Submedian Abdominal Cœliotomy, By L. LONGUET.

1. Grippe and Malaria.—Fontoynot speaks warmly of the terrible devastation wrought by this combination in Madagascar, and advises the shipment of quinine by the thousand kilogrammes, that every inhabitant may use it as a prophylactic; the destruction of noxious weeds and herbs; filling stagnant pools, or, when this is impossible sterilizing them with petroleum; compelling the inhabitants to bury fragments of glass and crockery which might otherwise retain rain water and become nests of mosquitoes; publishing broadcast in simple language, the cause of malaria and the means to combat it; establishing depots for the sale at low price of quinine or even for its free distribution; showing the natives the advantages of warm clothing. The expense of all these methods is nothing compared to that of the present loss of valuable lives.

2. Operating in Appendicitis.—Gaudin has been studying Roux's operations and summarizes his conclusions as follows: The only excuse for hasty operation is when the diagnosis is positive and immediate, from several previous crises; one is sure to find in such a case, a perforated appendix and an abscess undergoing resorption. Such cases are as rare as extrauterine pregnancies rupturing into the peritonæum. To give the patient the best chance operation must take place without either peritonitis or pus. As, in the early operation, there is always peritonitis and soon afterwards pus, we should wait on principle; it is altogether exceptional to be able to operate so early as to anticipate the spread of the *Bacilli coli* in the peritonæum. These are Roux's rules, and his mortality is small; the late operation is no more serious than a radical cure for hernia.

3. Submedian Abdominal Cœliotomy.—Longuet considers this method, perfected by himself, as superior to the usual methods of opening the abdomen; he opens by an incision beginning an inch above the symphysis, traversing both aponeuroses of the sheath at the first cut, and finishing an inch to the left of the median line and an inch below the umbilicus. This is preferable to the common median incision, because first, it is shorter, the line being usually straighter, and second, biologically, the lines of suture have greater vitality, it leaves muscular integrity on one side of the abdominal wall, the solidity of the *linea alba* is preserved, and subsequent hernia is unlikely with a solid and healthy muscle between the planes of suture. The median operation may be preferable in wounds or other emergency, but for elaborate operations and particularly in gynæcology, Longuet prefers his method.

MUENCHENER MEDICINISCHE WOCHENSCHRIFT.

August 25, 1903.

1. Treatment of Hæmatocele, By P. ZWEIFEL.
2. "Cocainization" of the Spinal Cord Plus Adrenalin, By ALFRED DÖNITZ.
3. Specific Gravity of the Human Body, By F. JAMIN, and E. MÜLLER.
4. Sepsis and Miliary Tuberculosis, By ROBERT SCHÜTZER.
5. Acoine-Cocaine as a Local Anæsthetic, By W. KRAUSS.
6. Circumscribed Inflammatory Focus in the Temporal Bone, By C. BIEHL.
7. Giant Growth in the New-born and Partus Serotinus (Concluded), By H. FUCHS.
8. Toxines and Antitoxines (Concluded), By P. EHRLICH.

1. **Treatment of Hæmatocele.**—Zweifel remarks that in a pregnant woman a sudden peritonitic attack—great abdominal pain, syncope, vomiting and a very small pulse, without fever, a rupture of a pregnant tube must be at once suspected and immediate operation must be performed. If, however, a hæmatocele is formed, expectant treatment is to be followed, for in the greater majority of instances, the hæmorrhage will cease and with rest in bed and with symptomatic attention to the pain and to constipation, the transudate will eventually be absorbed. Should it become infected, it is to be opened and drained from below. In the case of women who are obliged to work and who cannot remain in bed for some time, the hæmatocele may be opened through the vagina, but Zweifel always explains to them that they can be cured without operation.

2. **Cocaine and Adrenalin.**—Dönitz, working on Braun's discovery, finds that adrenalin diminishes the poisonous effect of cocaine and that it increases the latter's anæsthetic power in duration, in intensity and in area. By intradural injections into cats, he found that the simultaneous injection of cocaine and adrenalin diminished the toxicity of the former one-third, and by the previous injection of adrenalin, by one-fifth. The anæmia caused by the adrenalin is not so dangerous to the sensitive nervous elements as the poison of the cocaine. In man, no bad symptoms were noted and the author is hopeful that the new method will entirely supplant the former method of using cocaine alone for intradural anæsthesia.

5. **Acoine-Cocaine.**—Krauss advises the use of acoine-cocaine for eye operations. It spoils easily and must therefore be used fresh. It is especially useful in subcutaneous and subconjunctival cases. He has used it in enucleations by injecting the muscular insertions all around the globe of the eye, preceding its use by morphine to prevent the pain of the incision of the optic nerve. It is useful in squint operations, in the removal of chalazia, in incisions of any kind on the lids, and in the connective tissue of the bulb, in ptosis operations, and in all operations about the lacrymal sac. Krauss gives the following formula:

	Grammes
Acoine	0.025
Cocaine	0.05
Three-quarter per cent. solution of sodium chloride	5.0

BERLINER KLINISCHE WOCHENSCHRIFT.

August 24, 1903.

1. The Protective Action of the Omentum, By L. DE RENZI, and G. BOERI.
2. The Action of Credé's Collargol, By J. KLINGMÜLLER.
3. Action of Dead Tubercle Bacilli and the Toxines of Tubercle Bacilli, By F. KLINGMÜLLER.
4. Cytodiagnosis, By B. CZERNO-SCHWARZ, and J. BRONSTEIN.
5. Examination for Foreign Bodies with the Röntgen Rays, By LEVY-DORN, and M. JACOBSON.

1. **Omentum as Protective Organ.**—De Renzi and Boeri conclude from experiments on dogs that the omentum acts as a protection to the intraabdominal organs. If the principal vascular branches supplying the spleen are ligated, it is found that the omentum protects the organ and supplies it with blood-vessels for a time. If the spleen is entirely deprived of its circulation, the omentum gradually forms a capsule about it and is finally absorbed by the spleen; but if the omentum is simultaneously removed, the animal dies in a short time. The authors believe that their experiments prove that when toxines are produced by a gangrenous spleen, they are neutralized by the omentum, and a similar action is exerted upon the kidney. Foreign bodies introduced into the peritoneal cavity, are also encapsulated by the omentum.

3. **Dead Tubercle Bacilli.**—Klingmüller calls attention to the fact that local signs of irritation follow every injection of tuberculin, which has been shown microscopically, to be due to lupoid foci in the subcutaneous tissues. The author has examined a number of tuberculins, and has found in some living, in others dead, tubercle bacilli, which were, on inoculation, found to be non-virulent. In specimens free from tubercle bacilli, however, irritation at the site of the injection was always noted, which, the author concludes, must be due to the toxines of the bacilli. It is possible, the author concludes, that lupus originates in this way.

5. **Detection of Foreign Bodies by Röntgen Rays.**—Levy-Dorn and Jacobsohn report a case of a young woman who for many years had had a needle in her hand, and in whom it could be noted with the aid of the Röntgen rays, that on certain movements of the hand, pieces of the needle were broken off. An effort was made to remove the pieces by means of a magnet; but this was unsuccessful and they were removed by operation.

August 24, 1903.

1. Toxic Components of Diphtheria Toxines, By P. EHRLICH.
2. Psychic and Somatic Relations of the "Bohemian Sisters," By B. HENNEBERG, and H. STELZNER.
3. Trigeminal, an Analgetic and Sedative, By OVERLACH.
4. Indications for Induction of Labor in Hyperemesis and Cardiopathies, By O. TUSKAI.
5. Cytodiagnosis, By B. CZERNO-SCHWARZ, and J. BRONSTEIN.

4. **Induction of Labor for Hyperemesis.**—Tuskai calls attention to the fact that hyperemesis

during pregnancy may be due to other causes than the pregnancy, such as hysteria, intoxications, etc., and that in these cases, interruption of the pregnancy serves no purpose. The author believes that the actual hyperemesis of pregnancy is due to perimetritic irritation, and in these cases when emaciation has appeared and local and general measures have proved ineffectual, labor should be induced. In cases of heart disease, induction of labor should be practised when compensation fails and the pulse becomes quite rapid.

5. Cytodiagnosis.—Czerno-Schwarz, and Eronstein conclude their investigations upon the examination of serum and cell elements obtained in disease from the hollow organs of the body. Their own experiences in cases of tuberculous meningitis, peritonitis, etc., lead them to assign to cytodiagnosis a place inferior to other methods of diagnosis. In this respect, they differ widely from the French who lay great stress upon it.

ZENTRALBLATT FUER GYNAEKOLOGIE

August 22, 1903.

1. Ovarian Changes in Cases of Mole Pregnancy,
By LUDWIG PICK.
2. Hysterotomia Vaginalis Anterior for Extreme Cervical Ridity, Complicated with a Tear Through the Lower Uterine Segment and the Parametrium,
By W. RÜHL.

1. Mole Pregnancy and Ovarian Changes.—Pick substantiates, in the report of a case, Stœchel's view that cystic changes in the ovary accompanying or following a mole pregnancy, have their origin in the corpus luteum. Pick found, however, that the so-called polycystic, luteinal degeneration of the ovaries, lose all the macroscopic characters of corpus luteum cysts, while a lutein lamella can be demonstrated microscopically as proving the origin of the cysts. Pick has found in all ovaries previously examined in cases of mole pregnancy, a massive production of lutein tissue and concludes that this is responsible for an overproduction in the tube or uterus of chorioepithelial action which results in the production of a mole.

2. Hysterotomia Vaginalis Anterior.—Ruehl reports the case of a primipara who entered the clinic after five days of labor with uterine tetanus, the presence of a contraction ring, and other evidences of impending uterine rupture. The uterus seemed to be normally developed, but the external genitals and the vagina were extremely small and the cervix exceedingly rigid. By an incision through the anterior wall of the vagina and through the cervix, the child was extracted, with a deep perineal tear, and a deep laceration through the lower uterine segment which extended into the parametrium. The lacerations were all repaired and the patient recovered.

ZENTRALBLATT FUER CHIRURGIE

August 20, 1903.

1. Flap Resection of the Ribs for Entrance to the Hypochondrium,
By G. MARWEDEL.
2. Cholecystenterostomy and Enteroanastomosis,
By D. MARAGLIANO.

1. Flap Resection of the Ribs.—Marwedel recommends the formation of a flap of the chest

wall to reach the hypochondrium on either side or the subphrenic space. He makes a curved incision two fingers' breadth below the free border of the ribs, from the ensiform process to the tenth rib, parallel to the ribs. The rectus, external oblique, internal oblique, and transversalis muscles then become visible under the upper part of the wound. Pressure on the upper edge of the wound brings into view the cartilage of the seventh rib which is cut through. The rectus and external oblique are then bluntly and easily dissected away. The other ribs are then cut through. The entire mass is then strongly drawn to one side when, on the right side, a large part of the anterior surface of the liver becomes visible and by incising the suspensory ligament of the liver, this organ can be pushed downwards. On the left side, the upper part of the stomach and its cardiac end become easily accessible. Marwedel reports a case in which this method was successfully used.

REVISTA DE ESPECIALIDADES MEDICAS

September 5, 1903.

1. Treatment of Scarlatina by Static Electricity,
By DIAZDELA QUINTANA.

1. Treatment of Scarlatina.—Quintana describes some remarkable results obtained from the use of static electricity in the case of a child, aged six years, who came under his care in the second week of an attack of scarlatina. Aside from the high fever, tumefaction of the submaxillary glands, characteristic eruption, and strawberry tongue, the most striking feature in the case was the pronounced anasarca with accompanying albuminuria. These alarming symptoms having failed to yield to the usual remedies, supplemented by a milk diet, recourse was had to electrotherapy in the form of anodal applications of a static current of high voltage to different parts of the neck, trunk and extremities, followed by general electrization; the whole treatment extending over a period of thirty minutes. The rapid and favorable effect of this treatment was seen upon the following day when it was reported that the child's insomnia, hitherto invincible, had been overcome, fever had disappeared and anasarca subsided, with the exception of a slight malleolar oedema. The induration of the submaxillary glands was also markedly decreased. A second and third application of the static current brought about a decrease in the amount of albumin and its final disappearance, notwithstanding the proscription of the alimentary regimen to which the patient had been subjected. After a series of thirty treatments, the child's health was not only fully restored, but improved beyond that enjoyed prior to the illness. The author hazards no explanation of the cure thus obtained. Whether the favorable influence of this method of treatment was due to the diuretic power of the electrostatic bath, to the increased oxidation it induced, or simply to its tonic effect, he is not prepared to say. A case of hæmaturia is also reported, which was overcome by one application of the static current, though the affection had resisted all other methods of treatment during a number of years, in which it seemed likely that the patient would succumb to the condition as his father had done. Quintana emphasizes the neces-

sity of using the static current of high voltage rather than the galvanic or faradaic; the effect of the latter being, in his experience, entirely inadequate as compared to static electricity.

RIFORMA MEDICA.

July 8, 1903.

1. Induced Secretion of Sodium Chloride in Nephritis,
By FRANCESCO DE GRAZIA.
2. The Cortical Centre for Rotation of the Head and the
Graphic Centre, By FERRUCCIO SCHUPFER.
3. The Yellow Diazo Reaction, By C. GUALDI.
4. Microorganisms in the Lungs of Patients Suffering from
Heart Disease,
By FRANCESCO DE GRAZIA (*Concluded*).

1. **Elimination of Chlorides in Nephritis.**—De Grazia investigated the advantages of the method proposed by Achard and Mauté, for the determination of the functional condition of the kidneys. This method consists in administering to the person to be examined ten grammes of sodium chloride daily, and then watching the amount of chlorides in the urine. In normal persons this amount rises soon after the beginning of the test, and sinks again after discontinuing the administration of chlorides. On the other hand, the French authors named, assert that in persons with nephritis the behavior of the chlorides in the urine is quite abnormal as a rule. In one series of patients they found normal conditions to prevail as regards the elimination of chlorides after this test. In another series there was a sudden increase followed by a sudden decrease of chlorides, but besides there was also a marked and proportional increase of substances other than chlorides, i. e., of substances belonging to the urea group, this increase persisting, in fact, after the cessation of the experiment. In a third series the rise of the chlorine curve was retarded for a few days and the fall was gradual, and in a fourth series the amount of chlorides was not increased, after the ingestion of the salt given, but there was an increase in the elimination of the substances other than chlorine. The present author studied the effects of administering chlorides to healthy persons and to persons with nephritis. As the result of this study he concludes, at the outset that the elimination of chlorides may be altered in nephritis. The daily amount excreted in health with ordinary diet is fairly constant, but in nephritis the daily amount is subject to very marked variations. The amount of water excreted is also subject to daily variations. This was observed in both the cases of interstitial nephritis studied, while the case of parenchymatous nephritis did not show such variations, except at occasional intervals.

In all the cases observed the elimination of sodium chloride after administering this salt in the manner described, was abnormal. In the cases of interstitial nephritis the behavior of the chlorides varied. Thus, in one case there was no rise in the chlorides on the days following the administration, and only a slight rise on the second day. In another, on the other hand, the administration of ten grammes of sodium chloride evoked an increase of 14 grammes daily in the elimination of chlorides. In this case the salt in-

gested stimulated the kidneys, or rather the portions of these organs that had remained intact, to increased activity. At the same time, the amount of water and of all the other constituents of urine were increased. In chronic parenchymatous nephritis the kidneys did not respond to the stimulus of the chlorides, and the elimination of the other components was not increased. In a case of heart disease in which there was a stasis of the kidneys there was no response to the stimulus of sodium chloride. The author concludes that certain inconstant variations in the amount of chlorine eliminated take place after the ingestion of chlorides in nephritis, and that the chloride test may prove of value, when more fully studied, in determining the functional activity of the kidneys.

2. **Motor Centre for the Head and Graphic Centre.**—Schupfer reports a case of injury to the second left frontal convolution, produced by a depressed fracture of the cranium over that point. The patient also had a stab wound in the spine at the level of the third dorsal vertebra, causing a complete paralysis of the right leg, paresis of the left side, and retention of the urine and fæces. Three days after admission it was noticed that the patient constantly held his head to the right and that he could not bring it to the median line even passively. This symptom gradually disappeared, but the patient became cachectic, with daily fever, and incontinence of urine and fæces and muscular atrophy. He died some months after the injury. The autopsy revealed the lesion referred to at the base of the middle frontal convolution on the left side. This case shows that an injury to this convolution can give rise to a transient turning of the head to the opposite side, and that probably the centre for the lateral motion of the head has an analogous location in man as has already been discovered in monkeys. In future this fact may be of value in the localization of cerebral lesions. As the eyes were not affected in this case, the author concludes that the centre for the motion of the eyeball is independent from that controlling lateral head rotation. The only other case known, of a lesion of the base of the second frontal convolution, is that of Bar, and in this case there was motor aphasia and agraphia. As these faculties returned after a time, they were probably due, in that instance, to a transitory affection of Broca's convolution. A lesion localized as in the present case does not cause agraphia.

3. **The Yellow Diazo Reaction.**—Gualdi studied the behavior of the diazo reaction in forty patients, in whom the test was carried out daily. The author performed the Ehrlich test in the following manner: He mixed the reagents according to the well-known formula, and added ten c. c. of the mixture to a few c. c. of urine to be examined. He then observed the color produced, and finally added a few drops of ammonia, and shook the urine, in order to determine the color of the foam thus obtained. What he defines as the yellow diazo reaction is the presence of a yellow color in this foam, independently of the color assumed by the urine on the simple addition of the other ingredients of the Ehrlich test. He found this yellow diazo reaction in cases of typical lobar

pneumonia, terminating in the crisis. He also found it in the presence of intestinal putrefaction. In all probability, this reaction depends upon the decomposition of albumen, either in the tissues proper, or in the food ingested. The yellow diazo reaction is connected with the presence of considerable amounts of phenol in the urine, or of substances including phenol radicals in their formulas. Some substances exist, which administered to the patient or mixed with his urine can simulate the yellow reaction referred to. An example of such a substance is a solution of phenol. Clinically the yellow reaction has a prognostic value in pneumonia, and can serve as a ready means of demonstrating the existence of phenol in the urine.

4. Bacteria in the Lungs in Heart Disease.—

De Grazia found, on investigating the bacterial flora of the lungs of persons with heart disease, that the following germs were present in such lungs: In the five cases examined, all had the staphylococcus albus, and a variety of diplococci, one had a diplococcus similar to that of Fraenkel, two a diplococcus similar to the micrococcus of Jaeger-Heubner. In all, there was found *Micrococcus tetragenus*, in two the *Staphylococcus aureus*, in one the streptococcus of mucous surfaces, in one the ordinary streptococcus, in two the monococcus, in one a bacillus similar to that of influenza, in one the pneumococcus of Friedlaender, in two various bacilli, and in one case the streptothrix. The number of patients was small and the cases were all of mitral disease, but the author proposes to extend his researches.

ROUSSKY VRATCH

July 16, 1902

1. A Case of Spurious Female External Hermaphroditism.
By N. A. BATUEFF.
2. An Imitation of a Monster from Japan. A Calf with a Human Head,
By N. A. BATUEFF.
3. A Few Words Concerning the Compound Essence of Antimelline in Diabetes,
By I. D. STUDZINSKI.
4. On the Question as to Anterior Vaginal Hysterotomy,
By S. I. ROSENFELD.

1. **Hermaphroditism.**—Batueff reports a case of spurious female external hermaphroditism in the body of a newly-born child. The internal female genital organs were complete, while the external organs were male with arrested development in the form of hypospadias. The author agrees with Taruffi, from a study of the literature, that there is no definite connection or interdependence between the various anomalies in the internal organs and the unusual conditions in the external organs in cases of hermaphroditism.

2. **Calf with a Human Head.**—Batueff has received a specimen given to a ship's captain in Japan and was intended for exhibition in the museum of anatomy in Odessa. The sea captain states that he received this specimen from a butcher in Nagasaki, who told him that one of his cows had given birth to twin monsters, one of which had the head of a calf and the limbs of a child, while the other had the body of a calf and the head of a child. The latter of these monsters

is the specimen described. It showed a foetal calf with a head resembling that of an adult man with a hooked nose and a tongue protruding between the lips. The specimen was a clever imitation, for by means of fine threads the proper folds were made in the ears, the cheeks were stuffed out with cotton, the nose propped up with a piece of wood over which the skin had been carefully drawn, and the nostrils had been reduced to the proper size by means of threads which were carefully concealed.

4. **Vaginal Hysterotomy.**—Rosenfeld reports two cases of anterior vaginal hysterotomy. In 1896, Duhrssen suggested his method of artificially terminating a labor by means of the vaginal Cæsarean section. This operation has been performed in about sixty cases. Its purpose is to obtain an opening through which the living child can be extracted when the os is closed and the cervix cannot be dilated, without having recourse to laparotomy. The pelvis must, of course, be large enough to permit the extraction of the child. The anterior vault of the vagina is incised, the bladder separated, a longitudinal incision made in the anterior wall of the cervix and body of the uterus, and finally, a similar incision in the posterior wall of the cervix and body of the uterus after separating the peritoneal layer in Douglas's space. A rapid extraction of the child, usually by podalic version, the removal of the placenta, and the suturing and packing of the uterus, are the closing steps of the operation. The indications for this operation are cancer, fibroid tumors, or a dangerous condition of the mother due to disease of the heart, lungs, or kidney, etc.

BOSTON MEDICAL AND SURGICAL JOURNAL.

September 21, 1903.

1. The Ill Health of Francis Parkman (*Concluded*).
By GEORGE M. GOULD.
2. Three Cases of Tumor of the Cerebellum,
By JOHN JENKS THOMAS.
3. Tuberculosis of the Spine.—A Statistical Study of the Cases in the Orthopædic Department of the Carney Hospital,
By JOEL E. GOLDTHWAIT.
4. A Note on the Association of a Rise in Systolic Blood Pressure, with the Onset of Perforative Peritonitis in Typhoid Fever,
By JOHN BRADFORD BRIGGS.

3. **Tuberculosis of the Spine.**—Goldthwait's paper is a brief study of all of the cases of Pott's disease which applied to the orthopædic department of the Carney Hospital prior to 1902. In all there are 108 cases, of which number 62 reported more or less regularly for treatment. Of this number (62) 41 were under 30 years of age, and in 21 of the cases the disease had existed for from 6 to 20 years before applying for treatment. In 20 cases there was abscess. Of this number 8 died and 4 are at present in poor condition. In 11 cases there was paraplegia, and of this number 2 died. Of the 62 cases 11 died, and in nearly all death was due to the extension of the disease locally or to some other part of the body, the average time between the onset of the disease and the time of death being four years. In considering the report it is to be remembered that the cases here studied are entirely hospital patients,

living for the most part necessarily under poor hygienic conditions. A similar number of private cases studied would possibly and probably show more favorable results.

4. Blood Pressure in Peritonitis.—Brigg studied the systolic blood pressure on a large number of typhoid patients in Dr. Osler's service in the Johns Hopkins Hospital. His object was to see if there occurred a rise of blood pressure in connection with perforation. In only two cases did symptoms of perforation occur. *Case 1.*—The systolic blood pressure rose suddenly one night from 106 mm. to 144 mm. of mercury. Four hours later symptoms of perforation set in. Operation was performed and perforation found. *Case 2.*—Patient developed symptoms of perforation. There was no rise in the blood pressure. Operation was performed, but no perforation was found, nor were there any signs of peritonitis. The cases of typhoid in which there was no suspicion of perforation showed more or less uniform blood pressure readings. From a general study of the subject of blood pressure and from his experience with the typhoid cases, the author concludes: (1) That patients with general or rapidly spreading peritonitis have constantly, at least in the early period, abnormally high blood pressures. (2) That in perforative peritonitis a sharp rise in blood pressure may precede the onset of other symptoms. (3) That in doubtful cases, where perforative peritonitis is suspected, and the general previous blood pressure level is known, the course of the blood pressure after the onset of grave symptoms should receive consideration in determining the propriety of operation. The author hopes that the publication of his results will stimulate others to take up this study, since it promises useful results.

October 1, 1903.

1. Urethral Tuberculosis, with Report of a Case,
By ARTHUR L. CHUTE.
2. A Note on the Transmission of Whooping Cough by
Indirect Contagion, By JOHN LOVETT MORSE.
3. The Ill Health of Francis Parkman (*Concluded*),
By GEORGE M. GOULD.

1. Urethral Tuberculosis.—Chute reports a case of tuberculosis of the urethra which presented a number of unusual symptoms. The features of chief interest were these: The disease, while not confined to the urethra, was most marked in the anterior portion; the acute stage of the disease ran a favorable course without treatment; healing of the urethral lesions was accompanied by calcification in the submucous tissue. There was some involvement of the prostate and of the inguinal glands. The testes, epididymides, and vesicles showed no signs of disease. A search for the tubercle bacilli proved negative, and the diagnosis was made on the history of the case and its clinical appearance. The author discusses his case at some length and cites from the literature the most important cases of urethral tuberculosis so far recorded. It would seem that, while it may be possible for the urethra to become infected with the tubercle bacilli directly, either from direct inoculation or through the blood stream, yet the

weight of clinical evidence shows that in almost all cases disease of the urethra is secondary to other tuberculous lesions of the genitourinary tract. The author discusses the symptomatology, diagnosis, and prognosis of these special lesions. With regard to treatment the following advice is given: (1) General measures are likely to give the best results. Camping by the seashore is, in the author's opinion, of the greatest benefit. It has, also, the great advantage of cheapness. (2) Local treatment, unless specially called for, is of questionable utility. Injections of silver nitrate are very badly borne by the class of cases under consideration. Probably injections of an iodoform emulsion might prove of some benefit. (3) Operative intervention will not infrequently be indicated. The special operation called for must depend on the condition. Gradual dilatation, internal urethrotomy, perineal urethrostomy, evacuation, curetting, and cauterization of abscess cavities, and even at times amputation, may be of service. Whatever operative treatment may be undertaken the importance of keeping up hygienic treatment must not be overlooked.

2. The Transmission of Whooping Cough.—Morse, during a recent epidemic of whooping cough in Boston, was called upon frequently to state whether the disease could be transmitted through a third party or through contaminated cloths. In this way he was forced to recognize that the opinions he held on the subject were based on general impressions rather than upon facts. A search of the literature seemed to show that most writers were in the same position as himself. He therefore sent a circular letter to well known men asking for their opinion on the subject. Forty answers were received, and of these only three gave data; reporting four cases in which indirect transmission of the disease seemed probable. On the whole, it appears impossible to draw very positive conclusions from the material at hand. Very little seems to be known of the indirect contagiousness of whooping cough. Four of the cases reported seem to justify the conclusion that in exceptional instances whooping cough may be carried by third persons or by clothing and other articles.

MEDICAL NEWS.

September 26, 1903.

1. Concerning Some Points in the Treatment of Typhoid Fever,
By GLENTWORTH R. BUTLER.
2. Note on Typhoid Fever and Scarlet Fever, with Special Reference to the Diagnostic Value of Blood Cultures,
By LUDWIG HEKTOEN.
3. Typhoid Fever in Infancy and Childhood,
By J. P. CROZER GRIFFITH.
4. Nourishment, Medication, Hydrotherapy, and General Management of Typhoid Fever Cases,
By W. J. BAKER.
5. The Etiology and Chemical Pathology of Gall Stones,
By C. A. HERTER.
6. The Pathology and Treatment of Tardy Postoperative Intestinal Obstruction with Report of Cases,
By ELLSWORTH ELLIOT, JR.

2. Typhoid Fever and Scarlet Fever.—Hektoen calls special attention to two points: First,

the possibility of mistaking typhoid fever for scarlet fever, on account of early rash and angina (the two diseases can, of course, occur together); and, second, the value of bacteriological examination of the blood in doubtful cases of typhoid. The author asserts that, by proper culture methods, the typhoid bacillus may be constantly recovered from the blood of typhoid patients early in the disease, at its height and also at the beginning of relapses. Two illustrative cases are recorded, and these the author discusses quite fully.

3. Typhoid Fever in Infancy and Childhood.

—Griffith's paper is of the formal type. It is a condensation of much that has recently been written on this subject. We note only that the two chief characteristics of typhoid fever in infancy and childhood, as compared with the typhoid of adults, are: (1) The less typical onset and course; and (2) the tendency of nervous symptoms to overbalance the intestinal ones. It is in the first two years of life that one is most liable to be misled. With regard to treatment it is well to call attention to the limitations of hydrotherapy in the management of typhoid in young children. Although valuable, hydrotherapy must be used with much caution and the method of Brandt, carried out in its exactness, is seldom applicable. In the author's experience the true cool or cold bath occupies but little place at this time of life. Children as a rule do not tolerate it well. Even a tepid plunge of 85° to 90° F., or the graduated bath, is not well borne, even in older children. Sponging will often give the best results, and at times an ice bag on the abdomen will prove extremely serviceable in reducing temperature. It must always be remembered that children not only are apt to develop high temperatures readily, but also tolerate such high temperatures unusually well. In many cases it is, therefore, possible to let the temperature take care of itself.

5. The Ætiology and Chemical Pathology of Gall Stones.

—Herter concludes in this issue a notable paper on the formation of gall stones. It does not lend itself to condensation into a few paragraphs. What can be said in way of summary is, perhaps, best said thus in the author's own words: "It is plain from what has been said that there is at present no unequivocal evidence that gall stones arise from constitutional derangements unconnected with microorganic invasions of the gall bladder. On the other hand, it is certain that the cholesterin of the bile can be considerably increased by local irritants unconnected with infection, and it is likely that the requisite local conditions for such increase sometimes arise through purely metabolic disorders. While gall stones are commonly the result of local infections we should carefully guard against the conclusion that they can never have a diathetic origin. It is at least highly probable that diathetic conditions are capable of so altering the composition of the bile as to materially favor the production of calculi in the presence of suitable local bacterial activities."

AMERICAN MEDICINE

September 26, 1903.

1. Typhoid Fever: An Analysis of 717 Cases.
By JOHN McCRAE.
2. Spotted Fever (Tick Fever) of the Rocky Mountains: A New Disease,
By JOHN F. ANDERSON.
3. Some Biologic Differences Between the Natural and the Artificial Feeding of Infants,
By DAVID L. EDSALL.
4. Personal Experience in Operations Upon Diabetic Patients,
By CHARLES P. NOBLE.
5. The Value of Eosinophilia in the Diagnosis of Trichinosis, with Report of a Case, By EDWIN R. GOULD.
6. Inguinal Hernia of an Imperfectly Developed Uterus and Appendages,
By R. FERGUSON.
7. The Surgery of To-day, By ALEX. HUGH FERGUSON.

2. **Tick Fever.**—Anderson gives a short account of this new disease. A full report of his investigations, with photographs and colored drawings of the parasites, is published in Bulletin No. 15 of the Hygienic Laboratory. Clinically the disease resembles typhus more closely, perhaps, than any other known disease. It has an incubation of about seven days and the causative parasite (called the *Pyroplasma hominis*) is probably introduced into man through the bite of the tick. In Montana the disease is extremely fatal, the mortality varying between 70 and 90 per cent. In Nevada, Idaho, Oregon, and Wyoming the mortality is only about two per cent. Up to quite recently the treatment has been purely symptomatic. Recently five cases, in Montana, have been treated with large doses of quinine and recovery has taken place in all. The author recommends that quinine in large doses, and preferably by subcutaneous injection, be given an extensive trial.

3. **Biologic Differences Between Human and Cow's Milk.**—Edsall calls attention to the fact that the feeding of infants with artificial food is not a problem in simple chemistry. There are certain biologic differences between human milk and cow's milk, which, although not yet completely understood, are sufficiently well understood to enable us to have some understanding of the reasons why artificial foods are so inferior to breast milk for infant feeding. Here are some of the points that have been more or less well established: (1) The bottle fed child is obliged to waste part of the energy contained in the ingested food in converting such food into a suitable tissue pabulum. The nursing child is not obliged to do this. (2) There exist certain striking biologic differences in milks. These differences are specific and cannot be overcome by any methods of modification at present at our disposal. (3) Nursing infants are able to withstand more effectually than bottle babies both local and general infections. This is not due to the fact that nursing babies are usually more vigorous than bottle babies. It is due to the fact that the nursing infant receives through its mother's milk certain substances which increase the bactericidal power of its blood serum. Many more interesting facts have been observed with regard to the biologic properties of milk, but the whole subject is yet so obscure that it is impos-

sible to make generalizations or draw too binding conclusions.

4. Operations Upon Diabetic Patients.—Noble reports seven personal cases and has collected 62 cases from the literature. These 69 cases are carefully tabulated. It would seem from the author's experience that the dangers of operating upon diabetics have been greatly exaggerated. Of the author's seven cases only one patient died and the wounds in the other six patients healed in a normal manner. None of the author's cases were operated on for diabetic gangrene.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

September 26, 1903.

1. The Various Methods of Preserving and Mounting Gross Eye Preparations, By CASEY A. WOOD.
2. Tumors of the Conjunctiva. Illustrated by the Present Exhibit of Morbid Growths, By ADAMS SHUMWAY.
3. Paraffin Injected Subcutaneously for the Correction of Nasal and Other Deformities, By HARMON SMITH.
4. The Subcutaneous Injection of Paraffin for the Correction of Deformities of the Nose (*Concluded*), By F. GREGORY CONNELL.
5. Multiple Periosteal Sarcomata of the Cranium, with Involvement of Retroperitoneal Lymph Nodes and Attending Severe, Probably Pernicious, Anæmia, By WALTER L. BIERRING.
6. Political and Professional Ethics, By JAMES D. LOVE.

3 and 4. Paraffin in Nasal Deformities.—Smith gives the following list of the advantages and dangers to be considered in the use of paraffin for the correction of nasal deformities. The advantages are: (1) The deformity is corrected without a resulting scar, provided no slough or abscess follows, which is a sequence of surgical uncleanness or over injection. (2) A 2 to 4 per cent. solution of cocaine is all the anæsthetic necessary, and completely overcomes the pain of inserting the needle, which is all that attends the operation. (3) The slight reaction following the injection is temporary, and the patient may resume his daily pursuits in twelve hours. (4) The results, when proper care has been exercised, are pleasing alike to patient and operator. The possible dangers are: (1) Abscess or slough, due to either infection or overinjection. (2) Embolism. (3) Deformity from over injection. The dangers may be almost wholly avoided by attention to the proper details. The syringe employed should have a screw piston so that the paraffin may be forced out slowly, regularly, and in a semisolid condition. The paraffin should have a melting point of about 110° F. The author adds petroleum jelly to commercial paraffin in order to reduce the melting point to the proper limit. Surgical cleanliness must be observed throughout the operation. The author gives in detail the complete technics of this method of correcting nasal deformities. By using a suitable screw syringe and a good paraffin the danger of over injection and embolism are reduced to a minimum. Necrosis is best avoided by keeping in mind the chief causes of this accident, that is: (1) Surgical uncleanness. (2) Too much pres-

sure, cutting off blood supply to the part. (3) Injection into the skin and not beneath it. (4) Constitutional disease of patient, as diabetes or Bright's disease.

Connell's paper, which is concluded in this number, taken in connection with the one by Smith on the same subject, and with the discussion which followed the reading of the papers, covers very adequately the consideration of this fairly recent therapeutic measure. The author's conclusions are: (1) Corning was the first to use solidifying oils in surgery. (2) Gersúny was the first to recommend and to use paraffin subcutaneously as a prosthetic measure. (3) The use of paraffin as a prosthetic substance is still in an experimental stage. (4) The field of usefulness of paraffin subcutaneously in other than nasal deformities is rapidly increasing. (5) Prosthetic operations, undertaken solely for cosmetic effect, should be absolutely harmless. (6) All cases, regardless of the termination, should be reported, as it is only by a study of a large number of cases that the legitimate place of this method in surgery can be ascertained. (7) The special syringe, with screw pressure, is almost indispensable. (8) A general anæsthetic is rarely, if ever, indicated. (9) The needle may be made to enter at either the base or the tip of the nose. (10) Rather inject too little than too large an amount of paraffin. (11) In a series of six cases, but one of the numerous objections was encountered, and that, a redness of the skin remaining permanently after the injection.

MEDICAL RECORD.

September 26, 1903.

1. Some Aspects of the Old and the New: A Plea for Conservatism in Medicine and Surgery, By BEVERLEY ROBINSON.
2. Abnormal Frequency of Urination Treated with Epidural Injections, By FERD. C. VALENTINE, and TERRY M. TOWNSEND.
3. Nitrous Oxide in the Production of Surgical Anæsthesia, By IRVING A. MEEKER.
4. The Treatment of the Pedicle in Ovariectomy and Salpingo-oophorectomy, By L. H. DUNNING.
5. Post-Graduate Work in Budapest, By WILLARD J. STONE.
6. A Case of Venereal Warts, By A. P. STONER.
7. Circumcision in Infancy, By WM. B. HARLOW.

2. Epidural Injections in the Treatment of Frequent Urination.—Valentine and Townsend, through the courtesy of Dr. Dent, of the Manhattan Hospital, West, have been able to conduct a very interesting series of experiment on the value of epidural injections in the treatment of abnormal frequency of urination. Eight cases only are reported in detail and these eight cases have been under observation for less than three months. The authors report their work in the hope that others will follow up this study and sound a warning against the drawing of rash conclusions. The method of making the injections is that advocated by Fernand Cathelin, of Paris, from whom Valentine received the idea. The results obtained so far have been very satisfactory and warrant giving the method a more extended

trial. The technics of the procedure is given in detail. The authors' conclusions are: (1) That epidural injections with decinormal salt solution offer the most promising results in abnormities of urination due to faulty vesical innervation. (2) That incontinence of urine, enuresis, excessive frequency of urination (unless due to other pathological conditions) can at least be ameliorated by epidural injections. (3) That, cautiously performed, epidural injections are in no wise dangerous to the patient. (4) Epidural injections are no more painful than any hypodermic injection with a mild solution. (5) Epidural injections can be performed by any one who follows the technics outlined, and is alert to those anatomical variations which are so frequent in the region. (6) The immediate effects of epidural injections are very rarely even disagreeable.

October 3, 1903.

1. A Case of Diffuse Gonococcus Infection of the Entire Upper Extremity, By CHARLES A. POWERS.
2. The Manic Depressive Psychosis and Some of Its Ætiological and Pathological Phases, By WALTER D. BERRY.
3. Causes, Consequences, and Care of the Injuries to the Parturient Canal, By BENSON M. FELDMAN.
4. The Selection of the Anæsthetic in Children, By S. J. KOPETZKY.
5. An Operation for Removing the Tonsils, By WILLIAM H. STEERS.

1. **Diffuse Gonococcus Infection.**—Powers reports the following case: A man, twenty-eight years old, acquired gonorrhœa for the first time. For nine days the disease pursued a normal course. At the end of this time the right elbow joint began to swell and soon became red, hot, and extremely painful. The temperature was irregular and fluctuated between 100° and 102° F. General and local measures were resorted to with apparent benefit, at first, but the improvement soon gave way to an exacerbation of all the symptoms. Fifteen days after the onset of the joint symptoms the presence of pus was so strongly suspected that operation was decided upon. The forearm and arm and the tissues about the joint, but not the joint itself, were opened by ten incisions, which were irrigated and packed. Pus was found in only one place. Smears and cultures, however, showed the presence of the gonococcus in nearly pure culture. All went well for a couple of days, then the infection began to spread and the whole forearm and hand, as well as the pectoral region, neck, and parotid gland of the affected side became infected. This extension of the inflammation was controlled by local and general measures with no further operative intervention. The patient gradually began to improve, but it was not until the end of three months that systematic massage of the arm could be resorted to. Complete recovery was only attained after a long time, and there remained even then considerable loss of function. The author's position with regard to post-gonorrhœal affections is that they are to be considered as metastatic in origin. Gonorrhœal septicæmia is an entity whose existence can no longer be doubted, and the time has arrived to do away with the confusion which exists and which is due

to a lack of appreciation of the true ætiological cause of postgonorrhœal complications.

2. **Manic Depressive Psychosis.**—Berry asserts that the term manic depressive psychosis is now applied to "that form of mental disease which is distinctly recurrent as definite forms appearing at varied intervals throughout the psychic life of the individual." The condition is not diagnosticated correctly with sufficient frequency. There are three types of the disease: The maniacal, the depressed, and the mixed. A case of the mixed variety is reported at extreme length. While the ætiology of the condition is obscure, heredity is probably one of the ruling factors. The author considers an inherited gouty or rheumatic tendency as of ætiological importance; in fact, he thinks that anything which tends to undermine the physical body is of ætiological importance. With regard to the pathology, the author asserts that no characteristic anatomical or pathological changes worthy of note have been observed. He considers, however, that all insanity "arises from, or consists in, the morbid and disordered activities of certain portions of the brain and general nervous system." For which reason, an ordinary diathesis may have ætiological importance since it may reduce the brain to a condition of unstable equilibrium.

4. **The Anæsthetic for Children.**—Kopetzky does not believe it wise to lay down any hard and fast rule as to which anæsthetic should be used. It is a mistake, however, to assert, as is so often done, that chloroform is less dangerous than ether when used on children. In their order of safety the various general anæsthetics are: Nitrous oxide; nitrous oxide followed by ether; ether alone; and, finally, chloroform. For general purposes the nitrous oxide-ether method is almost all that can be wished. The statement has lately been made that if the after effects of ether are considered, it will be found that chloroform, on the whole, is the least dangerous anæsthetic. This is not borne out by the author's experience. The danger of ether pneumonia has been grossly exaggerated. Over twenty thousand children have been anæsthetized by the nitrous oxide-ether method at the Gouverneur Trachoma Hospital and not one case of ether pneumonia has occurred.

ZENTRALBLATT FUER CHIRURGIE.

September 5, 1903.

1. Operative Massage of the Heart, By PAUL SICK.

1. **Operative Massage of the Heart.**—Sick reports the case of a young man who died while being operated upon for tuberculous peritonitis under chloroform. His heart had stopped beating for forty-five minutes, his respirations had ceased, and his pupils were widely dilated. Sick opened the pericardium, massaged the heart, and applied hot compresses to it while artificial respiration was being performed. In half an hour, the heart was beating strongly and regularly, and life was again resumed, the patient living for twenty-seven hours, when he died in collapse. The case is illustrative of the extreme value of direct cardiac massage in cases of sudden death.

Letter to the Editor.

THE AMERICAN CONGRESS OF TUBERCULOSIS.
PATHOLOGICAL LABORATORY,
MCGILL UNIVERSITY,
MONTREAL, September 18, 1903.

To the Editor,

Sir: Upon my return from abroad a few days ago, I learned for the first time that I had been announced as one of the honorary presidents of the American Congress of Tuberculosis. This announcement had been made without my knowledge, and had been communicated to the public press before ever I had been approached in the matter. After that communication (June 11th) I find that I was addressed upon the subject (June 12th). The notice which I have before me is in the form of a copygraph letter upon the flimsiest of yellow paper, dirty and badly folded, and is not to the effect that I had been appointed honorary president, but merely a curt reference to an enclosed list of officers elected at a recent session, ending with the expression of the hope that I would accept. The enclosure consists of two columns cut out of the New York *Daily Tribune*, which, it is true, contains my name (misspelled) on the list of honorary presidents. I am not in the least surprised that my first assistant when opening my correspondence in my absence mistook the communication for a second-class advertisement, or something of the kind, and never realized that this was matter which should be forwarded to me.

Under no circumstances would I have consented to allow my name to be connected with the organization in question. The employment of that name as that of an honorary president is, and has been, wholly unauthorized, and I have written asking that it be withdrawn.

Yours faithfully,
J. GEORGE ADAMI.

Proceedings of Societies.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNÆCOLOGISTS.

Sixteenth Annual Meeting, held in Chicago, September 22, 23, and 24, 1903.

The President, Dr. L. H. DUNNING, of Indianapolis, in the chair.

Dr. WILLIAM A. EVANS, of Chicago, delivered an address of welcome on behalf of the local medical profession.

The Relation of the Colon to Abdominal Tumors.—A paper, with this title, was read by Dr. JAMES F. BALDWIN, of Columbus, Ohio. The colon, while it was quite movable, he said, had its mesocolon well fixed to the abdominal parietes. By inflating the colon, when necessary, by pumping air in at the anus, its relationship to abdominal tumors could be quite definitely determined, and this relationship would enable an accurate diagnosis of the tumor to be made in many cases in which such diagnosis would otherwise be impossible. This was particularly true in distinguishing tumors of the spleen, pancreas, kidneys, liver,

gall bladder, etc., from tumors originating in the pelvis or in connection with the small intestine and mesentery.

The Limitations of the Cæsarean Section.—In a paper on this subject, Dr. E. GUSTAV ZINKE, of Cincinnati, stated that the basis of his paper was an analysis of eighty-eight Cæsarean sections, including eight Porro operations, which had been reported by fifty-two different authors since January, 1900. The causes for which the operation had been performed were, in the order of their frequency, as follows:

Pelvic deformity:	
Namely	Flat rhachitic pelvis.....13
	Uniformly contracted rhachitic pelvis.....7
	Irregularly contracted rhachitic pelvis.....4
	Flat rhachitic pelvis complicated by eclampsia.....3
	Flat rhachitic pelvis complicated by tumor.....1
	—28 times.
Just minor contracted pelvis.....12	
Fibroid tumors obstructing labor.....11	
Eclampsia.....6	
Hysteropexy.....6	
Cicatricial contractions of the vagina.....5	
Causes not stated.....4	
Simple disproportion between the fetal head and the pelvis, with lack of expulsive power.....3	
Carcinoma of the cervix.....3	
Carcinoma of the rectum.....2	
Placenta prævia.....2	
Retrodiscalment, impaction, and adhesion of the fundus.....2	
Gunshot wound of the gravid uterus.....1 time.	
Ovarian tumor obstructing labor.....1	
Threatened rupture of the uterus.....1	
Congenital displacement of the kidney.....1	
—88 times.	

The Value of Vaginal Cæsarean Section.—Dr. M. STAMM, of Fremont, Ohio, read a paper on this subject. He stated that to Dührssen, of Berlin, the credit was due for having introduced this valuable method into practice. The clinical reports of operations undertaken on various indications spoke favorably for this method. The indications for this operation, as given by Dührssen, were: 1. Abnormal conditions of the cervix and lower segment of the uterus (carcinoma, myoma, rigidity, stenosis, and partial pouchlike distention of the lower uterine portion). 2. Dangerous conditions of the mother which might be removed or relieved by prompt emptying of the uterus; affections of the heart, lungs, and kidneys. 3. Conditions of the mother where death was imminent and could be foreseen. The last two indications had value only in cases where the cervix was closed and not dilatable, or where the depressing influence of labor pains should be obviated, as in affections of the heart and lungs. In pregnancy complicated with cancer of the uterus Dührssen advocated immediate vaginal section, with subsequent extirpation of the uterus, no matter at what time of pregnancy or at what stage of labor this condition was encountered. Dührssen's mode of procedure was described by the essayist, who stated that there were over sixty cases of vaginal Cæsarean section reported so far. The majority of these had been undertaken for cancer of the uterus, but the number performed for puerperal

convulsions was also increasing rapidly, and this trouble would furnish the chief indication for such an operation in the future. Most authorities were agreed that rapid delivery was the most important measure to reduce the mortality in eclampsia. He also thought that rapid dilatation with Bossi's dilator or some similar instrument, where the extent of incision or laceration was under better control and where the wound gave more promise of healing by primary union, was indicated. The operative technique was described. He had done vaginal Cæsarean section in two cases, with favorable results.

Among the thirteen cases of flat rachitic pelvis were Coakley's case, in which the operation was done three times in six years and a half, and Ill's case, in which the operation was done twice in one year. In these eighty-eight cases, sixty-six mothers and fifty-six children had survived. In seven instances, however, it was not stated whether the mother lived or died, and in thirteen the same information was wanting as to the child. In the consideration of the maternal and foetal mortality, the cases where there was no reference as to the result of the mother and child were excluded. Thus it was found that, out of eighty-one mothers, sixty-six lived—81.5 per cent. Again, it was found that the cause of death in five of the mothers was really malignant disease, and the patients recovered from the effects of the operation, death taking place two months, four months, one year, and two years, respectively, after the operation. Counting these five cases as recoveries, seventy-one, not sixty-six, mothers survived, so that the maternal mortality was 12.34 per cent. Of the ninety children born, fifty-six lived. If the thirteen cases were excluded where the result as to the child had been omitted, the foetal mortality amounted to 49 per cent. But a careful study of all cases revealed the fact that three of the children were dead before the operation, two succumbed during the operation, seven died within twenty-four hours, and four within forty-eight hours. Three lived two weeks, and one died of enteritis at the end of three months. If we added to the list of children surviving the operation those who lived twenty-four hours and over, fifteen in all, the immediate foetal mortality was reduced to 25.26 per cent.

The principal object of the paper was to determine as accurately as possible the limits of the sphere of usefulness of Cæsarean section in the light of recent advances in operative obstetrics and for the sole purpose of obtaining the best results for both mother and child under the most trying circumstances.

When, two years ago, the author had advocated the adoption of Cæsarean section for certain cases of central placenta prævia, there had been quite a marked opposition, and but few had supported the speaker in his recommendation of the operation for this always alarming obstetric complication. Much had been said and written against it since, and still to-day nearly every new textbook on obstetrics and other recognized authorities on this subject admitted that Cæsarean section might be justifiable under favorable conditions in the class of cases of placenta prævia then referred to.

The Gilliam Operation; A Clinical Contribution.—Dr. EDWARD J. ILL, of Newark, N. J., followed with a paper on this subject. The author had done Gilliam's operation eighty-six times since the author described it, three years ago. In other words, he had done it in 68 per cent. of all cases operated on for retrodisplacements. There had been no deaths. Fifty-one of these patients had reported themselves as entirely well, six as markedly improved, and four as no better. Seven had become pregnant, and two had given birth to children normally. Only one of the four reported as no better had had a relapse of the malposition. This one was operated on again and an atrophy of the distal end of the round ligament discovered.

The writer had modified Dr. Gilliam's operation by not piercing the whole abdominal wall, fearing a weakness from which hernia might result. He would separate the rectus abdominis from its anterior sheath and pierce the muscle, the inner sheath, and the peritonæum, and progress, as taught by Dr. Gilliam, fastening, however, the round ligament to the posterior surface of the anterior sheath of the muscle with chromicized catgut, thus leaving a strong fascia intact.

Analysis of Common Causes of Death Following Pelvic and Abdominal Operations.—In a paper on this subject, Dr. JOSEPH PRICE, of Philadelphia, said that he had selected this topic, not because he had had a high mortality, but for the reason that it was one of great interest to the members. He said he had written several papers on postoperative complications and several upon repeated operations in incomplete abdominal procedures. This was the class of cases that perplexed him more and more as he grew older, and gave him the only mortality he met with nowadays. Recently he had had a number of trying and sad experiences. In one case a patient came from a prominent hospital after a very simple but incomplete operation, where the operator had only partially removed one diseased ovary and tube, leaving the organs on the other side in a badly diseased state. She was sent to him some four months following this incomplete procedure, emaciated, septic, and suffering acutely. He opened the abdomen and found a strongly adherent bowel and omentum. The consolidation of everything made him very suspicious of what he would find below. The viscera freed, he found a huge four foot gauze towel in front of the uterus, the towel and pus pushing the uterus well back. The stench contaminated the hospital in a few seconds. This patient lived but a few hours, her death being the only one in the hospital in a long series, greatly distressing the operator, nurses, and all concerned. Postoperative sequelæ and deaths from gauze were very common. He was satisfied that they were thrice more common than from sponges. For a number of years he had used sponges and valued them for clean work, for packing, or for a dry operation, and he believed the viscera troubled him less than at the present time. He had then been wholly ignorant of postoperative sepsis in his own work and in that of his pupils. Had he now the time to take care of his sponges, he would go back to them, highly as he valued gauze. To his mind it was one of the most

valuable materials in surgery. He spoke of the value of good nursing in the reduction of mortality rate.

A number of good operators attributed their low mortality wholly to the use of gloves. One very scientific teacher had asked him, before putting on gloves, if he did not think 12 to 15 per cent. was a low mortality, taking the cases as they came. He replied, "No, too high." After adopting the gloves he had reduced his death rate to about nil, but his precautions were all redoubled. For example: After operating in a septic case, other operations were postponed for thirty-six to forty-eight hours. Again, in a study of the complications and pathology, in his reported cases, Dr. Price failed to find one in which the patient could have died from good surgery.

Recently a brilliant young surgeon had assisted him in an operation for acute gangrenous and perforative appendicitis, with general septic peritonitis, the peritonæum charged with and bathed in septic fluid. This patient got a wash toilet and a coffee dam drain; she never had a bad symptom. The young surgeon remarked that about all these patients died in his hands. In a splendidly appointed hospital, with which this young surgeon was connected, the mortality was high in appendicitis operations. His reasons for alluding so fully to this subject were that the disease was so common and the death rate so high.

Vaginal incisions and perforations favored a high mortality in later operations, done for the clean removal of the remaining diseased pelvic contents. Puriform tubes and ovaries, suppurating tubes and ectopic gestation, seldom allowed of sufficient improvement in vital force and stamina to bear well the complete operation—suprapubic—after they had been incised through the vagina. Primarily they would all have been easy by complete methods, and without mortality. The choice of method and material was of paramount importance to good work, and the suprapubic procedures, when complete and done early, drainage used when necessary, should, like the infrapubic, when done by one of the finished operators, like Jacobs, Ségond, or Pryor, give a mortality close to nil. He had done a large number of vaginal hysterectomies for malignancy of the uterus, cervix or fundus, and for small fibroids, without a death, and it was one of the easiest operations he was asked to do. In suppurative forms of tubal and ovarian disease he did not consider the vaginal route adequate, because the adherent omentum and bowel and the diseased appendix were wholly neglected.

(To be continued.)

New Medical Library in Philadelphia.—About a year ago Andrew Carnegie offered \$50,000 to this institution for a library, if the physicians would raise a like sum, which they have succeeded in doing and \$4,000 more. The college has purchased a property at the southeast corner of Seventy-first and Ludlow Streets for \$80,000, on which it is intended to erect a handsome structure, the style of which is to be determined by architectural competition. The building now occupied by the college, which is valued at \$150,000, will be sold.

Book Notices.

Tumors, Innocent and Malignant. Their Clinical Characters and Appropriate Treatment. By J. BLAND SUTTON, Surgeon to the Chelsea Hospital for Women, Assistant Surgeon to the Middlesex Hospital, London. Third Edition. Chicago: W. T. Keener & Co., 1903.

The third edition of Sutton's well known work includes some new views and the establishment of new clinical entities. Sutton places choriomata among the sarcomata. While no man at the present moment can say that he is wrong, the bulk of authoritative opinion is in favor of regarding the malignant "deciduomata" as of epithelial origin. In this edition the author regards Falloppian cancer as well established as a clinical entity, and has taken the myelomata from the group of sarcomata.

Sutton tells us that, on the advice of a competent critic, he has dropped the word "epithelioma" and has substituted for it the term "squamous celled cancer." This, too, we believe to be somewhat far fetched, especially since the author does not give his reasons for the change.

No discussion is given as to the cause of the malignant growths, and in this we think the author is justified in view of the present perturbed state of the professional mind. Sutton regards the parasitic theory of the origin of malignant neoplasms as still hypothetical; but he points out, also, that our ignorance of the causation of benign growths is equally dense.

The book is unquestionably one for the student of pathology; but so many practical clinical points are touched upon, and the relation of neoplasms to their clinical manifestations is so well and so frequently brought out, that it should find a wide audience.

The Internal Secretions and the Principles of Medicine. By CHARLES E. DE M. SAJOUS, M. D., Fellow of the College of Physicians of Philadelphia, etc. Volume I. With Forty-two Illustrations. Philadelphia: F. A. Davis Company, 1903. Pp. xxvi-800.

In this very exhaustive volume the author has advanced entirely new theories of medicine. The ductless glands are brought to the fore as the vital organs of existence. "The adrenals are considered to be the key; not only to tissue respirations, but also to the functions of all other organs now classed as ductless glands." The heart, lungs, and other organs are merely subordinate and secondary to the workings of the ductless glands. As oxygen carriers the red corpuscles are considered of lesser consequence, the oxygen-laden adrenal secretion dissolved in the plasma being the all important factor. Direct connection is traced between the anterior pituitary body and the adrenals through the solar plexus, the splanchnic nerves, and the cervicothoracic ganglia of the sympathetic.

As the governing centre of the adrenals, the anterior pituitary body is held to be the chief organ. Overactivity of this body, by enhancing the adrenal secretion, increases metabolism, while depression of this organ lowers all vital processes.

The physiological purpose of the thyroid gland is "to sustain the functional efficiency of the anterior pituitary body up to a certain standard by means of its secretion, iodine in organic combination. The thyroid, the adrenals, and the pituitary body thus form the adrenal system."

The author concludes that infections of all sorts and poisoning are merely manifestations, varying in intensity, of over-activity or insufficiency of the adrenal system. Inherited susceptibility to tuberculosis, for example, is merely congenital adrenal insufficiency. The posterior pituitary body is the "chief functional centre of the nervous system," through which it controls the workings of all the organs. The white corpuscles, according to the researches of the author, "supply the organism with the agencies that combine with the oxidizing substance to insure the continuation of life, and the efficiency of all organic functions." The main cause of death during acute disease is the rapid use and insufficient replacement of the alkaline salts through their normal channel, the digestive tract.

The entire subject is gone over most carefully, and all the literature bearing in any way upon it is referred to. A very good summary is given in the preface of the book. So much wholly new material has been advanced that it is difficult to prophesy whether or not the author's theories will receive and retain general acceptance. He deserves the thanks of the medical profession for the tremendous amount of labor shown in this book, and we believe that it contains much valuable and suggestive material.

Manuel de bactériologie clinique. Par M. FUNCK, Chef du Laboratoire de bactériologie de l'Université de Bruxelles, etc. Avec sept planches coloriées hors texte, Deuxième édition. Bruxelles: Henri Lamertin, 1903. Pp. vii-239.

This little book contains an excellent and concise description of most of the important bacteria met with in clinical medicine. The idea of taking up the various secretions and excretions of the body, with the methods of collecting and examining them, is an excellent one and is well carried through. The bacteria of these fluids are well described, and the latest methods of isolating them are considered.

The chapter on technics and the preparation of media is very short and incomplete, the titration of the media being entirely omitted. The bacilli of dysentery are mentioned but very incompletely, and the work of American investigators is entirely left out. The cultural differences of typhoid and colon bacilli are much better described than in most modern short treatises on bacteriology, yet the paratyphoid group is not mentioned at all. The chapter on immunity is especially good and well worth the perusal of one who wishes to get a notion of the latest advances in this department of bacteriology.

The description of the technics of blood culture work and results obtained is very brief and very incomplete. The illustrations are excellent.

Essays on Clinical Medicine. By BEVERLEY ROBINSON, A. M., M. D. (Paris), Clinical Professor of Medicine at University and Bellevue Hospital Medical College, etc. Philadelphia: William J. Dornan, 1903. Pp. 2 to 171.

Dr. Robinson has done well to give us in book form some of his well conceived contributions to current medical literature. They will prove profitable reading for any practitioner.

Tuberculosis. Recast from Lectures delivered at Rush Medical College, in Affiliation with the University of Chicago. By NORMAN BRIDGE, A. M., M. D., Emeritus Professor of Medicine in Rush Medical College, Chicago, etc. Illustrated. Philadelphia, New York, and London: W. B. Saunders & Company, 1903. Pp. 3 to 302. (Price \$1.50.)

This little book contains a fairly correct statement of the facts referring to tuberculous disease. It gives much space deservedly to the treatment of the disease and especially to that part of it consisting in prophylaxis and the protection of the community. The book is very readable, its statements are plain and concise, and its style is clear.

BOOKS, ETC., RECEIVED.

The American Illustrated Medical Dictionary. For Practitioners and Students. A Complete Dictionary of the Terms Used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, and the kindred branches, including much collateral information of an encyclopedic character, together with new and elaborate tables of Arteries, Muscles, Nerves, Veins, etc.; of Bacilli, Bacteria, Micrococci, Streptococci; Eponymic Tables of Diseases, Operations, Signs and Symptoms, Stains, Tests, Methods of Treatment, etc., etc., By W. A. NEWMAN DORLAND, A. M., M. D. Editor of the American Pocket Medical Dictionary. Large Octavo, Pp. nearly 800, bound in full flexible leather. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Price, \$4.50 net; with thumb index, \$5.00 net.

A Text-Book of Diseases of Women. By BARTON COOKE HIRST, M. D., Professor of Obstetrics in the University of Pennsylvania; Gynecologist to the Howard, the Orthopaedic, and the Philadelphia Hospitals. With 655 Illustrations, many of them in Colors. Philadelphia, New York, and London: W. B. Saunders & Company, 1903. Pp. 683. (Price, \$5.00 net).

A Text-Book of Obstetrics. By BARTON COOKE HIRST, M. D., Professor of Obstetrics in the University of Pennsylvania. Pp. 900, with 746 Illustrations, 39 of them in Colors. Fourth Edition, Enlarged and Thoroughly Revised. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, \$5.00 net; sheep or half morocco, \$6.00 net.

A Text-Book of Clinical Anatomy. For Students and Practitioners. By DANIEL N. EISENDRATH, A. B., M. D., Clinical Professor of Anatomy in the Medical Department of the University of Illinois (College of Physicians and Surgeons); Attending Surgeon to the Cook County Hospital, Chicago, etc. Pp. 515, with 153 Illustrations, a number in Colors. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, \$5.00 net; sheep or half morocco, \$6.00 net.

Clinical Examination of the Urine and Urinary Diagnosis. A Clinical Guide for the Use of Practitioners and Students of Medicine and Surgery. By J. BERGEN OGDEN, M. D., formerly Instructor in Chemistry, Harvard University Medical School, Boston; Assistant in Clinical Pathology, Boston City Hospital, etc. Second Revised Edition. Pp. 418, Illustrated, including 11 Plates, 9 of them in Colors. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, \$3.00 net.

Year Book of the Medical Association of the Greater City of New York. June, 1903. Pp. 200.

Miscellany.

Macaulay on the Laudator Temporis Acti.—
 "We too shall, in our turn, be outstripped, and in our turn be envied. It may well be, in the twentieth century, that the peasant of Dorsetshire may think himself miserably paid with fifteen shillings a week; that the carpenter at Greenwich may receive ten shillings a day; that labouring men may be as little used to dine without meat as they now are to eat rye bread; that sanitary police and medical discoveries may have added several more years to the average length of human life; that numerous comforts and luxuries which are now unknown, or confined to a few, may be within the reach of every diligent and thrifty workingman. And yet it may then be the mode to assert that the increase of wealth and the progress of science have benefited the few at the expense of the many, and to talk of the reign of Queen Victoria as the time when England was truly merry England, when all classes were bound together by brotherly sympathy, when the rich did not grind the faces of the poor, and when the poor did not envy the splendour of the rich."—
 (Macaulay's *History of England*, vol. i, p. 334.)

Official News.

Public Health and Marine Hospital Service
Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the surgeon-general, Public Health and Marine Hospital Service, during the week ending October 3, 1903:

Place.	Smallpox—United States	Cases.	Deaths.
Alabama—Mobile	Sept. 19-26	4	
California—Los Angeles	Sept. 12-19	2	
Illinois—Belleville	Sept. 19-26	3	
Illinois—Chicago	Sept. 19-26	2	
Illinois—Danville	Sept. 19-26	1	
Maine—Oldtown	Sept. 19-26	8	
Maryland—Baltimore	Sept. 19-26	1	
Massachusetts—Fall River	Sept. 19-26	2	
Michigan—Detroit	Sept. 19-26	1	
Michigan—Port Huron	Sept. 19-26	3	
Minnesota—Crow Wing County	Sept. 14-21	23	
Minnesota—Stevens County	Sept. 14-21	3	
Minnesota—Stearns County	Sept. 14-21	1	
Mississippi—Natchez	Sept. 13-20	1	
New York—Niagara Falls	Sept. 19-26	2	
Ohio—Cincinnati	Sept. 18-25	1	
Ohio—Cleveland	Sept. 19-26	1	
Pennsylvania—Altoona	Sept. 19-26	1	
Pennsylvania—Butler	Sept. 12-19	1	
South Carolina—Charleston	Sept. 19-26	2	
Tennessee—Memphis	Sept. 19-26	3	
Wisconsin—Milwaukee	Sept. 19-26	2	

Smallpox—Insular.

Philippines—Manila	Aug. 1-15	1	1
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Smallpox—Foreign.

Austria—Prague	Sept. 5-12	1	
Belgium—Brussels	Sept. 5-12	1	
Brazil—Pernambuco	Aug. 1-15	3	
Brazil—Rio de Janeiro	Aug. 23-30	46	20
China—Shanghai	Aug. 8-15	2	
Colombia—Barranquilla	Sept. 6-13	1	
Great Britain—Bradford	May 30-June 20	51	4
	June 20-Aug. 1	42	4
	Aug. 1-29	46	
	Aug. 29-Sept. 12	16	1
Great Britain—Dundee	Sept. 5-12	3	
Great Britain—London	Sept. 5-12	9	
Gt. Britain—Newcastle-on-Tyne	Sept. 5-12	5	
Great Britain—South Shields	Sept. 5-12	1	
India—Bombay	Aug. 24-Sept. 1	3	
Netherlands—Amsterdam	Sept. 12-19	5	
Russia—Moscow	Aug. 29-Sept. 5	1	1
Russia—Odessa	Aug. 29-Sept. 5	5	
Russia—Warsaw	Aug. 22-29	1	
Turkey—Smyrna	Aug. 31-Sept. 6	40	

Yellow Fever—United States.

Texas—Laredo	Sept. 21-28	13	3
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Colombia—Panama	Sept. 14-21	2	1
Mexico—Vera Cruz	Sept. 12-19	35	19
Venezuela—Cagua	Sept. 19		Epidemic.
Venezuela—San Felipe	Sept. 19		Epidemic.
Philippines—Manila	Aug. 1-15	32	24
Philippines—Provinces	Aug. 1-15	1,991	1,492
Cholera—Foreign.			
China—Shanghai	Aug. 8-15	2	
India—Calcutta	Aug. 15-22	18	
India—Madras	Aug. 15-22	1	
Plague—Foreign.			
Africa—Cape Colony	July 26-Aug. 8	1	
Brazil—Rio de Janeiro	Aug. 23-30	19	19
China—Hongkong	Aug. 8-15	13	11
Egypt—Alexandria	Aug. 22-28	7	6
Egypt—Damietta	Aug. 22-28	7	5
India—Bombay	Aug. 24-Sept. 1	79	
India—Calcutta	Aug. 21	29	
New Caledonia	Aug. 29	23	17

Public Health and Marine Hospital Service:

Official List of Changes in the Stations and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the 14 days ending October 1, 1903:

- ACHENBACH, J., Pharmacist. Granted 7 days' leave of absence from September 9, 1903, under paragraph 210 of the regulations.
- ALTREE, G. H., Acting Assistant Surgeon. Granted leave of absence for 18 days, on account of sickness.
- BAILHACHE, PRESTON H., Surgeon. Five days' leave of absence from September 5, 1903, under paragraph 189 of the regulations. To proceed to Trenton, and Perth Amboy, October 1st, for special temporary duty.
- BECK, J. E., Pharmacist. Granted leave of absence for 30 days from September 14th.
- BROOKS, S. D., Surgeon. To proceed to Savannah quarantine as inspector.
- BURFORD, HUGH, Acting Assistant Surgeon. Granted leave of absence for 30 days from September 20th.
- CARMICHAEL, D. A., Surgeon. Relieved from temporary duty in the Hygienic Laboratory, and directed to rejoin his station at Vineyard Haven, Mass.
- CUMMINGS, H. S., Passed Assistant Surgeon. To proceed to San Francisco, Cal., for special temporary duty.
- EBERSOLE, R. E., Assistant Surgeon. To proceed to New Orleans, La., and report to medical officer in command. To proceed to Houston, Texas, for special temporary duty.
- EHEMENDIA, D. M., Acting Assistant Surgeon. Granted extension of leave of absence, on account of sickness, for 7 days from September 3d.
- GARDNER, C. H., Passed Assistant Surgeon. To proceed to Boston, Mass., for special temporary duty.
- GEDDINGS, H. D., Assistant Surgeon-General. To proceed to Paris, France, to represent the United States at an International Sanitary Conference October 10th. September 24, 1903. Upon the adjournment of an International Sanitary Conference at Paris, France, to proceed to Berlin, and Frankfort, Germany, and London, England, for special temporary duty.
- GOODMAN, F. S., Pharmacist. Granted 23 days' leave of absence from September 10th. To proceed to Washington, D. C., for special temporary duty.
- GUIERAS, G. M., Surgeon. To proceed to Laredo, Texas, for special temporary duty.
- HALLETT, E. E., Acting Assistant Surgeon. Granted leave of absence for 3 days from September 26th.
- HANRATH, F. E., Pharmacist. Granted leave of absence for 21 days from September 7th.
- HOBBS, W. C., Assistant Surgeon. Granted leave of absence for 7 days from August 22, 1903.
- LUMSDEN, L. L., Passed Assistant Surgeon. Relieved from duty at Vineyard Haven, Mass.; directed to proceed to New Orleans, La., and report to medical officer in command for duty and assignment to quarters.
- MATHEWSON, H. S., Passed Assistant Surgeon. Granted leave of absence for 45 days from September 22d.
- MORRIS, G. A., Pharmacist. Granted leave of absence for 20 days from September 14th.
- MURRAY, R. D., Surgeon. To proceed to New Orleans, La., for special temporary duty. September 23, 1903. To proceed to Laredo, Texas, for special temporary duty. Reassigned to duty at Key West, Florida, effective May 15th.

PECKHAM, C. T., Surgeon. To proceed to Boston, Mass., for special temporary duty. Bureau order of September 28, 1903, directing Surgeon C. T. Peckham to proceed to Boston, Mass., for special temporary duty, revoked.

PURVIANCE, GEORGE, Assistant Surgeon-General. Granted leave of absence for 10 days from September 21st. September 23, 1903.

RICHARDSON, S. W., Pharmacist. Granted 10 days' leave of absence from September 20th.

ROSENAU, M. J., Passed Assistant Surgeon. Reassigned as Director of the Hygienic Laboratory, effective April 27th.

SCOTT, E. B., Pharmacist. Granted leave of absence for 30 days from September 5th.

SOUTHARD, F. A., Pharmacist. Granted leave of absence for 3 days from September 28, 1903, under paragraph 210 of the regulations.

STEGER, E. M., Assistant Surgeon. To proceed to New York, N. Y., and report to Surgeon G. W. Stoner, Immigration Depot, for duty.

STIER, C., Pharmacist. To proceed to Key West, Fla., and report to acting assistant surgeon in temporary charge for duty.

VOGEL, C. W., Assistant Surgeon. Granted leave of absence for 2 days from September 17, 1903, under paragraph 191 of the regulations.

VON EZDORF, P. H., Passed Assistant Surgeon. To proceed to Laredo, Texas, and report to Surgeon G. M. Guiteras for special temporary duty.

WALERIUS, M., Pharmacist. To proceed to Laredo, Texas, and report to Surgeon G. M. Guiteras for special temporary duty.

WELDON, W. A., Acting Assistant Surgeon. Granted leave of absence for 7 days from August 31, 1903, under paragraph 191 of the regulations.

WHITE, J. H., Surgeon. Granted extension of leave of absence for 10 days.

WHITE, M. J., Passed Assistant Surgeon. Three days' leave of absence, granted by Bureau telegram of August 23d, revoked.

WOODS, C. H., Pharmacist. To proceed to St. Louis, Mo., and report to medical officer in command for temporary duty.

Appointment.

EDWARD M. STEGER, of Texas, commissioned as assistant surgeon (recess) in the Public Health and Marine Hospital Service.

Boards Convened.

Board convened to meet at Washington, D. C., September 25, 1903, for the purpose of making physical examinations of candidates for appointment in the Revenue Cutter Service. Detail for the board—Assistant Surgeon-General W. J. PETTUS, chairman. Assistant Surgeon A. J. McLAUGHLIN, recorder.

Board convened to meet at the Purveying Depot, New York, N. Y., October 5, 1903 for the physical examination of officers of the Revenue Cutter Service. Detail for the board—Surgeon H. W. SAWTELLE, chairman. Passed Assistant Surgeon A. C. SMITH, recorder.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending October 3, 1903:

BOGAN, F. M., Assistant Surgeon. Detached from the Navy Yard, Washington, D. C., and ordered to the *Chauncey* for duty with the First Torpedo Flotilla.

DOUGLAS, S. W., Pharmacist. Detached from the Naval Proving Ground, Indian Head, Md., and ordered to the Navy Yard, Portsmouth, N. H.

GRIFFITHS, S. H., Surgeon. Detached from the Marine Barracks, Washington, D. C., and ordered to the *Minneapolis*, and to duty as Fleet Surgeon of the Atlantic Training Squadron.

PUGH, W. S., JR. Appointed an assistant surgeon, with the rank of lieutenant, junior grade, from September 23, 1903.

STONE, M. V., Assistant Surgeon. When discharged from treatment at the Naval Hospital, New York, ordered home and granted sick leave until December 31, 1903.

WILLIAMS, R. B., Assistant Surgeon. Detached from the First Torpedo Flotilla and ordered to the Naval Hospital, Norfolk, Va.

Births, Marriages, and Deaths.

Born.

LONDON.—In Kansas City, Missouri, on Sunday, September 27th, to Dr. and Mrs. S. F. Lapdon, a daughter.

Married.

ANDERSON—TATUM.—In Richmond, Virginia, on Wednesday, September 23d, Dr. Meriweather Lewis Anderson and Miss Annie Tatum.

CHADWICK—PECHELL.—In Elizabeth, New Jersey, on Thursday, October 1st, Dr. Dewitt C. Chadwick, of Washington, and Miss Alice Pechell.

CLOUTIER—TERREAU.—In Quebec, Canada, on Monday, September 28th, Dr. N. Cloutier and Miss Eleonora Terreau.

CORNELL—POILLON.—In New York, N. Y., on Saturday, October 3d, Dr. Van Alstyne H. Cornell and Miss Julia Aline Poillon.

COVEY—KEEN.—In Colorado Springs, Colorado, on Thursday, September 24th, Mr. Hamilton S. Covey and Dr. Emma J. Keen.

COTTON—KEYS.—In Baltimore, Maryland, on Saturday, September 26th, Dr. Harry Andrews Cotton, of Boston, and Miss Alice Della Keys.

DESAULNIERS—DUCHESNEAU.—In Montreal, Canada, on Wednesday, September 16th, Dr. Merrill Desaulniers and Miss Laura Duchesneau.

GRAY—TERROUX.—In Montreal, Canada, on Tuesday, October 6th, Dr. H. R. Dunstan Gray and Miss Marie Terroux.

MCBRIDE—GALVIN.—In New York, N. Y., on Tuesday, September 29th, Dr. Andrew F. McBride and Miss Kathleen Galvin.

PANCOAST—ROSS.—In Baltimore, Maryland, on Thursday, October 1st, Dr. Omar Borton Pancoast and Miss Joe Anna Ross.

SCOLLAY—MAXWELL.—In Brooklyn, N. Y., on Saturday, September 26th, Mr. Ulysses Grant Scollay and Dr. Marie V. Maxwell.

STREETT—BALDWIN.—In Baltimore, Maryland, on Thursday, October 1st, Dr. H. Hayward Streett and Miss Olivia S. Baldwin, daughter of Dr. A. S. Baldwin.

VIOLA—CAMPBELL.—In New York, N. Y., on Sunday, September 27th, Dr. Emanuel Viola and Miss Kate Campbell.

VOGEL—LEEMING.—In New York, N. Y., on Monday, October 5th, Dr. Karl Max Vogel and Miss Winifred Claxton Leeming.

Died.

ALLEN.—In Philadelphia, Pennsylvania, on Saturday, September 26th, Dr. Joshua Allen, in the seventy-fourth year of his age.

AMICK.—In Philadelphia, Pennsylvania, on Saturday, September 26th, Dr. John H. B. Amick, in the fifty-third year of his age.

BOWERS.—In Bayonne, New Jersey, on Saturday, September 26th, Dr. Clarence G. Bowers, in the twenty-sixth year of his age.

BOYD.—In Los Angeles, California, on Monday, September 21st, Dr. Mary A. Boyd.

DOUGHTON.—In Baltimore, Maryland, on Thursday, September 24th, Dr. George Doughton, in the forty-fourth year of his age.

HAVEN.—In Boston, Massachusetts, on Sunday, September 27th, Dr. George Haven.

KREITZER.—In Philadelphia, Pennsylvania, on Thursday, September 24th, Dr. Michael C. Kreitzer, in the seventy-eight year of his age.

SHEPARD.—In Cleveland, Ohio, on Monday, September 28th, Dr. T. P. Shepard, in the thirty-first year of his age.

SWEETING.—In Brooklyn, N. Y., on Sunday, October 4th, Dr. Charles Blackwell Sweeting, in the fifty-ninth year of his age.

WINN.—In Kirkwood, Missouri, on Wednesday, September 23d, Dr. J. B. Winn, in the eighty-ninth year of his age.

New York Medical Journal AND Philadelphia Medical Journal. CONSOLIDATED.

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Original Communications.

SOME ASPECTS OF GENITOURINARY DISEASE, FROM A GENERAL PRACTITIONER'S POINT OF VIEW.*

By WILLIAM H. THOMSON, M. D., LL. D.,

NEW YORK,

PHYSICIAN TO ROOSEVELT HOSPITAL.

We are accustomed to speak of the genitourinary tract as beginning with the kidneys. But I am not sure whether this statement is correct, and whether we should not also include the suprarenal capsules, for the reason that, from the very outset of any form of true nephritis, a remarkable change occurs in the entire vascular system.

THE HIGH TENSION PULSE OF NEPHRITIS DUE TO AN AGENT, SIMILAR TO ADRENALIN, IN THE BLOOD, WHICH CAUSES KIDNEY SHRINKAGE AND DIMINISHED UREA EXCRETION.

The arteries all over the body become much contracted, and especially the arterioles, with a consequent great rise of blood pressure. The pulse becomes characteristically hard and incompressible. Now, this is no temporary rise of blood pressure, but persists with little change for days and months. Attention, however, has not been sufficiently directed to the significance of its very early occurrence; and hence the rise of blood pressure in kidney diseases has been sometimes erroneously explained as due chiefly to endarteritis causing alterations in the arterial walls, thus narrowing the lumen of those vessels. Such changes do occur in time, and atheromatous degeneration follows, on the principle that atheroma develops where there is most strain; but all these are secondary to the great ischæmia from contraction of the vessels themselves long before their walls have become damaged. At this stage, along with the high tension pulse, the arteries are found to be very small and perfectly smooth to palpation.

The effects of this universal arteriole contraction are necessarily soon felt by the heart, so that

* Presented before the second annual meeting of the American Urological Association, New Orleans, May 8, 1903.

it hypertrophies from the increased labor thrown upon it, and, in some cases, due solely to this condition, acute cardiac dilatation occurs with very serious symptoms.

But another effect of this agent circulating in the blood is to cause a great shrinkage of the kidneys themselves, with a consequent marked diminution of their power to excrete urea.

Now, all these effects on the circulatory apparatus are exactly similar in kind to those caused by an intravenous injection of adrenalin, the active principle of the internal secretion of the suprarenal capsules. Whether nephritis, therefore, directly stimulates the adjacent suprarenals to increased secretion, so as to produce in the patient a condition like a continuous overdosing with adrenalin, or whether such a poison is formed in the kidney itself, cannot yet be determined; but as showing how strikingly similar the clinical symptoms of these cases are to those recorded in experimental researches on the suprarenal secretion, we need only cite the statements of Schaeffer, who found that, along with the extreme rise in the blood pressure, one of the most striking results of the intravenous injection of suprarenal extract was the extraordinary shrinkage of the kidney in the oncometer beyond any other measure to produce a like result. It is also not necessary to postulate that the daily amount generated of this agent must be very great to account for the high tension of the pulse which continues in kidney disease for months together, because Schaeffer and Oliver have shown that nothing is so surprising about adrenalin as the minuteness of the dose which will act on the whole vascular system, $\frac{1}{800}$ of a grain being sufficient to affect the pulse of a healthy man.

ACONITE THE BEST VASODILATOR AND RESTORER OF THE UREA OUTPUT.

I will cite only one case, out of many similar in my experience, of the dangers which this condition of arterial contraction by itself may give rise to, on account of a remedy which I believe to be very efficacious in counteracting them. I was called by Dr. Alexander Travis, of New York, in

consultation to a lady over sixty years of age, who with very few antecedent symptoms was suddenly overcome by an attack of syncope, due to acute dilatation of the heart. For weeks together afterwards she could not have her head raised or be turned in bed without feeling as if she would faint away. The apex impulse was imperceptible, and the first sound there well nigh inaudible; and though I frequently saw her in that interval and recommended a variety of cardiac stimulants, with one preparation after another of the nitrites as vasodilators, yet the heart failed to respond and her arteries remained small with a pulse of very high tension. Her physician constantly made examinations of her daily elimination of urea, which would not rise above 8 grammes in the twenty-four hours, until at last, when serious uræmic symptoms had become very pronounced, I advised that she be put upon five drops of the tincture of aconite every three hours. The effect of this drug is stated by Dr. Travis in a note to me as follows:

In a few days improvement in all her symptoms was perceptible, her digestion became better, mental and nervous symptoms disappeared, the arterial tension disappeared, the daily output of urea rose from 120 grains to 480 grains (as if the kidneys were making up for lost time), the heart action improved, the apex impulse became perceptible and slowly increased in force, and the pulse became fuller. Within a week the patient sat up supported by a bed rack for ten minutes, without a marked change in the pulse. The aconite was continued in the same dose for six months, the patient becoming able to sit out of bed from six to eight hours daily, and going out to drive. Twice in that time the dose of aconite was reduced, but the return of high tension and diminution of the urea output to 200 grains daily, with return of symptoms of cardiac weakness caused the resumption of the original dosage. At the end of six months the aconite was discontinued, and the nitrites were substituted for it for one month. Cardiac weakness and high tension developed again, and the urea fell to 150 grains daily. Aconite was again substituted for the nitrites, and again the heart action and the pulse improved, the arterial tension diminished and the urea increased to 450 grains. After four months more, the aconite was discontinued, as vasodilators seemed to be no longer needed. The patient now is much improved in strength and appearance, and has resumed her social engagements.

To be brief, I may say that in this case I judged that the heart had become exhausted by laboring against the continued arterial contraction caused by incipient interstitial nephritis, and that, as I regard aconite as much the best vasodilator which we possess, and much more persistent in its action on the vessels than any of the nitrites, so I ex-

pected that the heart would gain more by the rest which the consequent arterial dilatation would afford, than it would suffer from the sedative action of the aconite upon itself. With the relief of the arterial tension, I also expected an increase of elimination by the kidneys of urea, and the event proved that I was correct in both these anticipations. Though the cardiac weakness was so extreme when the aconite was first given that the patient could not be turned in bed without changing color, yet the removal of the strain upon the heart from the contracted vessels caused the aconite to appear as a heart stimulant instead of a depressant, while along with the change the kidneys promptly began to excrete an excess of urea. My practice, therefore, is to prescribe aconite in all kidney diseases when the pulse tension is high, though when general endarteritis has led to extensive obliteration of the arterioles, particularly in the aged, we cannot expect, of course, to dilate vessels which have practically ceased to exist, and aconite then has to be given with discrimination, limiting its administration to times when the pulse is rapid as well as of high tension, and discontinuing it when the rate falls to 80.

CASES OF RENAL INSUFFICIENCY DUE TO GASTRO- INTESTINAL DERANGEMENT: TREATMENT.

Speaking generally, I would remark that in our examinations of urine we are apt to direct our attention too exclusively to discovering what ought not to be found in it. Of course, it is always important to determine whether or not there is albumin, or blood, or pus, or casts, or sugar, or any of the rest of the ingredients whose presence is always abnormal, but our duty by no means should stop there. We should also, as a matter of routine, particularly with a new patient, endeavor to find out whether what ought to be there is present in healthy proportion or amount. I have quite a list now of patients who have their urine frequently examined by my direction, and about whom for months the reports from the laboratory have been—no albumin, no blood, no casts, no sugar, etc., and yet all these patients are in poor health, chiefly on account of their kidneys.

The trouble with them is that their elimination of urea is always too low. Some of them for weeks and months do not excrete more than half the amount of urea which they ought to, and some not much more than a third.

Now, it is in just such patients that we find the most puzzling variety of nervous symptoms, whether mental, sensory, motor, or circulatory. I have had men who looked quite healthy, and who had passed life insurance examinations, consult

me for nervous symptoms of the most diverse and even contradictory kind, and have found on examination that they were habitually not eliminating half the daily output of urea which they should. Now, a similar disorder in women is almost always mistaken for hysteria. I have one patient, a young woman, whose case I have observed very carefully for three years. A distinguished neurologist was sure she was a hysteric. I was equally sure that she was not, because for two years she had diabetes insipidus daily up to 1 o'clock p. m., when she passed great quantities of pale urine of sp. gr. 1001 to 1003. In the evening her urine was uniformly normal in color and in specific gravity. During the morning she was always in a wretched, nervous state. I felt that if she would only pass the same quantity of urea per ounce for the rest of the day which she usually did in the evening, she would be well; but the total output for twenty-four hours scarcely rose long over 9 grammes a day for two years. That she had no organic kidney disease was rendered almost certain by a daily evening healthy excretion. Something prevented the kidneys working right in the early morning, which she did not begin to recover from till late in the afternoon. I was sure that the trouble was of gastrointestinal origin, and by persistence in so treating it finally overcame it.

I have several other female patients whose clinical histories might be called more or less duplicates of hers, and who might easily be regarded as suffering *only from hysteria*. But in order to test this question, I have made extensive observations on the elimination of urea in patients with unmistakable hysteria, and found that, as a class, the elimination of urea is no different in them than in subjects of other nervous complaints. Hysteria as such, therefore, is not due to, or at least accompanied by, deficient excretion of urea.

As to the ætiology of these examples of functional renal inadequacy, I would venture upon a hypothesis, suggested by some facts recently adduced in connection with the relation of the kidneys to the formation of urea. Rose Bradford was the first to show that the more of the kidney substance was experimentally cut away, the more urine and the more urea would be excreted. Removal of two thirds of the kidney substance in dogs did not cause death, but if three fourths were removed, death followed in from one to six weeks, through asthenia, accompanied with great tissue waste, but not from uræmia as ordinarily manifested. An exactly similar mode of dying occurs in man from sudden obstructive suppression of urine by a calculus in the ureter, as I myself observed in a patient who lived till the ninth day

after his urine was thus suppressed, and who died from pure weakness without a symptom of uræmia so-called. In dogs with only one fourth of the kidney substance left, great polyuria occurs with such an increase of urea that it would seem as if the entire muscular tissues were disintegrating. Bradford ascribes this remarkable change to the absence of an internal secretion of the kidneys which regulates the production of urea, and this surmise is supported by the experiments of Vitzou, who showed that blood from the renal vein had a great effect in prolonging the life of dogs whose kidneys had been removed. Ordinarily, total removal of the kidneys is fatal to dogs in from twenty-four to thirty-six hours; but, by injections of blood from the renal vein, their life would be prolonged to even 100 hours, in one case it was so prolonged to 164 hours.

On the other hand, observations go to prove that there is a close relationship between the alimentary canal and urea elimination by the kidneys, because the intake of food at once stimulates the kidneys to excrete urea, for its output during the first hour after a meal is more than double that in a similar time after three hours interval. On that account, as well as from the frequent clinical experience of the evil effects of gastrointestinal disturbance upon diseased kidneys, it seems quite conceivable that certain digestive derangements inhibit the elimination of urea by the kidneys, just as normally, the intake of food stimulates it.

In all such patients, the tension of the pulse is low instead of high, and one peculiarity about them is that they feel worse in the mornings and better in the evenings, as if they suffered from some nocturnally generated poison in the blood. Of course, neither aconite nor any other vasodilator would avail to increase the urea elimination in them, for their kidneys are not in the shrunken state which a poison like adrenalin would occasion, as the quality of their pulse shows. Instead of that, a biweekly dose of blue pill, alternating with the pulv. glycyrrhizæ co. and the steady administration of intestinal antiseptics, along with a regulation of the diet, will in time relieve them from their multitudinous nervous symptoms, and more surely than the administration of nervines. Among the intestinal remedies I have found ten grain doses of sodium or ammonium benzoate, with the same of phenol bismuth, or salol with castor oil in shellac-covered capsules, very serviceable.

Our knowledge of the physiological functions of the kidneys, however, is yet too imperfect to enable us to trace all the accompaniments of the derangements in their working to their source.

Thus, the nervous symptoms in the class of patients just alluded to cannot be ascribed alone to their failure to eliminate enough urea, for I have a patient who, following an attack of hæmorrhagic nephritis three years ago, has for two years shown only deficiency of urea, amounting to an average of but 8 to 10 grammes *per diem*, along with no other sign, either chemical or microscopical, of kidney disease, and yet she has no nervous troubles of any kind and always reports herself as quite well, particularly if the weather permits a daily ride in her carriage. On the other hand, to illustrate how uniformly such examinations of urinary excretions should be made, I had a lady at my office lately whose nervous symptoms I ascribed to the fact reported from the laboratory that her excretion of urea came to a little less than six grammes a day, when it ought to have been at least eighteen. This patient was directly followed by a slender looking lady who complained of much the same chronic weariness, pains, nervousness, and insomnia, as her predecessor. Instead of deficiency, however, the examination report was of great excess of urea, amounting to over 33 grammes of urea a day, equivalent to over 40 grammes in a man of her age. This patient had no febrile, or any other, complaint to account for the urea excess, and she belongs to the class of those obscure cases of urea diabetes, so to speak, the pathology of which is just as obscure as that of diabetes mellitus itself. Curiously enough, I have found that these patients cannot digest starchy food well, though they do not at any time show sugar in the urine.

ACUTE SEPTIC INFECTIONS OF THE KIDNEYS IN THE COURSE OF CHRONIC NEPHRITIS: TREATMENT.

For the purpose of indicating some points in treatment, I would now briefly allude to certain sudden emergencies which occur in practice in an important class of cases, in which serious kidney disease is already present. A uræmic convulsion is sometimes the first announcement to anybody that that person has Bright's disease. Post mortem we find that they had long been carrying diseased kidneys with them, but with only moderate accompanying symptoms which they had ascribed to biliousness, etc. Others, on the contrary, have long been known to have kidney disease, but they have got along fairly well for many months, or even attended to business, when unexpectedly serious symptoms have developed which have soon carried them off.

I believe that in the majority of such patients a new element has entered into the case, the recognition of the nature of which we owe to recent advances in pathology, and that new element is

a septic invasion of the kidneys by bacteria, of which the commonest form is the colon bacillus. In chronic interstitial nephritis, the process seems to be this: A patient with cirrhused kidneys, who has had polyuria for months, begins to pass much less urine, or perhaps very little. He is then entering upon virtually the same condition as a case of severe acute nephritis. Soon, he has a convulsion or becomes comatose, or he has an attack in the night of uræmic asthma, with œdema of the lungs and pleural effusion, or an attack of vomiting and diarrhœa. Thereupon the kidneys stop secreting altogether, and death follows. At the autopsy, the kidneys are found to be acutely inflamed, and stuffed with microorganisms of various kinds, but most frequently with the colon bacillus.

I feel sure that I have repeatedly in hospital and in consultation practice warded off the worst results from threatening symptoms, such as fever, mental clouding, Cheyne-Stokes's breathing, vomiting, and the like, in these patients with cirrhused kidneys, by a prompt mercurial cathartic, followed every two or three hours by ten grains of urotropine, combined with sodium benzoate. In my experience urotropine does not cause untoward symptoms if sodium benzoate is given with it, while it is far the most certain bactericide which we possess for infected kidneys. Hot saline rectal irrigation is also here as serviceable as in scarlatinal suppression.

Speaking of bactericides, I should like to recommend resorcin as in my experience the best local disinfectant for the bladder, particularly in the cystitis accompanying enlarged prostate. I use it in the strength of a grain to the ounce for washing out the bladder, leaving an ounce or so of the solution in the bladder at each sitting.

A PERINEAL PAD RECOMMENDED FOR CHRONIC SPERMATORRHOEA.

In conclusion, I would ask to refer to the subject of spermatorrhœa. We are prone to regard many patients who come to us for this complaint, as cases of male hysteria induced by reading quack advertisements. Undoubtedly, most of them are the victims of a morbid imagination, but with some it is far otherwise, as they indeed suffer from a real disease, which is both deplorable in its results and very difficult to treat. There can be but little doubt that just as the body is taking on the change to puberty in boys from twelve to fifteen years of age, the practice then of excessive masturbation may disastrously weaken for years, if not for life, the tone of the lumbar centres of the spinal cord by inducing an extreme reflex excitability of the whole system of genital nerves. I

had to treat a case of this kind in a physician, who could not have a defecation without passing what was repeatedly proved by the microscope to be semen. Marriage did not at all relieve him of his disease. He had a constant sense of uneasiness with twitchings in the perinæum whenever he sat for any length of time. He had a distressing insomnia from a kind of spinal epilepsy, with starting of the legs, less often of the arms, and also of the genitals, with palpitation, just as he fell asleep. He became greatly emaciated, and had constant phosphaturia; and finally, notwithstanding consultations with many eminent authorities both here and abroad, he was reduced to such a wretched condition of body and of mind that he could not carry on his business. I mention his case because of his virtual cure by wearing an apparatus which I have devised, and the good effects of which in similar cases I think justify my alluding to this subject now. This simple apparatus consists of a band four inches wide buckled round the waist, and kept in place by suspenders over the shoulders. From the middle of this band behind a strap passes till it divides into two strong straps in the perinæum at the scrotum, and these then pass up to be fastened by buckles to the waistband in front. Meantime, a firm cylindrical pad, two inches in diameter and covered with chamois skin, is attached to the strap in the perinæum, this pad being of sufficient length to support the whole perinæum; when worn, it should be drawn so tightly that the sense of pressure should be equal to that of a hernia truss. After wearing this for a few weeks, this patient's nocturnal startings ceased, his sleep improved, and in the course of a year his general condition was greatly changed for the better. In three years he gained 60 pounds in weight, and ever since has continued in active practice; but he still finds that if he leaves the pad off, he soon begins to feel a sense of weakness with irritability of the parts. From my experience, also, I would recommend this apparatus for too frequent nocturnal emissions, as this trouble is also largely due, in my opinion, to the same weak reflex excitability which keeps up diurnal losses.

Medical Consultation in the Seventeenth Century.—"There were coffee-houses where the first medical men might be consulted. Doctor John Radcliffe, who, in the year 1685, rose to the largest practice in London, came daily, at the hour when the Exchange was full, from his house in Bow Street, then a fashionable part of the capital, to Garraway's, and was to be found surrounded by surgeons and apothecaries, at a particular table."—(Macaulay's *History of England*, vol. i, p. 288.)

THE VALUE OF ALBUMINURIA IN DIFFERENTIATING PYELITIS FROM CYSTITIS.

By THOMAS R. BROWN, M. D.,
BALTIMORE.

As is well known, there is a large number of cases of pyelitis in which there are no symptoms whatsoever, or in which the symptoms are so vague and indefinite that it is not possible to make a diagnosis therefrom. In such cases the diagnosis must be made from a careful examination of the urinary tract or of the urine. In the hands of the specialist the diagnosis is frequently made by the cystoscopic examination, and the demonstration of the ureteral orifice pathologically changed, thickened, surrounded by ulcerations, while frequently purulent or bloody urine will be seen being discharged from the orifice; in all cases, of course, ureteral catheterization will clear up the diagnosis.

In the hands of a few, cryoscopy, that is, the determination of the freezing point of the urine, will give valuable aid in reaching a diagnosis of pyelitis. In the hands of the great majority of practitioners, however, neither of these methods can be used, and unless we have a simpler means of reaching a diagnosis the condition will often be unrecognized for a long period of time, especially when complicated with cystitis, as is often the case. We have, we think, in the examination of the urine, especially with reference to the grade of pyuria and of albuminuria, a very satisfactory and simple means of differentiating pyelitis and cystitis, and one which, in the great majority of cases, will give accurate results. During the past three years we have been examining with great care the urine in all cases of infection of the urinary tract, whether of bladder, ureter, or kidney; and from these observations we have definitely concluded that pyuria, due to a cystitis, even if of high grade, is associated with but a small amount of albumin if the urine is examined immediately after catheterization, if the pyuria is not accompanied by hæmaturia. On the other hand, in all cases of pyelitis, even if the grade of pyuria is low, there is always, or at least almost always, a considerable quantity of albumin present. In some cases, of course, the presence of casts and epithelial cells from the renal pelvis may help us in arriving at a correct diagnosis, but in the vast majority of cases no help can be derived from the microscopical examination, and we must depend largely upon other means for arriving at a correct diagnosis. In the determination of the relationship between the grades of pyuria and albuminuria there is, as we have said before, a ready and simple means of differentiating pyelitis and cystitis.

We have not attempted to determine the albumin

quantitatively, but have based our conclusions on the less exact method of judging by the denseness of the precipitate of albumin by heat and acetic acid, which method we have employed in all cases.

Rosenfeld, however (*Berliner klinische Wochenschrift*, 1898, No. 30), states that in the most severe cases of cystitis the albumin present is hardly ever more than 0.1 per cent., while in pyelitis it is often 0.3.

In regard to the relationship between albuminuria and hæmaturia we have done but little work, as in all our cases the number of red blood corpuscles present in the urine was so few as to be of no practical importance; but Goldberg (*Berliner klinische Wochenschrift*, 1895, p. 1071) from his observations concludes that if the ratio of albumin in percentage to the number of red blood corpuscles per c.mm. is greater than 1 to 30,000, there is a true albuminuria; while, if less than 1 to 30,000, the albumin present is entirely accounted for by the red blood corpuscles and serum mixed with the urine.

We wish to report nine cases in which the diagnosis of pyelitis was either made or rendered probable by the examination of the urine and the discovery of an amount of albumin too great to be accounted for by vesical infection, which in almost all the cases was also present.

CASE I.—Miss R. Five years before being seen by us, when in a nervous and overworked condition, complained of ardor urinæ, frequent and burning micturition; for this she was treated locally, but the symptoms, instead of getting better, became worse, and she began to pass pus in large amounts; in fact, from the first the condition became steadily worse, so that at the time when she was first seen by us her life was practically unbearable. The bladder on examination was found to be extremely contracted, holding but 15 c.cm. There had been no definite symptoms of pyelitis, although for one year the patient complained of some pain in the back. The urine showed enormous numbers of pus cells, some epithelial cells, occasional red blood cells, and a large amount of albumin. From this a diagnosis of pyelitis with cystitis was made, and after the bladder was improved by curetting, irrigations, etc., cystoscopic examination showed that purulent urine constantly flowed from the left ureter. Left nephrectomy was performed and a pus-kidney drained, and after many subsequent bladder treatments the patient was entirely cured. The microorganism in this case was the *Bacillus coli communis*.

CASE II.—Miss M. After an attack, which was thought to be influenza, the patient developed an illness which was pronounced typhoid fever, with temperature reaching 105° F. The patient, however, had also all the symptoms of acute cystitis. Since then chronic cystitis has been present and has not yielded to any ordinary treatment. The examination of the urine showed many pus cells, a considerable amount of albumin, and, on bacteriological examination, the *Bacillus coli com-*

munis. The ureters were carefully catheterized, the catheter being introduced but a short distance, not more than a quarter of an inch. The examination of the urine so obtained showed that there was a left pyelitis, and on being very carefully questioned the patient said that she had had occasionally a little pain in the left side. Nephrectomy was performed and the patient is now well, the cystitis yielding to treatment after the removal of the infected kidney.

CASE III.—Miss McH. The patient had suffered for two years with painful and frequent micturition, which was becoming steadily worse. Some time after the initial symptoms, the patient complained of some pain in the right side, which had never been severe but had been constant ever since. There had been considerable loss of weight, some feverishness at night, and general loss of strength. The urine showed enormous numbers of pus cells, some blood and epithelial cells, and much albumin; the bacteriological examination showed tubercle bacilli. The bladder was intensely injected, and much ulcerated about the left ureteral orifice. The left ureter was markedly thickened. Ureteral catheterization showed tuberculous pyelitis of the right kidney, left kidney normal. Right nephrectomy was performed and a tuberculous kidney removed. The patient died in a few weeks of uræmia.

CASE IV.—Mrs. McC. For two years the patient had suffered with typical symptoms of cystitis, painful and frequent micturition, pyuria, and occasionally hæmaturia and slight fever; the symptoms had been getting better for six months before she came under observation. There had been some pain in the left side for five months, but never severe. Examination of urine showed many pus cells, a few red blood and epithelial cells, considerable albumin; the bacteriological examination, tubercle bacilli; ureteral catheterization, that the left kidney had a tuberculous pyelitis, the right kidney was normal, while cystoscopic examination showed that the whole vault of the bladder was converted into a red irregular mass, while the left ureteral orifice was in the centre of a flat irregular mass covered with pus. Left nephrectomy was performed, and the patient made a good recovery, the bladder symptoms clearing up rapidly after the removal of the infected kidney.

CASE V.—Mrs. G. The patient had been feeling ill for a long time, and had had repeated attacks of jaundice and nausea, but never pain. She was operated upon for a relaxed vaginal outlet. Examination of the urine showed considerable pus, very large amount of albumin, while catheterization of the ureters showed that the left side was affected. The bacteriological examination was negative, and the cultures were uniformly sterile, nor could tubercle bacilli be found. A left nephrectomy was performed, and a large pus kidney removed. The patient died several months later from an infection of the other kidney with uræmic symptoms.

CASE VI.—Miss G. For the past few years the patient had complained of slightly increased frequency of micturition, some pain on urination, and very cloudy urine. She had been treated for

a long time with vesical irrigations without any benefit. Examination of the urine showed enormous numbers of pus cells, considerable albumin, low sp. gr. Bacteriological examination showed *Bacillus coli communis*. Ureteral catheterization showed that on the left side, there was a pyelitis, but the right side was normal. The cystoscopic examination showed a slight reddening about the trigonum and the left ureteral opening, the rest of the bladder being normal.

CASE VII.—Miss R. Four years before coming under observation, when she was in a very anæmic, depleted condition, she developed an attack of acute cystitis of marked severity, which had continued up to the time of observation. Two years later she commenced to complain of severe pain in the right side, for which an appendicectomy was done without relief to her symptoms. The urine examination showed many pus cells, a few epithelial cells, considerable albumin, neutral or alkaline reaction. Bacteriological examination showed *Bacillus proteus vulgaris*. Ureteral catheterization showed that the right kidney was affected. Cystoscopic examination showed reddening about the right ureteral orifice, some general reddening. A right nephrotomy was done, a large calculus removed and the kidney drained.

CASE VIII.—Miss S. Ten years before being seen, the patient had had an attack of apical tuberculosis with hæmoptysis, which was entirely cured by climatic and hygienic treatment. Eight months before admission she had had a slight attack of hæmaturia without any pain or subsequent symptoms. Examination of the urine showed many pus cells, some red blood cells, a large amount of albumin. Bacteriological examination showed *Bacillus tuberculosis*. Ureteral catheterization showed that the left kidney was affected and that the right kidney was normal. To cystoscopic examination the bladder was perfectly normal. Left nephrectomy was done and the patient was cured.

CASE IX.—Miss P. Three months before coming under observation the patient, a pale, poorly nourished seamstress, complained of pain in the bladder and frequency of micturition, the condition becoming worse and being associated with several attacks of hæmaturia. The examination of the urine showed considerable albumin, many pus cells, a few red blood cells, and epithelial cells. Bacteriological examination showed *Bacillus tuberculosis*. Catheterization of the ureters showed that the left kidney was affected, the right kidney normal. Bladder examination showed that the whole vesical vault was converted into a red irregular mass with pus in the interstices, this being especially marked about the left ureteral orifice.

In all these 9 cases the demonstration of the considerable quantity of albumin in the urine was of the greatest help in arriving at a diagnosis of pyelitis, while in a number of them the demonstration of this condition of the urine was the first thing that called attention to the infection of the kidneys. In all these cases the urine was either amber or straw colored, and when red blood cells

could be demonstrated microscopically, they were never in sufficient number to discolor the urine; in other words, to bring about another cause of albuminuria, which might confuse our results. Besides these 9 cases we have met with 6 others in which the same urinary condition was present, but in all these the diagnosis of pyelitis or pyelonephritis could be made from the symptoms of the patient in conjunction with careful examination of the renal regions, and these cases have not been included in our series for that reason.

We feel that in certainly 5 of our 9 cases the diagnosis would not have been made had it not been for the urinary examination; and we feel, therefore, that in any case in which in association with pyuria there is a considerable albuminuria, there is a great probability, if not a certainty, that an infection of the kidney is present, except in those cases in which the albumin present is referable to a nephritis, which is also present—in which case obviously the presence of casts on microscopical examination will demonstrate to us what is the cause of the albuminuria—or to a high grade of hæmaturia.

ON DETERMINING THE SPECIFIC GRAVITY OF SMALL VOLUMES OF URINE:
WITH A PRELIMINARY NOTE ON
A SPECIAL HYDROMETER
(URINO-PYKNOMETER)
DESIGNED TO WORK
WITH A FEW CUBIC
CENTIMETRES
OF FLUID.

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Under certain conditions, the quantity of urine available for examination is so small that an ordinary hydrometer cannot be floated in the liquid. Instances of this kind will occur to every physician, but the principal examples of cases in which the amount of urine collected from the patient is very small are as follows: (1) In children under one year of age. (2) In catheterizing the ureters in adults. (3) In cases in which oliguria or anuria prevents us from obtaining a sufficient amount. (4) In emergencies, in the office, or in insurance work, when rapid urinary examinations are desirable with whatever amount may be obtainable at the time.

In the case of infants, it is often difficult to collect a sufficient amount for examination; for the various expedients that have been suggested to obviate this difficulty are all objectionable on one ground or another. Thus, the use of absorbent cotton wads applied to the urethral orifice, so as to secure the absorption of urine as it is passed and to extract it

afterward, is far from satisfactory, and is not an easy means of securing enough urine for examination; the special urinals adapted for infants are in most cases clumsy, and are not always available; while the specially constructed beds which have been employed in experimental work on the metabolism of infancy are scarcely accessible outside of most elaborately equipped hospitals. The introduction of a catheter for the mere purpose of examining the urine of an infant may, it is true, be necessary at times, but for obvious reasons it is avoided by physicians of sound judgment.

In catheterizing the ureters a variable quantity of urine is obtained from each kidney, the amount depending upon a number of factors, among which are the rate of excretion, the length of time the catheter is allowed to remain in the canal, the permeability of the ureter, and the reflex inhibition of the renal function produced by the mere presence of a catheter in the ureter. The last mentioned factor was prominently brought into play, I think, in a case that came recently under my observation through the courtesy of Dr. Ramon Guiteras, of New York. The ureters of this patient, who was a man about twenty-five years of age, were catheterized by Dr. Frederick Bierhoff, who sent the urine to me for examination. The catheters were allowed to remain in the ureters for an hour. During this time the left kidney secreted only 2.5 c.c., while the right kidney, in which I found a pyelonephritis, secreted 15 c. c.

The unusually small amount secreted by the healthy left kidney during that hour was undoubtedly due to the inhibitory influence upon secretion exercised by the presence of the catheter, within the renal pelvis, which caused a temporary renal congestion. The urine from this kidney was perfectly clear and contained no pus cells, but showed a small amount of mucus, and very many freshly shed red blood cells and epithelia from the pelvis and the ureter—evidently effects of the irritation produced by the catheter.

While 2.5 c. c. is an exceptionally small amount of urine to be obtained by this procedure, the quantity available after ureteral catheterization—so far as I can judge from a number of specimens submitted to me for study by surgeons, and from looking over the reports of such cases recorded by other observers—is not infrequently less than 10 c. c. from each kidney.

In cases of oliguria, and in emergency cases, office work, and insurance work, it becomes necessary at times to examine the urine when only a small quantity can be voided or drawn by catheter. At times, such has been my experience at least, the quantity voided is so small that the examiner is dis-

couraged from making as thorough an examination as might be made even in an emergency of this kind. And yet, as we have learned from Sondern (*Remarks on the Technique of Analysis of Small Quantities of Urine Obtained by the Ureter Catheter*, *New York Medical Journal*, March 6, 1897), a comparatively thorough examination can be made, even with a very small quantity of urine.

While I admit that for accurate scientific work, for quantitative estimations, and for comparative daily study of the urine in a case, it is *absolutely necessary to deal with a twenty-four hours' quantity, or with a mixed specimen* taken from the whole volume voided in twenty-four hours, that volume being known; yet, save in cases in which the ureters have been catheterized, and excluding the urines of infants, there are instances in the daily routine of practice in which the examiner is obliged to deal with minute amounts, at least in the first examination.

METHODS AT PRESENT AVAILABLE.

The question as to the best and most practical method of determining the specific gravity of small amounts of urine is, therefore, of considerable importance, and it is my purpose to review briefly the means that have been employed in solving this problem, as well as to give, for the present in a preliminary form, the results of an attempt at simplifying these determinations by the use of a new instrument.

1. *Simple Dilution.*—Dilution with distilled water in a known proportion is the most primitive, and, in my view, the least accurate method of determining the specific gravity of small amounts of urine. A brief consideration of the conditions under which this method is applied will suffice to prove its inaccuracy. In order that the dilution may be accurate, it is necessary that the volumes of distilled water and of urine be measured with absolute exactness; that the least possible amount of water be used to secure enough of the mixture to float a hydrometer; that the mixture be perfectly uniform and its temperature be noted and allowed for in reading the result.

In practice it is almost impossible to fulfill all these conditions without a very accurate set of apparatus, including burettes or pipettes, and thermometers, and even then, the liability to error is marked. But, assuming that the dilution has been made with perfect accuracy, the error in observation will increase in proportion with the dilution. Let us take, for example, 5 c. c. as the quantity of urine available for examination. In order to float the smallest accurate urinometer, we need at least 30 c. c. of liquid. Therefore, a dilution of 5 c. c. in 25 c. c. of distilled water, *i.e.*, of one part in five, becomes neces-

sary, and the hydrometer reading, which is obtained on testing the specific gravity of this dilution would have to be multiplied by five to obtain the true density of the urine. Let us suppose that the density of the urine is 1.015. Then our dilution, all things being accurate, would read sp. gr. 1.003. If, however, the urine were of a specific gravity of 1.020, the dilution would show 1.004 on the scale of the urinometer. Therefore, a difference between a urine of 1.015 and one of 1.020 would be manifest in the dilution only by the difference of one of the small divisions of the hydrometer scale, *i.e.*, the difference between 1.003 and 1.004. If the dilution is 1:5, therefore, the liability to error in reading the scale of the hydrometer is five times as great as it is in the undiluted urine. Supposing that, as frequently happens, the observer with the best of care makes an error of one subdivision, *i.e.*, of 0.001 on the scale in undiluted urine. Then his error in the case of a urine actually of a specific gravity of 1.015 would be one-fifteenth, or 6.33 per cent., while in the same urine diluted five times a mistake of 0.001 in reading the scale would mean an error equal to 1.015—1.020, *i.e.*, 33.33 per cent.

These errors are all based upon the sole factor of a misread meniscus, which is a very common occurrence. In addition, there is the element of error inherent in the hydrometer itself, which is from 0.001 to 0.003 in the best instruments, and which may, of course, be allowed for by multiplying this known error by the number of times the urine has been diluted. The variations of temperature must, of course, be also taken into account, but they are of no great significance if the dilution is at, or nearly at, the standard temperature (in some instruments 15°; in others, in this country 17.5° C.).

Aside from all these elements of inaccuracy, the method of dilution becomes impossible when a very small quantity, such as 5 c. c., is available, and when the larger part of this amount must be used in the chemical and microscopical analysis of the specimen. If the specimen is diluted before the examination, the latter could not be conveniently carried out. If it is diluted after the tests have been made, there would remain too little urine for any specific gravity test.

2. *Hydrometers*.—The ordinary clinical urinometers, the best type of which is Squibb's, take about two ounces (30.60 c. c.) of urine to float. A number of attempts have been made to lessen the amount of urine necessary, by reducing the size of the instruments. The most accurate of these smaller hydrometers is that of Jolles (*Zeitschr. f. Analyt. Chemie*, Vol. XXXVI, p. 221, quoted in Neubauer and Vogel, *Anleitung z. Qualit. u. Quantit. Analyse des Harns*, Tenth Edition, Wiesbaden, Kreidel, 1898,

p. 661). In this urinometer the scale runs only from 1000 to 1010, but it may be set for higher readings by means of perforated disks that fit over the stem. This instrument requires from 20 to 25 c. c. to float. The trouble with the smaller instruments of this kind is that they sacrifice accuracy to smallness of size, and when it is remembered that the hydrometers of ordinary size read from 0.001 to 0.003 out of the way, the error of the smaller instruments may be imagined. So far as I know no accurate and practical urinometer has been devised to float in less than 20 c. c. of fluid. At least a search of the literature and inquiries of all the leading dealers have failed to reveal the existence of such an instrument.

3. *The Mohr-Westphal Balance*, and similar devices, work with about 15 c. c. of urine. The patented hydrostatic balance type of Sartorius-Ruhmann works with still smaller amounts, I believe. These instruments offer the most accurate clinical method of determining the specific gravity of urine. The only objection against them is their price (about \$25) which places them somewhat out of range for the physician in private practice. They are found, as a rule, in the more completely equipped clinical laboratories.

4. *Pyknometers, Sprengel's Tubes*, and similar appliances offer means of very accurate observation on the specific gravity of urine. Their use involves, however, the employment of a delicate and accurate analytical balance, which is more expensive than the Westphal scale (costing about \$100). Besides, the use of pyknometers requires a considerable degree of technical skill in order to get accurate readings. Pyknometer flasks can, of course, be made for any amount of fluid, and are used simply for comparing the weight of a given volume of distilled water with the weight of the same volume of urine.

It will be seen therefore that none of these methods provides for the determination of the specific gravity of small amounts of urine, except the balances and pyknometers, which may be used with 10 or 15 c. c. of urine, but which involve the use of expensive apparatus, the purchase of which would not be profitable to a physician who only occasionally has to deal with small amounts of urine.

EXPERIMENTAL WORK.

About a year ago, impelled by the necessity of providing some method of determining the specific gravity of, say three or five cubic centimetres of urine, I set about to experiment in this direction.

My first idea was to apply to urine the principle of Hammerschlag, now used for determining the specific gravity of blood, *i.e.*, the use of a single drop of urine placed in a cylinder filled with a mixture of chloroform and benzol, which may be made to vary in density by the addition of one or the other

of its two constituents. When the specific gravity of the mixture of benzol and chloroform is equal to that of the drop of urine, this drop must, theoretically, neither sink nor float in the fluid; hence it will be found about midway between the surface and the bottom of the cylinder. When this is the case, the specific gravity of the mixture is taken with an ordinary hydrometer, and corresponds to the specific gravity of the urine tested. After a series of experiments with this method, I was forced to abandon it. I found that I could get fairly accurate results with it, by the exercise of a great deal of patience and care, but it appeared that the results were not constant, and that some drops of the same urine in the same mixture would sink, others would float, and still others would hang in the middle. It seemed to depend upon the size of the drop, the force with which it was projected into the fluid, the uniformity with which the chloroform was mixed with the benzol, etc. On shaking the fluid the drop of urine dissolved readily, at first disintegrating and causing a cloud. On allowing the cylinder to stand unmolested the drop would dis-

solve, without leaving any traces, in a few hours. It is possible that somebody may find an indifferent mixture which does not affect the urine and can be used for this purpose with more accurate and constant results.

My next series of experiments was executed with the aid of a special hydrometer or urino-pyknometer (for it combines the features of the urinometer and the pyknometer), which was made for me from my drawings by Eimer and Amend (Fig. 1). *In this instrument I simply placed the urine in the hydrometer, instead of the hydrometer in the urine.* In doing so I merely adapted in a modified form the principle of Nicoll's hydrometers, which have platforms over the stem bearing weights, and also of Faillère's hydrometer, which has a platform at its base, over the mercury bulb. The stem of my instrument was fitted with a cup, holding over 5 c. c., which was provided with a mark at the level occupied by exactly five grammes of distilled water at 15° C. When this cup was filled to the mark with 5 c. c. of



FIG. 1.

distilled water at 15° C., and when the instrument was immersed in distilled water, the level of the latter stood at 1000 on the stem. When, however, the same volume (5 c. c.) of urine was placed in the cup, the instrument sank in distilled water in direct ratio to the specific gravity of the urine in

the cup, and this was shown by the level of the water on the stem. Hence, my scale, instead of starting at 1000 at the top of the stem and descending to 1060 near the bulb, as the scale does in the ordinary hydrometer, was reversed, ascending from near the bulb to the top of the stem. The whole affair depends upon the principle that equal volumes of liquids vary in weight as their specific gravities, and not on the principle of the ordinary hydrometer; viz., that the same object varies in weight according to the density of the fluid in which it is immersed.

With this simple apparatus, which I found to be exceedingly sensitive, I succeeded in determining accurately the specific gravity of 5 c. c. of urine. But I found that certain conditions had to be complied with before I could get an accurate reading with this instrument. The water in the cylinder must be exactly at 15° C., otherwise the instrument sinks more or less deeply than it should, and, when tested with water in the cup, does not read at 1,000. For each degree Centigrade the reading varied one division of the scale (0.001). Again, the cup had to be absolutely dry and clean before the urine was poured into it. This meant cleansing with water, wiping with cotton, and rinsing with alcohol, which was allowed to evaporate. But, above all, it was absolutely essential that the volume of urine poured into the cup should be exact to the fraction of a drop. The instrument was so sensitive that the addition of a single drop to the urine in the cup would make the stem sink about five degrees (0.005). The ordinary graduated pipettes are not made to deliver exactly 5 c. c., allowing for adhesion of fluid to the walls, etc. I therefore had a pipette (Fig. 2b) made that delivered exactly five grammes of distilled water without shaking or blowing out the last drop, and designed it so as to provide for a capillary bore near the graduation, allowing to read a fine meniscus. A small air chamber was also provided at the mouth end, to avoid the accident which every one who works with urine pipettes carefully avoids.

In the course of my experiments, I found that there were other precautions to be observed in the use of this instrument. It must not be dipped too far into the water, for drops of this fluid adhering to the rather long stem changed the reading. The urine must be poured gently into the cup, avoiding any escape beyond the edges of the latter. The instrument must then be handled as an ordinary hydrometer, gently twirled in the centre of the cylinder, allowed to stand still spontaneously, and read at the level of the lower meniscus.

The shape of this instrument and its size were such as to render it too fragile, and after a series of experiments with differently shaped bulbs, the sec-

ond form (Fig. 2a) was made for me by the same firm. This was less fragile, but just as accurate and sensitive, and required just as many precautions in reading. The cylindrical bulb proved to be more practical, although theoretically the spindle shape I used first should be better, as the area of friction is less, and consequently the error due to this element (present in all hydrometers) is minimized.

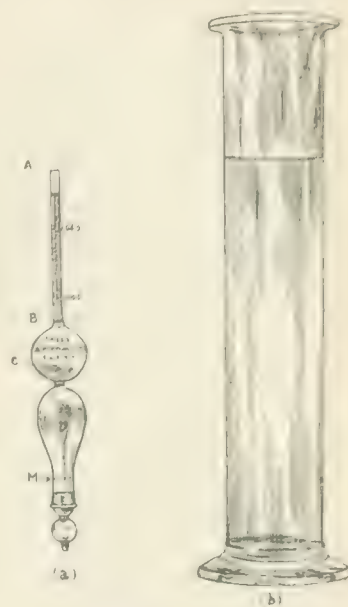
In December, 1902, I demonstrated the second type of the instrument before the American Urological Association, and in the discussion which arose I was strengthened in my belief that such an appliance was needed and, when perfected, would be welcomed as a practical aid to uranalysis. While my results up to that time had been satisfactory, yet in some respects I was not contented with the instrument. Continuing my experiments with the second type of the urinometer, I went over it critically, studying its defects.

I found, in the first place, that it was too large, measuring 11 inches in length and 1.25 inches in diameter at the bulb. This, of course, did not prevent its working with 5 c. c. of urine, but it required a large cylinder and a considerable amount of distilled water. The size of the bulb and the length of the stem could not be made smaller, for technical reasons which I need not detail here. The chief difficulties in the construction of the instrument were the necessity of a large bulb to balance the comparatively great weight of the full cup, and the shortness of the scale, dependent upon the small difference between water and the densest urine obtainable. The small amount of urine used made this difference in weight between 1,000 and 1,060 very slight. These defects resulted in the large size, the fragility, and the extreme sensitiveness of the instrument. In addition, the temperature variations of a large body of water, such as that used for my instrument, necessarily reacted more markedly upon the reading of the scale than is the case in smaller instruments.

The difficulties to be overcome were practically two: (1) The instrument had to be made smaller and more compact, and (2) the readings had to be



rendered easier and the manipulations less cautious. This end was finally reached in a third form of the urino-pyknometer,¹ which Eimer and Amend made for me (Fig. 3a). The modification consisted in placing the urine beneath the water instead of over it, the principle being otherwise exactly the same. This enabled me to have a small instrument, which was no larger than the ordinary urinometer, and much less fragile than the first two types. The necessity of balancing a weight of fluid in the cup is no longer present,



hence the amount of mercury required is minute and the bulb is reduced to very small dimensions. The instrument can be used in the ordinary cylinder of the Squibb hydrometer with two ounces of distilled water (Fig. 3c). It is just as sensitive as the other two forms, but is more simple and the liabilities to error much less.

The stem (AB) of this form of the instrument is identical in graduation with those used in the other forms. The bulb (C) is spherical, or nearly so, and beneath it is a small inverted flask (D), closing with a ground glass stopper (E), and provided with a mark (M) at its neck. The stopper has a hollow tip, which is provided with a small mercury bead.

When the flask is inverted and filled with distilled water to the mark, the lower meniscus always being used, and when the instrument is closed and immersed in distilled water, the stem stands at 1000. When urine is poured into the flask, filling accurately until the lower meniscus touches the mark, and the instrument is immersed in distilled water, the specific gravity of the urine is simply read on the scale. About 3 c. c. are sufficient to fill the flask. There is no danger of the stopper dropping out

¹ Since this instrument was made, my attention has been called to the existence of a patented aerometer, known as the Elebhorn aero-pyknometer. The principle of this instrument is similar to that of the urino-pyknometer, but it is constructed differently and cannot be adapted for small amounts of fluid. The instrument in question is about twelve inches long, has been made for a variety of scales, and has no bulb, but a chamber for liquids which is closed by means of a stopper at the side of the instrument. This chamber must be filled flush to the stopper with fluid. It is impossible to construct small hydrometers for 5 c. c. of urine on the Elebhorn plan.

when the urino-pyknometer is in the water, as it is held in place by moisture and by the pressure of water on all sides of it. A pipette is used to pour the urine into the flask, which is held firmly by the stem, and placed exactly at the level of the eye. Care is to be taken not to allow any urine to adhere to the neck of the flask over the mark in pouring in this fluid. The correction for temperature is not very great and will be supplied in the shape of a table or formula with each instrument. The only other precautions in reading this instrument are the same as those observed with the ordinary hydrometers. The chief of these is the prevention of the instrument from adhering to the walls of the cylinder and the reading of the lower meniscus at the level of the distilled water.

I present this instrument in its perfected form in this preliminary paper, because the results which I have obtained with it justify the belief that it has solved the problem of an inexpensive, practical apparatus for determining the specific gravity of the urine when only a very small amount is available.

At the time of writing I am about to study my method as compared in accuracy to the Westphal balance, the pyknometer, Sprengel's tubes, etc., under the direction of Professor William Hallowell, at the Fayerweather Physical Laboratory of Columbia University. The result of these tests will be published shortly. I may say, however, that in actual clinical work I have found the urino-pyknometer to read as accurately as any of the urinometers now in use. Its advantages over the more elaborate scientific methods, involving the use of the analytical scales and pyknometers, are its simplicity, inexpensiveness, and the ease with which observations may be made with it, using but a few cubic centimetres of urine.

294 WEST NINETY-SECOND STREET.

The Michigan College of Medicine and Surgery opened on September 29th at Detroit, Dr. William A. Hackett delivering the opening address. The Saginaw Valley and Bay City College has recently been consolidated with this institution.

Wisconsin State Commission to Investigate Tuberculosis.—The State commission recently appointed to investigate pulmonary tuberculosis in Wisconsin and the proposition to establish a State sanitarium for the treatment of persons affected with the disease has been organized by the election of Gustave Schmitt, of Milwaukee, president; Michael Raun, of Merrill, vice-president; Professor H. L. Russell, of Madison, secretary. The first work of the commission will be to secure statistical data as to the prevalence of the disease in Wisconsin and the results of treatment in sanitariums. The commission must finish its work and report to the governor by December 1, 1904.

LEFT SIDED APPENDICITIS.*

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The symptoms of appendicitis are to such a degree dependent upon the location of the appendix, that the following reports of two autopsies are of practical interest in explaining the cause of left sided pain in this affection.

I.—Male; white; aged fifty-five years.

Liver normal. Spleen normal. Stomach normal; pyloric ring very marked as felt from the outside. No trace of peritonitis. Thoracic viscera normal.

Upon opening the abdomen, the *omentum* is seen matted, and rolled upon itself, but not adherent to the viscera underneath. The mesentery is attached from the right over to the left; on the right side to the second lumbar vertebra, on the left side to the last lumbar, just above the promontory of the sacrum.

The *colica media* artery runs upward and to the left to the greater curvature of the stomach, about one inch from the pylorus, and anastomoses with the *epiploica sinistra* from the splenic, taking the place of the *epiploica dextra*. The hepatic artery is very large; the superior mesenteric artery is convex toward the left, giving off the *vasa intestini tenuis*.

The inferior mesenteric artery is normally placed. The portal vein is very large and lies to the inner side (left) of the hepatic artery. The common duct is to the outside (right).

The round ligament carries the peritonæum before it as a pouch down to the longitudinal fissure of the liver.

The third portion of the *duodenum* is absent; it ascends toward the neck of the gall bladder, then turns to form the first and second portions, which, as usual, run to the right of the head of the pancreas; thence, passing straight down to the right side of the body of the fourth lumbar vertebra, it becomes "*jejunum*."

The *ileum* ends at the ileocæcal valve on the left side of the fourth lumbar vertebra. The appendix is attached just below the ileocæcal valve and points upward and backward toward the liver. The cæcum is very small and rests upon the fourth lumbar vertebra.

The ascending colon extends from the left side of the fourth lumbar vertebra obliquely upward to the right, passing over the aorta to the right side of the body of the third lumbar vertebra, where it turns upon itself and goes again over to the left side as far as the crest of the ilium, where it makes a sharp turn upon itself running upward to the under surface of the spleen to form the splenic flexure; from thence it is continued down in the usual position of the descending colon.

II.—Male; white, aged thirty years.

* Read by title at the meeting of the Pennsylvania State Medical Society, York, Pa., September 22, 23, and 24, 1903.

The *mesentery* runs from right to left, its upper margin being attached below the transverse colon to the right side of the second lumbar vertebra, and on the left side of the lower border of the fourth lumbar vertebra just to the left of the bifurcation of the aorta.

The liver is very large. The stomach appears somewhat narrow, the first two thirds from the œsophageal opening downward being almost vertical; then it makes a sharp turn to the pyloric orifice.

The *duodenum* extends at first upward and to the right to the under surface of the gall bladder, then, turning, goes obliquely downward to the right side of the second lumbar vertebra, and proceeding downward still further to the body of the third lumbar vertebra, it ends in the jejunum in the median line; thence the jejunum extends to the right. The *ileum*, at the lower portion, runs from right to left, ending at the ileocaecal valve in the median line over the promontory of the sacrum. The cæcum is well developed in regard to its right lobulation, being somewhat pyriform in shape, of which the apex runs to the appendix. From the cæcum (upon the promontory of the sacrum) the colon runs downward into the pelvis as far as the third sacral vertebra; it then turns upward to the right iliac, ascends in front of the kidney to the under surface of the liver, thence passes transversely across the abdominal cavity to the left side, below the stomach, then turns upon itself and goes back to the median line, and again reverts upward and backward to the spleen; thence courses abruptly downward, to form the descending colon, which again goes toward the median line, and thus with the omega loop forms a double S.

White fibrous bands two inches and a half wide, without any of the usual appearances of organization following the formation of inflammatory lymph, extend from the loop of the inverted ascending colon across the rectum.

The appendix is a little to the left of the median line, entering the cæcum as it rests on the promontory of the sacrum, the base being on a line between the anterior superior spinous processes of the ilium, the body running upward in front of the sigmoid mesocolon, then turning downward in front of the omega loop in front of the brim of the pelvis.

The solid abdominal viscera were normal.

The specimens are remarkable, not only as instances of left sided appendices, but also as illustrating some remarkable displacement of the viscera explicable only from an embryological standpoint.

The alimentary tube is at first straight, attached to the median line by the peritonæum; later, becoming differentiated, the stomach is almost vertical, the duodenum extending from the pyloric orifice almost straight downward to the jejunum; the ileum running from *right to left* into the cæcum; the transverse colon is tucked up toward the duodenum forming a sort of neck, and through this the superior mesenteric artery

passed. Upon this neck and artery, as an axis, the transverse colon turns from below upward and from left to right; the small intestine passes to the left; the rotation of the pyloric end of the stomach toward the right, carries the duodenum from the left side over to the right, whence it makes its horse-shoe curve downward around the head of the pancreas and across the median line to the left, where it ends in the jejunum. The cæcum is thus in the right hypochondriac region, and traveling downward finally reaches the right iliac region, the lowermost portion being called cæcum and its atrophied portion the appendix.

The conditions in both sets of specimens are referable to the results of intrauterine inflammation, possibly syphilitic, with the arrest of development.

In the first specimen the transverse colon is bound down and rotation of the viscera is attempted, but is incomplete; the small intestines pass to the left to a degree sufficient to throw the ileum from left to right, but as the mesentery becomes adherent very early the duodenum is prevented from going over to the extreme left. The transverse colon rotates upward to a degree, but is arrested in the median line, and the descending colon and cæcum develop directly downward in the line of the vertebral column.

In the second specimen, in consequence of the adhesions taking place, the small intestine does not rotate at all; the ileum thus runs as in the fœtus, from right to left, and the third part of the duodenal curve is not formed; the stomach also is more vertical than usual in the adult; the transverse colon rotating well up into the right hypochondriac region the descending colon and cæcum are developed, but the ileum becoming fixed, the cæcum is drawn into the median line, and through the further development of the ascending colon, becomes inverted, throwing the appendix to the left side; the adhesions of the bands extending from the ascending colon to the rectum doubtless determining the pelvic position of the first part of the ascending colon.

While the reflected symptoms of appendicitis should always be held in mind, it should not be forgotten that "displaced pains" may also be accounted for by "misplaced" appendices. McBurney's point is a definitive spot in the minds of many practising physicians, but the tenderness should be fixed with regard to the site of the base of the appendix, rather than rigidly in relation to the external anatomical structures.

Dr. Robert H. Dawbarn, of New York, some years ago reported to me an autopsy "in which through a congenital opening in the left leaflet of the diaphragm, the intestine made its way into

the left side of the thorax. . . . The appendix about 2 cm. long and quite normal, lay in contact with and partly in front of the pericardium." "If this man had ever suffered appendicitis, the pain would have been referred to the apex of his heart, or a little to the right of the apex."

In a recent operative case of my own the patient complained of such agony in the lumbar region, so severe and so persistent, that with the heightened temperature, sudden onset, and vomiting, it might readily be mistaken for smallpox—the local symptoms being accounted for by the appendix lying behind the ascending colon. The operation was planned upon this premise, and a gangrenous appendix found *in situ*.

It is important, therefore, that we gather the reports of the anomalous positions of this troublesome little process.

In the two autopsies before us:

No. 1. The appendix was attached to the ileum just below the ileocaecal valve, on the left side of the fourth lumbar vertebra, turning upward and backward toward the liver. A diseased condition of the base would perhaps have been indicated by an area of soreness not larger than the tip of the forefinger, just below and to the left of the umbilicus.

No. 2. The base of the appendix is a little to the left of the median line, on an equator bisecting the two anterior superior spinous processes, the vermiform itself running down in front of the omega loop over the iliopectineal line; the small circle of tenderness would, therefore, have been on the left side, in the true pelvis, an inch below the promontory of the sacrum, and peripherally in the upper portion of the hypogastric region.

We must also remember that the area of tenderness on pressure in a localized appendicitis rests upon the seat of the disturbance in the appendix itself—the infection usually spreading from the caecum. The base is, therefore, more commonly affected, and "the McBurney point" is a logical sequence. Still, especially in the chronic recurrent varieties, it is possible for the apex to be painfully inflamed without the base, in which case the length of the appendix, as well as its position, will influence the symptomatology. Thus, a six inch appendix, with an inflamed apex (the remainder of the organ being comparatively normal), dropping down into the true pelvis, may simulate a diseased ovary or tube or a pelvic abscess, or stretching over to the left iliac region, may counterfeit postsigmoidal, or other inflammatory disorder of that region.

2025 CHESTNUT STREET.

THE TREATMENT OF CONVERGENT STRABISMUS.

By WILLIAM G. CRAIG, M D.,
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Not only the laity, but a great many physicians are under the erroneous impression that, if crossed eyes are straightened by an operation, the patient is cured, and the result all that is to be desired. Squinting eyes are considered with indifference. There is a vain belief that the deformity will be outgrown, that nothing can be done until the child is old enough to read, or at least to know the alphabet, and that when he has reached the age of eight or ten years, then by a very simple operation the crossed eyes may be made straight. It is this want of knowledge on the part of the parents, and lack of advice on the part of the family physician, that handicaps us in the treatment.

The old adage: "Just as the twig is bent the tree's inclined," applies exceedingly well in these cases.

A child is born with the ability to perceive light only. The image of surrounding objects is pictured upon the retina but as such is not perceived. The brain centres must be educated to interpret the nerve impulses; this education takes place gradually. If the images fall upon corresponding portions of the retina in each eye with sufficient distinctness, the brain perceives them as one, or fuses them, and we have single binocular vision. This power of fusion is acquired by the fifth or sixth year. If from any cause the vision of one eye is poor, the incentive to fuse the images is wanting, the better eye alone fixes, and the weaker eye, if there is muscular inequilibrium, turns in or out and takes no part in the visual act. During these five or six years the eyes are being educated, but educated wrongly. The deformity, which at first was slight or transitory, becomes fully developed and permanent.

In seventy-five per cent. of all cases of convergent strabismus there is an error of refraction, the eyes are either farsighted, astigmatic, or both, or have anisometropia. The vision of the two eyes is unequal in the majority of cases. The vision of the fixing eye may be normal, but the vision of the squinting eye is defective. The defect may be slight, or so great that the eye has but the ability to perceive light. We have, then, to deal, not only with a muscular deformity, but with an eye whose vision is impaired and whose function is undeveloped or lost.

The ideal cure of cases of strabismus would be the restoration of vision and function of the eyes and the correction of the deformity.

Can this be accomplished? Upon the answer to

this question will depend the method of treatment to be employed. If the function of the eye can be restored, or partially so, and the vision improved, even to a limited extent, effort should be made to accomplish this. This is possible, even after the eye has been neglected for many years. Johnson reports two cases. In the first case there had been a convergent squint since childhood, the patient being thirty-five years of age. The vision of the fixing or non squinting eye was normal; vision of the squinting eye, counting of fingers at two feet. The fixing eye was lost by accident and in ten days the vision of the remaining eye had improved to normal. In the second case, a man, aged thirty years, the vision of the squinting eye was $20/70$; in three months after the loss of the fixing eye through disease, the vision had improved to $20/16$. Lewis reports the case of child, aged eight years, with right eye amblyopic; vision, ability to count fingers at 15 feet. After three months' use of this eye, the left being covered, certain periods each day, the vision had improved to $20/80$. Similar cases of improvement have been noted by Landolt, Javal, Pannas, and Worth.

Efforts in the direction of improving the eye should begin early and be kept up systematically and continuously. The earlier they are begun, the better the chance for improvement. This may be called the non-operative treatment though in many cases "preoperative" would be the better term, as it is preliminary to later operative procedures. The different procedures may be outlined as follows:

The use of mydriatics.

Correction of refractive errors.

The exclusion pad.

Bar reading.

The stereoscope.

Mydriatics, usually atropine, are used in order to paralyze the accommodation, and in that way relax the convergence. There is an intimate relation between accommodation and convergence. With the act of accommodation there always is a definite effort at convergence. By relaxing the accommodation we take away this effort and lessen the strain upon the internal recti muscles. Near vision is blurred, or so diminished, that the eyes cannot be used for reading or the child is unable to play with small toys or pictures, and the strain in this way is removed. The mydriatic should be used when the first tendency to squint is noticed. The amount used will depend upon the age of the child; usually atropine one to four grains to the ounce, instilled three times a day for three days and then once daily to keep the accommodation suspended. This should be continued for one month, when the drops

may be discontinued for the same length of time. If the squint is not relieved or shows a tendency to recur, the atropine should again be employed in the same manner. In very young children, or in children in whom the tendency to squint is slight, the use of the mydriatic alone will sometimes be all that is required. The constitutional effects of the drug—dry skin, flushing of the face, and dry throat, must be watched for, and if present, the strength of the drug diminished. When an idiosyncrasy exists to atropine, duboisine or homatropine may be tried.

The correction of errors of refraction benefits in two ways.

Properly adjusted glasses improve the vision of the eyes, thus aiding the fusion of images and the establishment of binocular vision, and by taking the strain from the ciliary muscle, lessen the tendency to convergence. The refraction should be done very carefully, that the total error may be learned. Glasses that correct all, or nearly all, this error should be prescribed and worn constantly. Neglect to do this, especially to correct accurately the astigmatism when present, will often result in failure. To refract these cases accurately the accommodation should be completely relaxed by the use of atropine. In young children the use of the objective tests—the cards and trial lenses, is of no avail, the refraction must be measured by the objective tests—the ophthalmometer and retinoscopy or the shadow test. By these means the error of children as young as two years of age can be measured accurately.

The age at which glasses may be worn will depend upon the parents; children of two to three years will have little difficulty in wearing glasses if properly adjusted. The earlier the glasses can be worn, the better the effect on the squint. Gould, of Philadelphia, reports a case of a child, aged two years, with convergent squint, whose squint was entirely relieved by glasses. After these had been worn for a few weeks, the child was restless and fretful and cried when the glasses were removed. If the glasses are put on early and the development of the strabismus checked, they may frequently be taken off later and used only for near work.

The exclusion pad is a shade, patch, or bandage worn over the non squinting eye for a certain period daily. By this means the squinting eye is forced to do the work. This tends to increase the visual acuity of the eye, develops the macular perception, and exercises the weak external muscle. The fixing eye, when covered, immediately turns in, the squinting eye assuming the normal position. In very young children a bandage is best, but in older children a shade over the eye, or a piece of black adhesive plaster pasted over the lens of the glasses

on that side, may be worn. This shade should be worn for a certain period, say for one hour three times a day. If the vision of the eye is very poor, the child should be given large toys for playing with, or, if able to read, a book with large, distinct print, the size of the print being gradually reduced as the vision improves. It is often a good plan to have the shade worn at meal time when the vision is of such a low grade that reading is not possible. The same effect to some extent may be accomplished by instilling atropine into the non-squinting eye. This is of advantage in older children, as it compels the use of the squinting eye for near work.

The exercise of bar reading can only be used with children of eight or more years; it is very simple, and for squints or low degree may work well.

Have the child hold a pencil vertically before the book while reading. If the eyes are parallel and there is binocular vision, there will be no difficulty in reading readily across the page, but if the eyes do not work together, when the line of vision reaches the pencil a word or part of a word will be covered, causing a break in the line. When the degree of squint is slight, a little perseverance and effort will bring both eyes into play and the reading will be without difficulty.

The stereoscope, an instrument with which you are all familiar, is also useful to stimulate fusion of images, especially in cases after operation. By using the pictures of Kroll the child can be readily interested and will enjoy the practice.

These different methods of exercise should be continued as long as there is any improvement in the degree of squint or in the vision of the eye. Even if no improvement is manifest, it is well to try for from eight to twelve months.

The question is often asked, When should cases of convergent strabismus be operated upon (meaning at what age)? There is no stated age or time. The proper time is when, after a continued course of exercises, a stage is reached when all improvement ceases. This time will depend entirely upon the age at which treatment is begun. If the child in first seen at two years or two years and a half, when the squint is first noticed, and the methods given above have failed of result, I should not hesitate to operate at the age of four or five. I should consider between five and six years the age of election, before the child has the added strain of school life.

The operation performed is a division of the tendon of the internal or stronger muscle, an advancement or shortening of the external muscles, or a combination of the two.

The operative procedures may be divided into four classes:

First. Simple tenotomy of the internal rectus of the squinting eye, and if necessary later the tenotomy of the internus of the other eye.

Second. Tenotomy of the internus of the squinting eye, followed by tenotomy of internus of other eye; advancement of externus of squinting eye and later advancement of externus of fixing eye, if necessary.

Third. Advancement of both externi without tenotomy.

Fourth. Forced stretching of both interni followed by tenotomy.

These combinations may be varied to suit the case at hand, and the effect increased or diminished by the use of atropine bandage, or guy sutures to the temple.

In performing simple tenotomy the conjuncture over the insertion of the muscle is picked up and divided by means of blunt scissors. The tendon is then grasped and divided, only the central fibres will be cut, the lateral ones are then caught by a strabismus hook, passed through the conjunctival wound and drawn forward close to the globe, and divided. The amount of division will depend upon the degree of convergence to be overcome.

In an advancement, the insertion of the muscle is exposed by a vertical incision through the conjunctiva 5 mm. from the cornea. A blunt hook is then passed under the tendon, which is dissected from above and below with scissors. The remaining steps of the operation are variously performed by different surgeons. The method I prefer is as follows: The exposed tendon is seized by broad fixation forceps or by means of Noyes's toothed strabismus hook, and divided close to the globe. Three silk sutures, armed at each end with fine curved needles, are then passed through the tendon from below upward, one through the centre, one through the upper, and one through the lower third. The tendon is then divided between the sutures and the hook, the amount of tendon excised being regulated by the effect to be produced. The central suture is then passed horizontally forward through the conjunctiva and superficially through the sclera and brought out at the sclerocorneal junction. The upper suture is carried upward and outward; the lower downward and outward, and brought out also near the corneal margin. The central suture is tied first then the two lateral ones. No suture is required to close the conjunctival wound. If the central suture is of white silk and the lateral of black, confusion in tying will be avoided. The eyes are then bandaged for twenty-four hours, the sutures allowed to remain three or four days.

The tenotomy of the internus of the squinting eye alone has been abandoned of late, most surgeons preferring to divide the effect between the two

eyes. The tenotomy of both interni, preceded by their forcible stretching, as advocated by Panas, has lately been tried quite extensively with good results, and in some cases, especially in alternating strabismus, works well. The immediate results will appear somewhat startling, but in the cases in which I have tried it, the results were excellent, though for the first twenty-four hours there was marked divergence.

The advancement without tenotomy, as advocated by Landolt, has not proved satisfactory, as it is very difficult to advance the externi sufficiently to overcome the strong interni. A few years ago, when in New York, Dr. Landolt, through the courtesy of Dr. Gruening, operated upon five cases according to his method. The results in all were under-correction, some convergence remaining.

In closing, I would call your attention to the following points, which a study of cases and of the literature on the subject will I think warrant:

First. The earlier the child is seen, the better the prospect for a cure.

Second. The vision of squinting eyes can in a majority of cases be improved and some function restored if treatment is begun early.

Third. A small percentage of cases of convergent squint can be cured by mydriatics, glasses, and proper exercises, alone without operation.

Fourth. The correction by non-operative methods is much to be preferred, as the motility of the eye is more perfect and the deformity produced by sinking of the caruncle is avoided.

Fifth. Operative procedures should be employed in those cases in which non-operative treatment after a thorough trial has failed, and in those cases in adults in which we operate for the cosmetic effect.

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The Medico-Chirurgical Society, of Ottawa, Can., is a new organization, formed by the amalgamation of the medical and clinical societies on the first instant. The following officers were elected: Honorary president, Sir James Grant, K. C. M. G.; president, Dr. H. B. Small; first vice-president, Dr. Dewar; second vice-president, Dr. Webster; secretary, Dr. C. H. Brown; treasurer, Dr. Kirby.

Colorado State Medical Society.—The Colorado Medical Society is being reorganized under a plan which will exclude quacks and other undesirable persons. In the future, no one will be eligible who is not already a member of one of the county societies. Secretary J. M. Blaine has been organizing the latter all over the State, and believes the new plan will attract desirable men who have hitherto held aloof. The State society will meet in Denver, October 6th, 7th, and 8th. In the programme is an address by Dr. Stover on Radium, with demonstrations.

DIFFERENCES IN THE MANAGEMENT OF APPENDICITIS AND OF SALPINGITIS.*

By GEORGE ERETY SHOEMAKER, M. D.,

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As though to cast discredit once more on dogmatism in surgery, there has arisen a new light upon the pathology and causation of abdominal inflammatory disease in women. Thirty years ago such terms as parametritis and pelvic cellulitis represented the prevailing ideas of the pathology of pelvic inflammation. Then arose the knowledge of salpingitis, and for a period of years it required some boldness to admit in a public discussion a belief in pelvic disease not due to this cause. Later came the demonstration that pelvic inflammation, especially of puerperal origin, might occasionally occur where the tubes were normal. Still further knowledge proclaims that some of these conditions, relatively few, are due primarily to a diseased appendix. Granted that appendicitis pure and simple occurs in women as in men, there arise at once new problems for solution, which have to do first with diagnosis and then with management.

The *differential diagnosis* of appendicitis and salpingitis is of importance because there are important differences in prognosis and in operative indications. It may be difficult or impossible to separate clinically inflammation of the appendix and that of the right tube. Should the two organs lie in contact, as they sometimes do, either may be secondarily involved from the other, and then who can tell the origin of the trouble without inspection? But, generally, there is a suggestion in the past history and a broad hint from the location of the tenderness, while vaginal examination may make it possible to exclude the right annexa. Where the tube has been the seat of previous inflammation, menstrual disturbances are apt to be present. There has long been pain in the back or in the groins, pain extending down the thighs, and often preceding the flow. When the appendix alone has been at fault there is less probability of menstrual disturbances, though dysmenorrhœa of neurotic origin may confuse the situation. When both organs are involved, the menstrual symptoms are not helpful. Appendicitis is usually indicated by the association of the periods of activity with gastrointestinal, rather than menstrual, disturbance. Chronic mucous colitis often accompanies it. The inflammatory mass of tubal origin can usually be felt as low as the internal os uteri, behind or to the side of the uterus, while appendicitis rarely gives rise to a mass as low down as this, unless indeed in a case of several days' or weeks' duration, when pus may descend into the

* Read at the meeting of the Medical Society of the State of Pennsylvania, York, Pa., September 22, 23, and 24, 1903.

uterorectal pouch and both sides be involved in a true pelvic abscess.

Granted, however, that the diagnosis has been made. The *prognosis* of acute salpingitis and acute appendicitis, not in either case of the catarrhal type, will differ in this, that with two patients apparently showing the same alterations in pulse and temperature and an equal amount of localized tenderness or rigidity, the one with the involvement of the tube alone stands a much better chance without operation of the spontaneous subsidence of the acute symptoms, of the sure incarceration of the diseased area by adhesions, of the avoidance of an intraperitoneal rupture of an abscess, and of escaping death from general sepsis. More than this, in the case of the appendix, the disease is much more treacherous, and the patient's condition much more likely to be masked until grave symptoms appear with startling suddenness due to gangrene of the appendix, its rupture, or diffused purulent infection of the peritonæum. The occurrence of gangrene of the tube is comparatively rare, while it is common in the appendix, and not only common but most insidious. When pus forms in the tube the organ is already sealed at the end, it rolls up in the broad ligament and tends to seek a safe retreat at the bottom of the pelvic cavity behind. When leakage occurs from the fimbriated end, a limiting wall of adhesive inflammatory material has almost always anticipated the event and diffuse peritonitis is most rare. The contrary is too often the case in appendicitis. All forms of salpingitis, except streptococcus infections and gangrenous degeneration of the sac wall, may be safely treated without postoperative drainage, when the integrity of the intestine is not involved. Even acute suppurative conditions may thus be handled and usually with safety. Not so with acute or chronic suppurative disease of the appendix, which always requires drainage after removal. The difference is due to the character of the bacteria present in the intestinal lesion; such bacteria and the products of their activity being extremely harmful within the peritonæum. Compared with the products of gonorrhœal infection, for example, they are not well cared for by natural processes.

The indications for operation differ because the immediate danger to life and health without operation is greater in the case of the appendix. In acute catarrhal appendicitis of mild character a prompt amelioration frequently follows abstention from food and free movement of the bowels, so that in twenty-four or thirty-six hours the convalescence appears clearly established. Mild cases would rarely require operation, either primary or after the attack had subsided, if we were only sure which ones would continue to be of this innocent type and which were the treacherous ones, apparently doing

so well with a temperature below 100° F., and little or no pulse disturbance until the fifth or sixth day, when the situation changes, pus forms, or a small necrotic area of appendix wall drops out, and we face a grave condition instead of a trivial one. What may be called the treachery of the appendix has become in my mind, with increasing personal experience, a strong inducement to operate promptly in all cases except the simplest catarrhal cases in a first attack; in these, unless sure subsidence of the symptoms occurs within twenty-four hours of the onset; and in all cases in which there has been a previous attack. I have treated many in the past ten years without operation and have operated upon more, but the more I see of the disease and its results in my own hands and the hands of others, with and without early operation or without operation at all, the more the above conclusions are forced upon me. When the tube alone is involved, a much greater latitude is allowed for conservatism. Many milder cases can be best managed by ice, rest, and laxatives. The onset of pus formation can with safety be awaited, while in a considerable proportion, not of the severer types, the interests of the patient are best served by awaiting the subsidence of acute symptoms, including the diminution of leucocytosis, before radical operation is undertaken. Less tissue will then require removal and the chances of infecting the peritonæum will be diminished. As a general rule, purulent gonorrhœal infection leaves little field for conservatism, and though the ovaries may be left, both tubes usually require removal. Complete resolution may occur in puerperal cases in a most surprising way. In appendicitis, whether acute or chronic, where supuration has occurred, practically all cases require drainage after removal. In appendicitis, treatment by drainage without removal, whether above or below the pubis, is out of place, barring a few desperate dying cases; while some forms of salpingitis, especially streptococcus infections of puerperal origin, are most safely treated and many are most successfully cured by vaginal operation. Early cases of salpingitis, especially puerperal, may be managed without sacrifice of tissue through the posterior vaginal incision. Bad pus tube cases, especially of gonorrhœal origin, bear radical operation well, and yield a lower mortality than extensive suppurations of the pelvis due to appendicitis. The principles of operative treatment are the same, and consist of skillful walling off with gauze, gentle removal of pus with gauze, removal of diseased parts, and drainage in tube cases whenever the integrity of the bowel wall has been invaded; in appendix cases, whenever pus outside the organ or rupture, or gangrene has appeared.

1831 CHESTNUT STREET.

Our Subscribers' Discussions.

A SERIES OF PRIZE ESSAYS.

[Questions for discussion in this department are announced at regular intervals. So far as they have been decided upon, the further questions are as follows:

XXVI.—How do you treat "habitual abortion"? (Under adjudication.)

XXVII.—How do you treat paraphimosis? (Under adjudication.)

XXVIII.—What do you rely on in the diagnosis of small-pox in the papular stage? (Answers due not later than November 10, 1903.)

Whoever among our subscribers (with the limitations mentioned below) answers one of these questions in the manner most satisfactory to the editor and his advisers will receive a prize of \$25. No importance whatever will be attached to literary style, but the award will be based solely on the value of the substance of the answer. It is requested (but NOT REQUIRED) that the answers be short, if practicable, no one answer to contain more than six hundred words.

Only subscribers to the NEW YORK MEDICAL JOURNAL AND PHILADELPHIA MEDICAL JOURNAL (including regular and volunteer officers of the Medical corps of the United States Army, Navy, and Marine Hospital Service, commissioned or under contract) will be entitled to compete, and all persons known to be engaged in medical journalism are disqualified. This prize will not be awarded to any one person more than once within one year. Every answer must be accompanied by the writer's full name and address, both of which we must be at liberty to publish.]

The prize of \$25 for the best essay submitted in answer to question XXV has been awarded to Dr. J. R. Clemens, of St. Louis, whose article appeared in our issue for October 10th.

PRIZE QUESTION NO. XXV.

THE TREATMENT OF DELIRIUM TREMENS.

(Concluded from page 707.)

Dr. Dudley Fulton, of South Bend, Ind., writes:

The essential indications in the management of acute alcoholic insanity or delirium tremens are: 1, Withdrawal of alcohol as speedily as the condition of the patient permits; 2, To improve by frequent feeding the impoverished nutrition induced by the accompanying gastritis; 3, To produce sleep. The patient should be put to bed in a quiet, darkened room. The mild, coaxing restraint of a nurse is always to be preferred to mechanical or other restraint. The use of alcohol is harmful, and should be discontinued at once, except in old and debilitated persons, and in those in whom circulatory failure and threatened collapse are not easily controlled by other stimulants and heart tonics. The second indication, feeding the patient, is important. The nutrition of these patients is usually gravely poor, incident to the long continued anorexia, gastric inflammation, and morning nausea and vomiting.

Delirium tremens is the result of alcoholic poisoning plus inanition. Berkley designates the condition as a "collapse delirium." If the patient has been

drinking immediately before the onset of the delirium, the stomach should be emptied and cleared of mucus and gastric detritus by lavage or by emesis with ipecac. This will lessen nausea and vomiting when present, and in all cases prepares the gastric mucosa for the reception of food. Citrate of magnesium should then be given in a full dose, to empty the bowel; and skin and kidney activity favored by warmth and liquids. Much of the weakness and depression, nervous and mental irritability, may be prevented or lessened by this plan of maintaining active bowel, kidney, and skin functions and of quickly improving the nutrition of the patient. Liquid foods—milk with twenty-five per cent. of some effervescent water added, whites of eggs, bouillon, soups, and gruels should be insistently given every three or four hours, through a nasal or stomach tube, if need be.

Much depends upon successfully meeting the third indication, that of producing sleep. The aim should be to give as natural sleep as possible, and to avoid the cardiac depression which follows heroic doses of the various narcotics. To this end 20 grains of trional should be administered, and the patient placed in a neutral bath, the temperature of which is from 93° to 98° F., from twenty minutes to an hour or longer, or preferably in the sedative pack, given by quickly wrapping the patient in a sheet wrung from water of 60° F., then closely covered with blankets. Warmth, sedation, and drowsiness almost invariably follow within a few minutes. If in half an hour sleep does not follow, 10 or 15 grains more of trional are to be given. Often, in the writer's experience, no trional or other hypnotic is needed. The sedative pack is doubly efficacious in that violent and delirious patients can be quickly imprisoned in the coils of the wet sheet, the sedative effects soon soothing and quieting them. The patient can be safely left in the pack for hours. The warmth of the pack is to be controlled by removing from or adding to the pack dry blankets. The best effects are obtained when the patient is kept just short of sensible perspiration. In unusually violent cases potassium bromide, given in 30 grain doses every three or four hours, is to be advised. In persons with a sound heart and flexible arteries chloral hydrate, in 20 grain doses, can be given every three hours at first. Ordinarily the trional controls the delirium rapidly, is safe, is well borne by the stomach, and is without unpleasant after-effects. Occasionally, in very severe delirium, morphine needs to be cautiously given in quarter grain doses hypodermically. If, after one or two doses have been given, the restlessness continues, it should be discontinued. The general condition, the temperature, strength, respiration, and heart of the patient are to be carefully observed. If the pulse becomes too weak and

rapid, perhaps the best stimulant is cinnamon, with very small doses of digitalis in aromatic spirit of ammonia, as advised by Kerr, of London. In the old and debilitated alcohol may be required to combat impending collapse.

Dr. Leander P. Fernandez, of Kalamazoo, Mich., writes:

Delirium tremens is a condition of active maniacal excitement which in its worst form is accompanied by intense general nervous excitement, muscular excitement, and hallucinations, chiefly of sight and hearing, of a terrifying or disgusting nature.

It is well known that persons who for many years have indulged excessively in spirituous drinks are very apt to have delirium tremens if taken suddenly ill, or if they sustain an injury, such as a fracture, although they may have drunk no liquor for many weeks. In such cases the patient's life is in serious danger, and it may be necessary to give more alcohol to maintain the accustomed influence. These conditions here to be met are very different from those resulting from an ordinary debauch, when liquor should be entirely withheld.

Delirium tremens is only an incident in the history of chronic alcoholism, and the result of the long continued action of the poison on the brain. A spree in the case of a temperate person, no matter how long continued, is rarely if ever followed by delirium tremens; but in the case of an habitual drinker a temporary excess is liable to be followed by an attack.

Acute alcoholism rarely requires any special treatment, as the patient usually sleeps off the effects of the debauch. In profound alcoholic coma wash out the stomach, and if symptoms of collapse occur, apply heat to the extremities. If convulsions supervene, chloroform may be carefully administered. In the acute violent alcoholic mania nothing seems so effectual as the injection hypodermically of apomorphine, $\frac{1}{8}$ or $\frac{1}{10}$ of a grain. This causes nausea and vomiting and the rapid subsidence of maniacal symptoms.

Delirium tremens is a disease which in a large majority of cases runs a course but slightly influenced by medicine. The indications for treatment are to produce sleep and support the pulse. The patient should be confined to bed from the first and closely watched night and day. He should not be strapped in bed, as this aggravates the delirium; sometimes, however, it may be necessary, in which case a sheet tied across the bed may be sufficient. This is much better than forcible restraint by several men. Alcohol should be withdrawn at once unless the pulse is feeble.

For the sleeplessness the bromides or hyoscine may be employed. A drachm of potassium bromide

may be given every three hours, combined with tincture of capsicum. Chloral is of great service and may be given without hesitancy, unless the heart's action is feeble. Good results may follow the hypodermic use of hyoscine, one one-hundredth of a grain. Opium should be used cautiously. If its use is indicated, it should be given in the form of morphine hypodermically. The effect should be carefully watched, and if after three or four quarter grain doses have been given the patient is still excitable, it is best not to push it any further. Avoid digitalis. When fever is present use cold baths or the cold pack. Quinine and strychnine should be given in tonic doses.

Careful feeding is the most important element in the treatment of these cases. Milk and concentrated broths should be given at stated intervals. If the pulse becomes rapid and shows signs of flagging, alcohol may be given in combination with aromatic spirit of ammonia.

Dr. Leroy G. Kirkman, of Newark, N. J., writes:

The most important consideration in treating delirium tremens is that the nervous system be quieted and sleep induced. For this purpose it is best to put the patient at once on chloral and bromides, 10 grains of the former and 10 grains each of sodium, potassium, and ammonium bromide, such a dose to be repeated every two hours as needed. Usually the patient's pulse is full and bounding, and the chloral is well borne. But it is well to watch the pulse and pupils, and, if necessary, guard against the chloral by giving strychnine, $\frac{1}{40}$ of a grain, with it. If the patient is very restless, trional and urethane, 15 grains of each, may be given in between, at three hour intervals. In particularly violent and wakeful cases, a mixture composed of chloral hydrate and the mixed bromides, of each 10 grains, tincture of cannabis indica, 10 minims, tincture of hyoscyamus, 30 minims, tincture of digitalis, 5 minims, and codeine, $\frac{1}{8}$ of a grain, repeated every two hours for five or six doses, if needed, will be found very efficacious. In mild cases small repeated doses of apomorphine, $\frac{1}{60}$ of a grain, every two or three hours, may be all that is needed; or hyoscine, $\frac{1}{100}$ of a grain, may be tried. Paraldehyde, trional, and sulphonal are not very valuable, though trional, 15 grains, combined with the same amount of urethane, does excellent work. But chloral hydrate is the best hypnotic in these cases, and, even if given in full doses, as it should be, is well borne.

Six or eight ounces of milk should be given every two or three hours with the medicine. The patient must be watched, as he is dangerous to himself as well as to others, and a restraining sheet used if necessary. The bladder should be emptied every eight or ten hours, by catheter if needed, and the

bowels evacuated with an enema. Ice bags, or if these are not obtainable, cold cloths frequently renewed, should be applied to the head.

When the patient grows quiet and drowsy, the room should be darkened and kept quiet; and once he is asleep, care should be taken not to waken him. Usually he wakes after six or eight hours, and then his bladder should be attended to, milk administered, and, if he is still restless and delirious, the chloral and bromides be renewed. If he is quiet and rational, the trional and urethane will speedily renew his sleep.

Nourishment should be rapidly increased as his mental condition improves, but plenty of milk will be found to be of advantage both for his nervous condition and his kidneys. During convalescence a stimulating tonic will be of service. I have never found it necessary or advisable to resort to whiskey in these cases.

Correspondence.

LETTER FROM TORONTO.

Opening of New Medical Laboratories of Toronto University.—Consolidation of the Medical Faculties of Trinity and Toronto.—Professor Sherrington's Address.—Professor Osler's Address.—Conferment of Degrees, Honoris Causa.

TORONTO, October 10, 1903.

To employ the phraseology of Dr. Reeve, Dean of the Faculty of Medicine in the University of Toronto, there was solemnized in this city on the first and second days of October a "double consummation." The occasion was the formal and official opening of the new medical laboratories of Toronto University and the first public appearance of the two medical faculties of Trinity and Toronto as one. On the afternoon of the first the members of the faculty and their friends gathered together in the North Lecture Room, where Professor Charles Scott Sherrington, of the University of Liverpool, delivered the opening address. After the formal presentation of the keys of the new building by Dr. Hoskin, chairman of the board of trustees, to Dr. Loudon, the president of the university, the following representatives were introduced from sister universities in the United States and Canada: Professor Welch, of Johns Hopkins; Professor R. H. Chittenden, of Yale; Professor T. G. Roddick, M. P., of McGill; Professor A. C. Abbott, of the University of Pennsylvania; Professor J. P. McMurrich, of the University of Michigan; Professor L. F. Barker, of the University of Chicago; Professor Roswell Park, of the University of Buffalo; Senator Sullivan, of Queen's University; Professor William Osler, of Johns Hopkins; Professor Keen, of Jefferson Medical College, Philadelphia; Pro-

fessor J. George Adami, of McGill University, Montreal. Professor Sherrington's address was a most scholarly one, reviewing the history of medicine and its present position. He said that there must be organization in science as well as in industry, and stated that three kinds of workers must cooperate, in order that the community might draw the full benefit from science. There was first the investigator, then there was the teacher for the distribution of the knowledge acquired by the investigator, whose duty it was to diffuse this knowledge. Finally there was the applier of natural knowledge, which made science directly serve some practical needs. At the conclusion of Professor Sherrington's address there followed short congratulatory addresses, by the various representatives from sister institutions, upon the completion of these new buildings. On the evening of the first day Professor Osler, of Johns Hopkins, delivered the time-honored opening lecture to the students. While he was not sure of the value of this kind of a lecture and thought that the old custom might be abolished, he felt proud to be in a position to deliver it upon this occasion. He congratulated the two medical colleges upon their amalgamation, and was especially pleased to be present at the opening of the new medical laboratories. He paid a handsome compliment to Dr. A. B. MacCallum, professor of physiology in Toronto University, who, he said, had won a world wide reputation from his scientific investigations. He thought it not too much to look forward to the time when Toronto would absorb Queen's, at Kingston, and the Western University, at London; and he urged that these institutions might become clinical schools in affiliation with the university of the Province. At the conclusion of Professor Osler's address, short addresses were delivered by Dr. Reeve, dean of the medical faculty, and Dr. J. A. Temple, formerly dean of the Medical Department of Trinity University. Dr. Temple considered that they were doing a grand thing for medicine in the Province of Ontario by amalgamating these two medical institutions.

On the afternoon of the second of October there was held a special convocation in Toronto University for the purpose of conferring the degree of LL. D., *honoris causa*, upon the following gentlemen: William Williams Keen, of Philadelphia; William Henry Welch, of Baltimore; William Osler, of Baltimore; Russell Henry Chittenden, of Yale University; Charles Scott Sherrington, of the University of Liverpool. A degree, *in absentia*, was also conferred upon Henry Pickering Bowditch, professor of physiology in Harvard University. In the evening a banquet was given by the faculty of medicine to the visiting delegates from sister institutions. Dr. Loudon, president of the university, presided,

while Professor Ramsay Wright, vice-president of the university, acted as toast-master. One of the principal speakers in the evening was Mr. Alfred Moseley, C. M. G., chairman of the Educational Commission, which is now on a visit to the United States and Canada. Professor Abbott, of Philadelphia, and Professor Barker, of Chicago, delivered special addresses to the students on the morning of the opening day.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

SEMIANNUAL MEETING HELD IN NEW YORK, OCTOBER

13TH AND 14TH.

In so far as there might have been any element of the experimental in this semiannual meeting, only the second in the society's long existence, it was doubtless done away with by the call for a special meeting for Tuesday evening, to act upon the proposal to confer plenary power upon the conference committee to compose the differences between the society and the New York State Medical Association and arrange for a consolidation of the two organizations. But without that there would hardly have been anything in the nature of an experiment, as was shown by the first semiannual meeting, held two years ago. Thanks to the abatement of last week's flood, there was no impediment in the way of visitors to the city, and the attendance from all parts of the State was large.

THE SCIENTIFIC SESSIONS.

The scientific sessions of the society contained much valuable matter. On Tuesday morning, October 13th, the first paper was read by Dr. J. B. Deaver, Jr., of Philadelphia, on Hepatic Drainage. It was discussed at some length by Dr. Van der Veer, of Albany; Dr. G. R. Fowler, of New York; Dr. Maass, of New York; Dr. Ford, of Utica, and Dr. A. Jacobi, of New York. Dr. Deaver closed the discussion.

Next came an excellent paper on the Treatment of Certain Classes of the Underfed, by Dr. W. S. Ely, of Rochester. Dr. E. B. Angell, of Rochester; Dr. A. Jacobi, of New York, and Dr. E. D. Fisher, of New York, took part in the discussion. The Faculties of the Mind Not Understood, and Not Used, with Special Reference to the Curability of Epilepsy, was the title of a paper by Dr. M. A. Veeder, of Lyons. Discussion by Dr. E. D. Fisher, of New York, and Dr. Angell, of Rochester. The next paper on the programme, Evolution as Affecting Morbid Processes, by Dr. M. A. Booth, of Elmira, was read by title. Vaccination and the Law was the title of a paper read by Dr. Nelson G. Richmond, of Fredonia, which led to some remarks by Dr. J. Roe, of Rochester, and Dr. A. Jacobi. Dr. Glentworth R. Butler, of Brooklyn, was to have read a paper on the Inter-

nal Secretions; this, however, was withdrawn. Otitic Serous Meningitis, Lumbar Puncture, Recovery, was the title of a paper read by Dr. Francis Huber, of New York. It was discussed by Dr. A. Jacobi, and Dr. Angell. The morning session then closed.

The afternoon session was devoted to a symposium on the Röntgen ray. The first paper, On the Therapeutic Uses of the Röntgen Ray, was read by Dr. A. D. Bevan, of Chicago. This was followed by a paper on the Diagnostic Value of the Röntgen Ray, by Dr. C. L. Leonard, of Philadelphia, and by Further Observations Upon the Treatment of Sarcoma with the Röntgen Ray, by Dr. W. B. Coley, of New York. A general discussion followed, in which Dr. G. Hopkins, of Brooklyn; Dr. Ford, of Utica; Dr. Van der Veer, of Albany; Dr. Lee, of Brooklyn; and Dr. L. Duncan Bulkley, of New York, participated.

While waiting for an address by the Honorable William Goodrich, a volunteer paper, by Dr. S. G. Tracy, of New York, on Radium and Medicine, was read. The Honorable William W. Goodrich, Presiding Justice, Appellate Division of the Supreme Court, then delivered an address on the Legal Status of the Röntgen Ray, with which the afternoon session terminated. Abstracts of the papers will be published later, and some of them will appear *in extenso* in these columns.

THE SPECIAL MEETING.

In the evening a special meeting was held to consider the long standing subject of the schism in the medical profession of the State of New York. About a hundred members were present to vote on the question which should compose or perpetuate the differences heretofore existing.

The president, Dr. A. T. Bristow, in opening the meeting, referred to the fact that the American Medical Association, at its last annual meeting, at New Orleans, had practically done away with all obstacles to a reconciliation between the Medical Society of the State of New York and itself. Committees formed by the New York State Medical Association and the Medical Society of the State of New York, respectively, had at length arrived at a basis of reunion, and all that remained was for the society to support these committees with a favorable vote.

The secretary, Dr. F. C. Curtis, then read a communication from the New York State Medical Association asking for the appointment of a committee of five to confer with a similar committee appointed by the Association, with full powers to effect a union on suitable terms.

Dr. D. B. St. John Roosa introduced the subject by saying: "As one of those who have lived long enough to see the beginning and, I hope, will live long enough to see the ending of this controversy that has been carried on so long, I have the pleasure of offering the following resolution, which, I think, will have the vote of every member of the Medical Society of the State of New York:

"Whereas: The New York State Medical Association, at a recent special meeting duly assembled, has, by unanimous vote, appointed a committee, with full power, to meet with the similar committee of the Medical Society of the State of

New York to arrange for the unification of the two organizations under the corporate name of the Medical Society of the State of New York; therefore, be it

"Resolved: That the committee of conference of the Medical Society of the State of New York, already appointed, be given power equal to and commensurate with the powers recently granted the committee created by the New York State Medical Association for the purpose of unifying the two State medical societies into the Medical Society of the State of New York."

The resolution was seconded by Dr. W. G. Macdonald, of Albany, who in a speech of some length expressed his conviction that of all the great achievements of the society the work now before them would in the future be regarded as the greatest. There seemed for a moment a suggestion of possible pitfalls, when Dr. F. G. Sturgis asked whether the proposed course would not make the society responsible for the debts of the association. Dr. Frederick Holme Wiggin, however, replied as its treasurer, that the association had assets far in excess of its liabilities, and so the threatened tempest was averted. The resolutions were carried unanimously amid loud and prolonged applause.

THE PROCEEDINGS OF WEDNESDAY

began with a Description of the Present Status of the New York Hospital for the Treatment of Incipient Tuberculosis, by Dr. Willis G. Macdonald, of Albany. No discussion ensued. Dr. R. H. M. Dawbarn, of New York, then read his paper on the Technique of Operations on the Tongue, which was discussed by Dr. A. T. Bristow, of Brooklyn; Dr. Van der Veer, of Albany; Dr. W. G. Macdonald, of Albany, and Dr. A. E. Gallant, of New York. A paper on Potable Waters, by Dr. E. S. Willard, of Watertown, came next in order, and was commented on by Dr. F. G. Curtis, of Albany. This was followed by a paper on Conservation in Pelvic Infections, by Dr. John O. Polak, of Brooklyn, which elicited no discussion. Disappointment was evidence that Dr. D. Bovaird, of New York, did not put in an appearance to read his paper on the Question of the Relation between Human and Bovine Tuberculosis. Dr. A. Jacobi, of New York, next read a paper on Dosage, which we hope to be able to present *in extenso* in an early number. Dr. J. W. Brannan, of New York, followed with a paper on the Dispensary Treatment of Tuberculosis, discussed by Dr. James Miller, of New York; and Dr. E. H. Bartley, of Brooklyn, closed the session with a paper on the Causes and Prevention of Infant Mortality in Nurseries and Asylums. Dr. George Woolsey's paper on the Surgery of Tumors of the Spinal Cord was not read.

The afternoon session was devoted to a Symposium on Typhoid Fever, but one paper foreign to this subject, viz., that of Dr. A. F. Erdmann, of Brooklyn, on a Modified Allis Inhaler, was read.

The symposium began with a paper by Dr. H. A. Fairbairn, of Brooklyn, on A Logical Definition of Typhoid Fever. Dr. H. L. Elsner, of Syracuse, read a paper on the Anomalies and Difficulties of Diagnosis in Typhoid Fever; and Dr. Eg-

bert Le Fevre, of New York, one on the Management and Treatment of Typhoid Fever. Dr. L. Colville, of Ithaca, then read a paper on the Ithaca Epidemic, and followed it by a series of stereopticon illustrations, showing (1) A graphic scale of the epidemic, day by day; a scale of deaths day by day; and a series of personal records day by day; (2) A plan of Ithaca; (3) A plan of the epidemic plot in the city; (4 and 5) two views showing the contaminating conditions at the backs of houses in Etna and Varna respectively; (6) flooded Ithaca; (7) sections showing the pollution levels in Six Mile Creek; and (8) Barnes's well, showing how the contamination occurred by sewage infiltration. This was followed by an excellent address on the lessons of the Ithaca epidemic, by George A. Soper, Ph. D., of the State Department of Health; and finally, Dr. Cyrus W. Field, of New York, read a paper on the Epidemiology of Typhoid Fever. Owing to the lateness of the hour but little discussion ensued, but Dr. Heffron, of Syracuse, and Dr. Jacobi spoke.

At the close of the meeting, Dr. Jacobi said that this had been a good scientific meeting, well attended, and that the papers had all been good—"all," he corrected himself, with superfluous modesty, "except my own." He then went on to say that the most important business of the meeting was the decision arrived at the previous night in reference to unification, and stated that the success of the special meeting, as well as of the scientific proceedings, was undoubtedly due in a very large degree to the president, Dr. Bristow, whose energies called for the thanks of the society. The motion having been duly seconded, was carried unanimously.

The registration at the meeting amounted to 257. Next week we purpose giving abstracts of the more important papers.

(To be continued.)

Therapeutical Notes.

Intestinal Lavements with Neutralized Hydrogen Peroxide.—*Revue française de médecine et de chirurgie* for June 16th, says these lavements are strongly recommended by Roger, Rocaz, and others. Hydrogen peroxide being acid, should be neutralized by the addition of ten to twelve parts of Vichy water; or to 100 parts of the peroxide, 900 parts of the following solution may be added:

- R Sodium chloride.....5 grammes (75 grains);
- Sodium phosphate.....3 grammes (45 grains);
- Sodium bicarbonate...50 centigrammes (7½ grains);
- Water (boiled).....30 ounces.

M. For enemas.

A quart may be injected into an adult, and in mild cases, two daily injections are sufficient.

For Toothache.—The general practitioner, says *Presse médicale* for August 19th, is sometimes asked to prescribe for toothache and will find the following application useful in such emergencies:

- R Chloral hydrate.....5 grammes (75 grains);
- Cocaine hydrochloride.....1 gramme (15 grains);
- Camphor5 grammes (75 grains);
- Alcohol10 drops.

M. Apply to the cavity a tampon of cotton with a few drops of the solution.

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Editor. Associate Editor.

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NEW YORK, SATURDAY, OCTOBER 17 1903.

UNIFICATION VIRTUALLY ACCOMPLISHED.

The special meeting of the Medical Society of the State of New York held on Tuesday evening of this week took such action as beyond any reasonable doubt insures harmony among the medical profession of the State. Many of the constituent county societies had sent communications urging that such action be taken, but it was so manifest that it would be that these communications were not even read. Hosack Hall in the Academy of Medicine's building, the largest hall in the structure, was filled. With a few lucid remarks President Bristow stated the situation, and immediately Dr. D. B. St. John Roosa spoke as follows:

As one of those who have lived long enough to see the beginning and, I hope, will live long enough to see the ending of this controversy that has been carried on so long, I have the pleasure of offering the following resolution, which, I think, will have the vote of every member of the Medical Society of the State of New York:

Whereas: The New York Medical Association, at a recent special meeting duly assembled, has, by unanimous vote, appointed a committee, with full power, to meet with the similar committee of the Medical Society of the State of New York to arrange for the unification of the two organizations under the corporate name of the Medical Society of the State of New York; therefore, be it

Resolved: That the committee of conference of the Medical Society of the State of New York, already appointed, be given power equal to and commensurate with the powers recently granted the committee created by the New York State Medical Association for the purpose of unifying the two State medical societies into the Medical Society of the State of New York.

Dr. Willis G. Macdonald, of Albany, seconded the resolution in an earnest and telling speech,

and without discussion it was carried unanimously. Both these gentlemen had been cheered to the echo, and the announcement of the vote was received with enthusiastic applause. The adjournment followed at once, and these men hugged each other for joy. Thus happily ends the twenty years' schism in the State of New York, and our brethren in other States will no longer need to wonder at the anomaly of the past.

THE ALLEGED PHYSICAL DETERIORATION OF THE BRITISH PEOPLE.

The alarmist, like the poor, is always with us. In his latest aspect he proclaims that the people of the United Kingdom have undergone notable physical deterioration within recent years. "American dyspepsia" has no terrors for us, we do not see the ruin of France in a diminished birth rate, and we have serious doubts as to the physical deterioration of the British. However, some British publications on the subject treat the matter quite seriously, and the director general of the Army Medical Department, Sir William Taylor, has published a report on it in which he asks for the appointment of a commission to inquire into the matter.

General Sir Frederick Maurice seems to have first called public attention pointedly to the subject in an article entitled *National Health: a Soldier's Study*, published in the January number of the *Contemporary Review*. He points out that something like sixty per cent. of the men who apply for enlistment in the British army either are rejected at the outset as physically defective or are shortly discharged as unlikely to make efficient soldiers. The question, therefore, has come up primarily from the military point of view, and this fact leads the *Journal of Tropical Medicine* to remark that most of the British recruits are drawn from the class of unskilled laborers, "and so from that portion of the population living in or close to the actual poverty line." We judge, then, that our contemporary attributes to insufficient nutrition such physical deterioration as may actually exist among the British people. This is probable enough, but one of the writer's accompanying statements seems to call for comment. It is this: "Also, as has been pointed out by a contemporary, the readiness with which the cheap American loaf is preferred to our English bread

must have a marked bearing on the case; for the former, although a larger loaf for the money, yet does not contain the same amount of nutritious material." Possibly "the cheap American loaf" does not, on chemical analysis, come quite up to the British standard, but it has the advantage of being palatable as a rule, which the general run of English bread certainly is not—that is, if judged by our American taste—and we think it is generally admitted that palatability is important in such an essential article of food as "the staff of life."

As we have already intimated, we do not feel at all convinced of the physical deterioration of the English, and we are quite in accord with the *Lancet* when it says, in its issue for September 12th: "We hope that the public will . . . not take it for granted, upon ignorant or irresponsible statements, that the vitality of their countrymen is hopelessly lowered."

TRYPANOSOMIASIS AMONG HORSES IN THE PHILIPPINES.

The Biological Laboratory of the Bureau of Government Laboratories of the Department of the Interior has recently issued a *Preliminary Report on Trypanosomiasis of Horses in the Philippine Islands*, by Dr. W. E. Musgrave, acting director of the Biological Laboratory, and Mr. Norman E. Williamson, assistant bacteriologist to the Bureau of Government Laboratories. The report is a valuable contribution to our knowledge of trypanosomatous infection, though the printed pamphlet shows somewhat defective proof reading. The authors admit surra, nagana, tsetse fly disease, mal de caderas, mal de coit, dourine, pjudi, etc., as synonyms of trypanosomiasis, but they probably do not mean to imply that trypanosomiasis always takes the form of disease best known by any one of these names. These various affections—if, indeed, they do vary—have so often been described that it seems unnecessary at the present time to describe them for our readers; it will suffice to deal with sources of infection and with means of prevention.

The mode of infection is unknown, say our authors, but they think that the parasite is probably introduced by the bite of some suctorial insect, such as a fly or a mosquito, for the trypanosoma cannot long survive outside some living animal organism. So far as the Philippine epizootic is concerned, cat-

tle and carabao have rarely if at all been attacked; in examinations extending over a period of six months such animals have not been observed to show symptoms of trypanosomiasis, and the parasite has not been found in them. The authors' investigations do not bear out the theory that the disease was conveyed to China by British troops from India and from China to the Philippines by American troops. "So far as direct evidence goes," the authors say, "trypanosomiasis is a wound disease. The infectious agent must come in contact with a wounded surface, either skin or mucous membrane, and when these requirements are fulfilled, no matter how, in susceptible animals, the disease is the result." They further conclude that the action of the fly is mechanical, and that the insect does not serve as an intermediary host; therefore the common fly, which does not bite, is dangerous, since it may come in contact with a traumatic surface. "If it were possible," the authors go on to say, "to destroy every infected animal in the Philippine Islands and to protect the remaining ones from infected flies for forty-eight hours, there would never be another case of 'surra' in this country unless it were introduced again from an infected locality. . . . Biting flies and other insects would be harmless, because there would be no infected material for them to feed upon."

ON ENTHUSIASM AND LOGIC.

It is interesting to note how, in the course of centuries, the meaning of individual words is liable to vary. The more usual history is that, through use, there has been a transition from a higher meaning to one that is lower and more commonplace. But there are exceptions, and one of these is brought to mind by a consideration of certain happenings in medical science at the present time. In the earlier part of the seventeenth century when it first came into general employment, the word "enthusiasm" had anything but the respectful meaning that it now enjoys. Nowadays it has a wholly laudable signification; we respect enthusiasm, regard it as something akin to nobility of mind that a man should be so filled with his subject that his soul is fired and his life devoted to the advancement of the same; then it had the very reverse; it was regarded as a state of being so over-occupied with one idea or doctrine

as not to be wholly rational. Compare, for example, Emerson's nineteenth-century dictum, that "Nothing great was ever achieved without enthusiasm," with that of John Locke of the seventeenth century that, "Enthusiasm is founded neither on reason nor divine revelation, but arises from the conceits of a warmed or over-weening imagination." We have, by-the-by, still a survival of the older signification, and an indication of the change that has occurred, in the somewhat disdainful manner in which we regard the 'enthusiast' as compared with the man who is 'filled with enthusiasm.' There is, by-the-by, a curious parallel in our use of the terms 'zealot' and 'zeal' respectively.

It is unnecessary to state that the change in meaning has come about by a natural process. Examined closely, whether we regard enthusiasm in a given instance in accordance with the earlier or the later meaning, depends upon the chain of events from which it has had its origin. Once "possessed"—to hark back to the old polytheistic days when the Greek original of the word was first coined,—it depends upon the nature of the entering god whether the results be worthy of admiration or the contrary, for, once "possessed," the temper of all enthusiasts is the same. It is, to quote Henry More, the Platonist, in that quaint and delightful work of his the *Antidote Against Atheism*, "that temper that disposes a man to listen to the Magisterial Dictates of an over-bearing Fancy more than (*sic*) to the calm and cautious insinuations of free Reason."

The history of the last few years in medical and, more particularly, in bacteriological or microbiological science, throws a suggestive light upon the relationship between the pristine and the present meaning of the term. Nothing, for example, has been more remarkable in the medical history of our generation than the keen interest with which the best minds in various countries have thrown themselves into bacteriological investigation. The result has been a veritable renaissance in medicine. Here enthusiasm has surely achieved great results. Yet, at the same time, we have seen and we continue to see that some of those who have been keenest in aiding the advance, some of those who themselves have worked the hardest and gained the most brilliant victories, have shown

themselves strangely apt in their eagerness to overstep the mark, enunciating doctrines which cannot be substantiated, and coming forward as the apostles of some one or other gospel which men of quiet mind recognize instinctively as being false.

The examples which could be brought forward in support of this statement are painfully numerous. Each reader can surely, without difficulty, recall more than one. A very remarkable list might be quoted in connection with the long series of announcements which have been made with regard to the discovery of parasites of cancer and other forms of malignant growth. Men already favorably known as careful observers, men who have already published brilliant work, have, one after the other, announced the discovery of a microbe in connection with this terrible condition. Had they, one and all, described like appearances, we could have no doubt—the number and reputation of the observers is so great that it would command respect. Unfortunately no two independent observers have been wholly in harmony. Some described bacteria, but these were soon discarded; others, appearances of the nature of vegetable organisms—yeasts; others, stages in the development of an infusorian type; others, a cycle, or rather cycles, of forms which they would have it could only indicate the presence of sporozoa; while one, not so far distant, sees a cycle of forms which at one stage have vegetable, at another animal affinities. Clearly there is something wrong, and when other equally capable and careful observers are able to show that the majority of the forms described, if not all, correspond with the results of degenerative processes occurring in the cells, the only satisfactory explanation is that, capable as are the observers, their enthusiasm has led them astray. They have undoubtedly seen something within the cells, they have convinced themselves that what they have seen are independent forms of life, and, once convinced, they have become so filled with the discovery, so impressed with the magnitude of what such a discovery opens up, that they have become possessed.

This, let it be repeated, is but one of a long series of examples which might be given from various branches of medical study—so long a series that there is little wonder that the profession as a whole, not to mention the thoughtful members of the laity, is becoming skeptical, not knowing where the truth

is to be sought. We are prepared to find the unlearned multitude carried away by such enthusiasms as Christian science, but when men of light and learning and leading are so carried away that they cannot reason aright, it is time to call halt, if not to re-echo the grim advice of the French philosopher—"Surtout, point de zèle!", however much, in our heart of hearts, we may appreciate a right enthusiasm.

But can zeal be brought under control? To some extent it can, or, rather, the more reason is exalted, the less opportunity is there for enthusiasm to lead astray. What we would urge is that the study of logic as an exercise for the mind in sane thinking has been altogether too much neglected by our profession in general. It would be well, then, that hand in hand with the increasing development of medical research, increasing stress be laid upon instruction in how to reason aright. J. G. ADAMI.

A HARDSHIP FOR THE "MEDICINE MAN."

According to press reports from San Francisco, Kalapine, an Indian medicine woman of the Yosemites, having lost a third patient under her care, will, in accordance with the usages of the tribe, be put to death before the next summer gathering of the tribe—i. e., unless she succeeds in eluding the vigilance of her compatriots or is protected by the government of the white man. The last instance of the carrying out of this law was in the case of Indian Bullock, about 1895, who was put to death for losing a third patient, and then buried with great honors. Three Indians were arrested for the murder, and in spite of their protestations that they had only done the duty devolving on them by the laws of the tribe, were convicted, and are now serving out a sentence of twenty years. On the whole, the practice of medicine in civilized communities is better than that among savage tribes in more senses than one!

A BLOW TO THE FAITH CURISTS.

Already we hear the cries of the wounded suffering from Judge Haight's decision in the Court of Appeals confirming the sentence of the unfortunate "healer" who allowed his little daughter to die of bronchopneumonia, when she might have been saved by competent medical care. The learned judge does not express an opinion as to the value of prayer or the other methods used by the various quacks, but simply interprets the law, which seems to be explicit on the subject. Right minded people will rejoice at this fact, but we look forward with much misgiving to the forma-

tion, in the near future, of a well organized lobby to attempt to wipe from the books one wise piece of legislation.

PREMONITORY SYMPTOMS OF CARDIAC WEAKNESS IN DIPHTHERIA.

It stands to reason that we are in a better position to combat grave weakness of the heart if we have some warning of its approach. Bontin (*Thèse de Paris*, 1903; *Berliner klinische Wochenschrift*, September 28th) thinks that in diphtheria vomiting and loss of appetite constitute such a warning.

TATTOOING AND PROSTITUTION.

Bergh, of Copenhagen (*Monatshefte für praktische Dermatologie*, xxxv, 8; *Berliner klinische Wochenschrift*, September 28th), declares that few women other than public prostitutes are found to be tattooed, and those few are clandestine prostitutes. We hope that no arbitrary conclusion will be drawn from this statement, for doubtless many a silly but virtuous girl has had herself tattooed.

COLOR BLINDNESS AND THE ELEVATED MOTORMEN.

The fact that the managers of the elevated railway think it wise to test the vision of the motormen frequently, and the further fact that they do test it in the interest of the public safety, seem to be taken as grievances by the men, who profess to regard the repeated testing as a pretext for "weeding out" the older ones among them. This amounts to a contention that, if once a man wins a berth, he is entitled to retain it *ad infinitum*, regardless of the risk entailed by his subsequent infirmities.

Obituary.

WILLIAM J. DALE, M. D.,
OF NORTH ANDOVER, MASS.

Dr. Dale died last week at the advanced age of eighty-eight. He achieved distinction during the civil war as the surgeon general of Massachusetts troops, on the staff of Governor Andrew. His energy, his integrity, his ability as an organizer, and his discernment in the selection of medical officers made him conspicuous among the great medical men that the war called into public life. Although always manifesting proper respect for the military authorities, he ever maintained a determined stand in the interest of his profession. He once violated positive military orders by going on board a troop ship in Boston harbor and preventing its sailing for the South, because he found that infectious disease had broken out on the ship, but he was highly commended for his action on that occasion. Surgeon General Dale was an admirable example of the firm and intelligent medical man.

News Items.

Society Meetings for the Coming Week:

MONDAY, October 19th.—New York Academy of Medicine (Section in Ophthalmology); New York County Medical Association; Hartford, Conn., Medical Society; Chicago Medical Society.

TUESDAY, October 20th.—New York Academy of Medicine (Section in General Medicine); Buffalo Academy of Medicine (Section in Pathology); Ogdensburg, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Medical Society of the County of Kings, N. Y.; Baltimore Academy of Medicine.

WEDNESDAY, October 21st.—Woman's Medical Association (N. Y. Academy of Medicine); Medicolegal Society, New York; Northwestern Medical and Surgical Society of New York (private); New Jersey Academy of Medicine (Newark); Philadelphia County Medical Society; New York Society of Dermatology and Genitourinary Surgery (private); New York Academy of Medicine (Section in Genitourinary Diseases).

THURSDAY, October 22d.—New York Academy of Medicine (Section in Obstetrics and Gynecology); New York Orthopædic Society; Brooklyn Pathological Society; Brooklyn Society for Neurology; Roxbury, Mass., Society for Medical Improvement (private); Pathological Society of Philadelphia; Church Hill Medical Society of Richmond, Va.; New York Celtic Medical Society.

FRIDAY, October 23d.—New York Clinical Society (private); New York Society of German Physicians; Yorkville Medical Association, New York (private); Philadelphia Clinical Society; Philadelphia Laryngological Society.

SATURDAY, October 24th.—New York Medical and Surgical Society (private); Harvard Medical Society, New York (private).

NEW YORK, CITY AND STATE.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending October 10, 1903:

DISEASES.	Week end'g Oct. 10.		Week end'g Oct. 3.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	71	4	69	2
Diphtheria and croup	293	37	284	32
Scarlet fever	91	6	85	2
Smallpox	4	0	0	0
Chickenpox	24	0	15	0
Tuberculosis	282	136	279	150
Typhoid fever	122	19	89	15
Cerebrospinal meningitis ..	..	5	0	2
Totals	887	207	821	203

Change of Address.—Albert M. Scully, 261 West Forty-fifth Street. Dr. Wm. Boehm, to 1043 Lexington Avenue.

A Women's Health Protective Association in Rochester.—The Rochester women have formed an association for the special discouragement of spitting in public places, following the lead of New York and Montreal.

One Result of the Recent Storm.—The store-room in the basement of Bellevue Hospital was flooded to the depth of about three feet, as a result of the recent heavy rains, and a damage done to stores estimated at over \$5,000. The hospital grounds looked like a lake.

A Special Church Service for Medical Men.—Next Sunday evening, the evening of St. Luke's Day, a special church service for physicians will be held in Calvary Church, Fourth Avenue and Twenty-first Street. Bishop Potter will preside, and Dr. William H. Thomson will deliver an address.

New Hospital in Buffalo.—The Sisters of Mercy are planning the erection of a new hospital in the South Park district of Buffalo, where an emergency institution is badly needed owing to the number of railway accidents. Contributions may be sent to the Mount Mercy Home, 1475 Abbott Road, an establishment recently completed by the sisters.

The Medicolegal Society will hold its opening fall meeting at the Waldorf-Astoria on October 21st. Papers will be read as follows: Dr. Charles G. Cumston, of Boston, Mass., Pregnancy and Crime; W. H. S. Monck, Esq., of the Dublin Bar, Wife Beaters and Their Punishment; Clark Bell, Esq., The American Congress on Tuberculosis at the World's Fair of 1904, at St. Louis. Secretary, Samuel K. Thomas.

The New York Academy of Medicine held a stated meeting in Hosack Hall on Thursday, the 15th instant, when Dr. John S. Thacher delivered the Wesley M. Carpenter Lecture on The Diagnosis of Fevers. The section on Orthopædic Surgery met on the 16th. The section on Ophthalmology will meet on the 19th; the section on General Medicine on the 20th; the section on Obstetrics and Gynecology on the 22nd; and the section on Laryngology and Rhinology on the 28th.

The Long Island Throat Hospital and Eye Infirmary held its fourteenth annual meeting on the sixth instant, Dr. C. T. Schondelmeier, the president, occupying the chair. The treasurer's report showed a balance of \$1,376. A total of 1,407 cases were treated during the year. The following officers were elected: President, Dr. C. T. Schondelmeier; first vice-president, Richard W. Preston; second vice-president, Adolph Vanrein; treasurer, William A. Wheeler; secretary, Dr. D. Morris Wooley.

The Central New York Alumni Association of the Albany Medical College held its third annual banquet on September 30th at Bagg's Hotel, Albany. Dr. Tefft acted as chairman and introduced Dr. R. F. Stevens of the class of '41 as the oldest physician in attendance. Among those present, were Dr. A. W. Hedden, of Syracuse, Dr. Scully, of Rome, Dr. Fairchild, of Syracuse, Dr. Hagerdorn, of Gloversville, Dr. Hollis, of Laconia, Dr. Hunt, of Little Falls, Dr. Slingerland, of Fayetteville, Dr. Hudson, of Auburn, and Dr. Brewer, of Utica.

The Medical Association of the Greater City of New York held a stated meeting at the Academy of Medicine, 17 West Forty-third Street, on Monday, October 12th, at 8.30 p. m. The order of exercises included A Few Medical Observations at the International Congress at Madrid and Elsewhere in Europe, by the president, Dr. Andrew H. Smith; Hydrophobia and that Sort of Thing, by Dr. Reynold Webb Wilcox, including a report of cases in New York city and an account of a visit to the Pasteur Institute in Paris; and a General Discussion by the members. The vice-president of the association is Dr. Ransford E. Van Gieson; recording secretary, Dr. P. Brynberg Porter; corresponding secretary, Dr. Frank C. Raynor; treasurer, Dr. Augustus D. Ruggles.

Another Swindler of the Profession.—Dr. Henry Reiter informs us that a person calling himself Dr. Schwartz, is soliciting money from physicians on the lower East Side, stating that he is a European graduate and has received a communication from the State examining board that he may practise here without further examination. He does not, however, produce the letter. He is able to talk with some fluency on external strabismus and optic paralysis, and is generally conversant with the names of physicians in the neighborhood of his latest intended victim. A pseudo-druggist is also working the same field.

Faith Cures Held to Be Criminal.—The Court of Appeals at Albany has sustained the conviction of a faith healer, one of the followers of a notorious Western preacher, who in 1901 was sentenced to \$500.00 fine or 500 days' imprisonment for criminal neglect in failing to secure medical attendance for his sixteen months' old adopted daughter, who subsequently died of bronchopneumonia. The best legal talent had been retained by the various faith cure sects to defend the accused, and the adverse decision is considered by them to be of far reaching importance. The opinion was written by Judge Haight.

Health Talks in Penn Yan.—A series of health talks to the public has been arranged in Penn Yan by local and out of town physicians and the following is the programme, so far determined: October 21st, Dr. E. J. Bissell, of Rochester, Care and Use of the Eyes; November 4th, Dr. Joseph T. Cox, of Penn Yan, Healthy Homes; November 11th, Dr. Eva Allerton, of Rochester, Nursing the Sick; November 18th, Dr. Charles E. Doubleday, of Penn Yan, Tuberculosis; March 23rd, Dr. William Austin Macy, of the Willard State Hospital, Nervous and Mental Breakdown; March 30th, Dr. Herbert J. McNaughton, of Penn Yan, Care of the Teeth; April 6th, Dr. J. M. Lee, of Rochester, Reparative Surgery; April 13th, Dr. Harry S. Tuthill, of Penn Yan, Contagious Diseases.

Camp Life for the Insane.—The plan of a summer camp for the insane has been successfully tried by Dr. Eugene H. Howard, superintendent of the Rochester hospital, under direction of the State commission in lunacy. The camp was situated on the shore of Lake Ontario in the town of Webster, eight miles from Rochester. Only harmless and partly recovered patients were allowed to occupy the thirty tents erected on four acres of ground surrounding an old fashioned cottage, with barns, and seventy-two men and one hundred and twenty-eight women were cared for with such excellent results that Dr. Howard has decided to make the innovation permanent. The demeanor of the patients, relieved from restraint, was carefully watched and it was noticed that improvement was rapid.

At the Annual Meeting of the New York Obstetrical Society held Tuesday, October 13th, the following officers were elected for the ensuing year: President, Dr. G. W. Jannan; first vice-president, Dr. J. R. Goffe; second vice-president, Dr. Joseph Brettauer; recording secretary, Dr.

W. S. Stone; assistant recording secretary, Dr. H. C. Taylor; corresponding secretary, Dr. E. E. Tull; treasurer, Dr. J. Lee Morrill; pathologist, Dr. W. S. Stone.

The Death of Dr. David Franklin.—In accordance with a resolution unanimously passed at a meeting of the Harlem Medical Association on October 7, 1903, the undersigned respectfully present the following preamble and resolutions on behalf of the Harlem Medical Association:

Whereas, By the inscrutable ways of a Divine Providence, we have lost, in the death of Dr. David Franklin, one of our most loyal, conscientious, and faithful members, for many years the treasurer and a trustee, and at one time president of the Harlem Medical Association; therefore be it

Resolved, That we enter upon our records this minute of our lasting regret at his untimely death, and our deep appreciation of the many traits of his character which endeared him to all.

Dr. Franklin was known to us as a model of quiet patience, perseverance, and determination of character, and as one of Nature's noblemen: a skilful physician, a cheerful councillor, and a loyal friend. As a physician he was thorough, clear headed, and scientific, studying each and every case intrusted to his care with the patient minuteness of detail so requisite; and his large and successful practice bears every evidence of the success that follows such painstaking attention.

His faithful service as physician to the Orphan Asylum for twenty years abundantly shows his unswerving attention to duty. Not only were his services eagerly sought by those suffering, but he became endeared to those who knew him, and his counsel was often asked and as eagerly accepted as it was cheerfully given.

As a friend he was all that the name implies, ready to respond to any call made upon him, self-denying and self-effacing, tried, faithful, and true. Although taken from those who loved him at the very zenith of his career, when there was every reason to believe that there was a future of happiness and fame awaiting him, his all too short life brings to us all a lesson we may profit by. We shall ever bear him in fond remembrance and place this record of his manly, loyal, consistent, gentle, and true character upon our records, as they are engraven in our memories.

EMIL MAYER, M. D.,
Chairman;
RICHARD VAN SANTVOORD, M. D.,
MONTROSE R. RICHARD, M. D.,
Committee.

PHILADELPHIA AND PENNSYLVANIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

DISEASES.	Week end'g Oct. 10.		Week end'g Oct. 3.	
	CASES.	DEATHS.	CASES.	DEATHS
Smallpox	11	3	2	5
Diphtheria	82	11	60	8
Scarlet fever	84	2	70	0
Typhoid fever	78	9	76	7
Consumption .....	..	42	0	57
Cerebrospinal fever .....	..	3	..	..

This table shows an increase of forty-seven in the total of cases of contagious diseases as compared with the preceding week.

St. Luke's Hospital, South Bethlehem, Pa.—Hospital Day will be celebrated on Saturday, October 17th, at 3.30 p. m. An address will be delivered by Dr. Edward Wallace Lee, of New York, and a class of nurses will graduate.

New Trustee for Mine Hospital.—Governor Pennypacker has appointed W. G. Tulton, of Scranton, Pa., a member of the board of trustees of the State hospital for the northern anthracite regions.

Fresh Outbreak of Smallpox.—There has been another increase in the number of smallpox cases in Philadelphia, five cases occurring in one house. The whole force of the bureau of health was put to work, and the affected premises were rigidly disinfected and fumigated.

Philadelphia Hospital.—The nurses' infirmary of this institution is being thoroughly rebuilt and renovated. The room formerly used for the orthopædic ward is being transformed into an infirmary for the use of the large staff of resident physicians. Some of the vacancies among the head nurses have been filled by graduates from other institutions.

Dr. George W. Pfromm was elected clinical professor of applied therapeutics in the Medico-Chirurgical College in Philadelphia, at the last faculty meeting of that institution. At the same meeting, Dr. Judson Daland was nominated by the faculty for election by the board of trustees as professor of clinical medicine, and Dr. H. N. Christian was elected clinical professor of genitourinary diseases.

Consulting Staff to the Eastern Penitentiary.—In order to improve the administration of the Eastern Penitentiary of Pennsylvania, located in Philadelphia, a staff of consulting physicians has been appointed as follows: Surgeon, Dr. Robert G. LeConte; physician, Dr. Judson Daland; ophthalmologist, Dr. George E. de Schweinitz; ear, nose, and throat, Dr. Francis R. Packard; alienist, Dr. Horace Phillips. The positions are honorary ones.

The Philadelphia Pædiatric Society held a meeting on the 13th instant, at which Dr. D. J. Milton Miller presented a patient with Pseudohermaphroditism and abdominal tumor, and Dr. H. B. Carpenter one with bilateral stenosis of Steno's duct, and another with interesting cardiac signs. Papers were read by Dr. I. Valentine Levy on Congenital Dilatation of the Colon, and Dr. John H. Jopson on Subphrenic Abscess in Children. Secretary, Dr. Charles S. Weber, 1304 Pine Street.

A Menace to the Health of Children.—Attention has been called to the room which is used in the public buildings of the city of Philadelphia for detaining juvenile offenders, pending a judiciary decision. It is said that this room is unhygienic in the extreme, that its atmosphere is vitiated, and that the room is harboring the germs of disease. It is reported that some of the children detained in this room for breaches of the law have contracted typhoid fever, necessitating their removal to a hospital.

Demonstrators Elected at the Medico-Chirurgical College.—Dr. Mitchell P. Warmuth has been elected demonstrator of operative surgery, and Dr. S. Leon Gans, demonstrator of genitourinary diseases, in the Medico-Chirurgical College, of Philadelphia. Dr. Gans being also elected chief of clinic for genitourinary diseases in the Medico-Chirurgical Hospital.

For the Health of School Teachers.—The long hours and comparatively small pay which the school teachers of Philadelphia are receiving, has stimulated a crusade against these conditions. It is asserted that the long and onerous duties imposed upon the teachers are menacing their constitutions. A petition is being signed by the citizens of Philadelphia, asking for an improvement in these conditions.

Standing of Pennsylvania Medical Colleges.—The annual report of the State Board of Medical Examiners shows that the University of Pennsylvania students obtained the highest averages of the Philadelphia candidates in the examinations held last June for license to practise in Pennsylvania. Out of forty-nine examined, only one failed to pass. This percentage is also better than that of any other local institution, except the Women's Medical College, which sent fifteen applicants, all of whom passed. University of Pennsylvania graduates had the three highest individual averages, which were: Julius H. Comroe, 91.72; Lynn W. Deichler, 90.31; and Verner Nisbet, 90. The averages of all the examinations were as follows: University of Pennsylvania, 83.22; Women's College, 81.48; Jefferson, 79.45; Medico-Chirurgical, 79.37; Western Pennsylvania College, 78.63.

For the Protection of School Children.—The following communication from Dr. Edward Martin, Director of the Department of Public Health and Charities of Philadelphia, was sent to the Board of Education in this city, and referred to the Hygiene Committee: "We ask of your board the privilege of beginning a system of medical inspection in one of your schools. This system is one which has been found most successful in New York in discouraging truancy and preventing many of the minor diseases of childhood. The medical inspector calls once a week in the morning or at such time as is convenient to the Principal, inspects the children, prescribes the treatment for each child needing attention, sends home those absolutely requiring quarantine, receives reports of sickness in the homes of the children, and, when he believes that a child's mother is too ignorant or too careless to follow out his instructions, directs the visiting nurse to call and instruct the mother in the treatment of the child, or to treat the child in the home herself, if the child's condition is such that it is wrong for her to come into contact with the other children. Instead of dismissing a child who is found to be suffering with a minor contagious complaint, such as ring worm, pediculosis, or some forms of eye or skin disease, without being sure that the child will receive the proper attention, or be prevented from meeting his playmates on the school house steps, and thus

spreading the contagion, he is seen at the school by the medical inspector and treated on the spot by the visiting nurse, under the doctor's directions. The inspection takes about an hour a week for the entire school and the saving in school time to the individual child is enormous. It has been shown in New York that during one month nearly 900 children received attention for various causes, the greater percentage of which might have been serious if not taken care of at the right time. The teachers there have given every possible cooperation, and do not hesitate to say how much higher the standard of cleanliness has been since the nurses became a part of the inspection. Special notice has been taken of the condition of the head, and advice given in the home for the eradication of pediculi. The clothing also presents a marked change for the better. One such school inspection established in Philadelphia would prove, as in New York, of the greatest advantage to the pupils and go a long way towards helping to cure or preventing epidemics of children's diseases."

CHICAGO AND ILLINOIS.

Statement of Mortality for the Week Ending October 10, 1903, compared with the preceding week, and with the corresponding week of 1902:

	Oct. 10, 1903.	Oct. 3, 1903.	Oct. 11, 1902.
Total deaths—all causes.....	427	467	403
Principal causes of death—			
Acute intestinal diseases.....	46	51	44
Apoplexy.....	10	10	5
Bright's disease.....	25	46	26
Bronchitis.....	8	6	18
Consumption.....	49	55	48
Cancer.....	19	32	22
Convulsions.....	10	5	2
Diphtheria.....	16	8	6
Heart disease.....	32	32	31
Measles.....	0	1	..
Nervous diseases.....	19	30	20
Pneumonia.....	37	29	23
Scarlet fever.....	5	0	3
Suicide.....	5	9	14
Typhoid fever.....	5	16	22
Violence (other than suicide).....	37	29	27
Whooping cough.....	0	1	3

The Chicago Lying-in Hospital will have an addition at the southwest corner of Maxwell Street and Newberry Avenue, three stories high, twenty-five by sixty feet, built of pressed brick, and to cost some \$15,000.

For the Encouragement of the Bloodless Operation on the Hip.—It is rumored that Mr. Armour, of Chicago, is so pleased with the result of the recent operation on the congenitally dislocated hip of his little daughter, that he has decided to endow a clinic in many of the large hospitals in the United States and Canada. A specially salaried surgeon will be attached to each clinic, after having had facilities for the study of the operation, also at Mr. Armour's expense.

The Frances Willard National Hospital, to be conducted on strictly "temperance" lines, i. e., without the use of alcohol in any form, is now under way, the corner stone having been laid on the corner of Lincoln and Harrison Streets, Chicago, on September 28th by Mrs. Helen Parker, treasurer of the W. C. T. U. Applause greeted the quotation by Mrs. C. E. Bigelow of Mrs. Willard's statement that prohibition could not be established upon a firm foundation till the principle of non-alcoholic medication had been accepted.

Rush Medical College graduated the following students at the close of the summer quarter on October 5th: V. C. A. Bergstrom, M. S. Blatt, E. B. Bradley, F. R. Clapp, S. C. Darrock, D. J. Davis, C. H. Foreman, E. V. Hill, D. C. Huntoon, F. C. John, C. E. Johnson, R. E. Keating, T. J. Koerper, R. M. Lane, C. J. McMusker, J. J. McShane, W. B. Schwuchow, H. B. Shapiro, J. W. Viers, A. A. Weber, F. C. Yeck.

Infant Mortality.—While there were forty-two more infant deaths during the summer season of 1903—ended September 22nd—than during the previous summer, the total 1,647 was twenty-six less than the average of the summers since the census year 1900, and the death rate at all ages is the lowest ever recorded in Chicago for any summer.

The unusually low temperature of the season undoubtedly had much to do with this low rate—only 13.95 per 1,000 of the total population, all ages. The effects of high temperature on infant and child life are well understood, but the absence of hot weather is not of itself sufficient to account for the unbroken descent of the middle and lower lines of the diagram since 1893.

An improved milk supply, the antitoxine treatment of diphtheria and other causes often cited to account for the decrease of infant mortality are equally inadequate and the department is disposed to attach more importance to the education of mothers in the hygiene of the very young. The efforts of women's clubs and similar organizations in this education have been steadily growing during all this period of decreasing infant mortality, and it is believed this is the principal factor in giving the baby a better chance for life in Chicago.

GENERAL

The Hartford (Conn.) Medical Society, having recently expelled a member for undertaking contract labor, has refused to reinstate him, although he has repented and sought readmission.

The Northern Pacific Beneficial Association, having already constructed two hospitals at Brainerd, Minn., and at Missoula, are contemplating the erection of a third at Tacoma, Wash. The association has a reserve fund of over \$27,000.

At the Cincinnati City Hospital, after considerable weighing of the qualifications of various candidates for the position made vacant by the resignation of Dr. Oliver P. Coe, the board of medical directors appointed Dr. John E. Stemmler as receiving physician.

The Michigan Medical Laws, drawn without regard to the feelings of the older practitioners in that State, have obliged Dr. Hugo Beck, who has practised there for thirty years, to abandon his office and seek refuge in the soldiers' home at Grand Rapids.

New Children's Hospital in Kansas City, Mo.—The trustees of the Free Bed fund for crippled and deformed children have secured a three story building at 414 Highland Avenue, which is being arranged according to modern ideas as a hospital. All sick children will henceforward be made beneficiaries of the charity.

Melrose Hospital, Melrose, Mass., has benefited to the extent of \$1,000 by the will of the late Royal P. Barry, of that town.

At Toronto University, in the medical department during the late opening of the combined schools, the degree of L.L. D. was conferred upon the following gentlemen: William Williams Keen, M. A., M. D.; William Henry Welch, M. A., M. D.; William Osler, M. D.; Russell Henry Chittenden, Ph. D.; Charles S. Sherrington, M. A., M. D.; F. R. S.; Henry Pickering Bowditch, M. A., M. D., D. Sc.

A Railway Hospital on Wheels.—A hospital car is the latest addition to the rolling stock of the San Pedro, Los Angeles, and Salt Lake Railroad. The car had several staterooms for convalescents, a surgical room, and a large section that will accommodate a dozen cots. Complete outfits of instruments and drugs have been provided.

Large Hospital for Houston, Tex.—The Southern Pacific Railway is said to have plans under way to construct one of the largest railway hospitals in the world at Houston, Tex. The building is to adjoin the new seven story office structure at Franklin Avenue and Travis Street. The same road has a fully equipped hospital car, which is rushed when necessary to the scene of an accident.

The Typhoid Fever Outbreak in Grand Rapids, Mich.—The Health Officials of Grand Rapids, Mich., are having considerable trouble in protecting the inhabitants of that town against typhoid fever. There are ten thousand wells in the city and trouble arises when the officials desire to inspect these. Red cards have been affixed to those in the fever district, warning the users to boil the water coming therefrom. The owners sneer at this precaution and consign the inspectors to a place where it is thought water from any well would be acceptable, boiled or "raw."

The New Jersey Delegates to the Tuberculosis Congress at St. Louis, appointed by Governor Murphy, are as follows: Dr. Charles J. Kipp, and Dr. Laban Dennis, of Newark; Dr. Elmer Barwis, of Trenton; Dr. C. T. Brackett, of Princeton; Dr. Henry Mitchell, of Asbury Park; Dr. Henry W. Elmer, of Bridgeton; Dr. W. S. Jones, of Camden; Dr. James S. Green, of Elizabeth; Dr. O. H. Sprowl, of Flemington; Dr. Austin Scott, president of Rutgers College, New Brunswick; Edwin A. Stevens, of the Stevens Institute, Hoboken; Frank L. Sheppard, general superintendent United railroads of New Jersey; Dr. John D. McGill, of Jersey City, and Dr. Stephen Pierson, of Morristown.

The Thirtieth Annual Meeting of the Oregon State Medical Society was held in Elks' Hall, Marquam Building, Portland, Ore., on September 29th and 30th. The programme follows: Annual Address by the President, by Dr. Henry Waldo Coe, of Portland; Address of Welcome, by Mayor George H. Williams; Report of Chairman, Board of Council, by Dr. Calvin S. White, of Gervais;

Osteomyelitis, with a report of an unusual case, by Dr. Joseph S. Courtney, of Dayton; The Higher Education a Cause of the Physical Decay of Women, by Dr. F. W. Van Dyke, of Grants Pass; Technics in General Anæsthesia, by Dr. Joseph Sternberg, of Portland; Some Observations on the Arid Region, by Dr. Franklin Cauthorn, of Portland; Tuberculosis, by Dr. Edward A. Pierce, of Salem; What is the X Ray? by Dr. Richard Nunn, of Portland; Technical Management, by Dr. George E. Houck, of Roseburg; Diagnosis of Fractures, by Dr. George F. Wilson, of Portland; Cancer, by Dr. Robert C. Coffey, of Portland; Skin and Glands, by Dr. Luther H. Hamilton, of Portland; The Paranoiac, by Dr. Walter T. Williamson, of Salem; The Neurasthenic, by Dr. J. Allen Gilbert, of Portland; The Pervert, by Dr. James P. Tamiesie, of Hillsboro; The Syphilitic, by Dr. William House, of Pendleton; The Tuberculous, by Dr. Woods Hutchinson, of Portland; What can we do for them? by Dr. John S. Klover, of Green River Hot Springs; Modern Methods of Diagnosing Kidney Disease, by Dr. Albert E. Mackay, of Portland; Dietetic treatment of various forms of Kidney Disease, by Dr. Charles J. Smith, of Pendleton; Drugs used in the various forms of Kidney Disease, by Dr. James F. Bell, of Portland; The Pathology and Treatment of Tuberculous Kidney, by Dr. Joseph B. Eagelson, of Seattle; Causation and Pathology of Chronic Bright's Disease, by Dr. Woods Hutchinson, of Portland; Pyelitis, by Dr. William H. Byrd, of Salem; Renal Calculi, by Dr. William Jones, of Portland; Anuria, by Dr. Park Weed Willis, of Seattle; Indications for Nephrectomy, by Dr. Kenneth A. J. Mackenzie, of Portland. The following officers were elected: President, Dr. W. T. Williamson, of Salem; vice-president, Dr. G. W. Tape, of Hot Lake; second vice-president, Dr. E. E. Ferguson, of The Dalles; third vice-president, Dr. Mae H. Cardwell, of Portland; treasurer, Dr. Jessie McGavin, of Portland; secretary, Dr. L. H. Hamilton, of Bertrand. Councillors: Dr. S. E. Josephi, of Portland, for 1 year; Dr. W. F. Amos, of Portland, for 3 years; Dr. W. J. May, of Baker City, for 2 years; Dr. J. S. Fulton, of Astoria, for 2 years; Dr. Geo. F. Wilson, of Portland, for 1 year; Dr. W. T. Williamson, of Salem, for 4 years; Dr. Wm. House, of Pendleton, for 3 years; Dr. C. S. White, of Gervais, for 1 year; Dr. R. C. Coffey, of Portland, for 1 year; and Dr. S. T. Linklater, of Hillsboro, for 4 years. Delegate to American Medical Association: Dr. J. C. Smith, of Pendleton. Alternate to American Medical Association: Dr. K. A. J. Mackenzie, of Portland.

OBITUARY NOTE.

Dr. DAVID FRANKLIN died at his residence, 17 East One Hundred and Twenty-ninth Street, on the 6th instant, after an operation for appendicular inflammation. Dr. Franklin was for many years the President of the Harlem Medical Society, and a visiting physician to the Hebrew Orphan Asylum. He had not reached his forty-fifth year. He leaves three daughters. The body was cremated on October 8th.

Pith of Current Literature.

LANCET.

September 26, 1903.

1. Perforation in Typhoid Fever,
By H. W. G. MACKENZIE.
2. Some Problems Arising from the Variations in Development of the Skull and the Brain, By J. SYMINGTON.
3. A Case Presenting Signs of Pulmonary Stenosis During Life, Unexplained by the Necropsy, with Some Remarks on Diagnosis, By W. L. ASCHERSON.
4. A Note on Tonsillar Enlargements and Their Treatment, By L. H. MCGAVIN.
5. On Some Uncommon Forms of Neuritis of the Upper Limbs with an Unusual Ætiology,
By W. B. WARRINGTON.
6. Remarks on Three Cases of Acute Intestinal Obstruction, By T. C. ENGLISH.
7. A Note on a Case of Puerperal Septicæmia Treated by Antistreptococcic Serum,
By J. M. MACKENZIE, and W. B. BLANDY.
8. A Clinical Comparison of the Maternal Pelvis and of the Fœtus in Europeans, Eurasians, and Bengalis: and the Enunciation of a New Law in Accordance with Which the Size of the Child at Birth is Determined.
By C. A. LANE.

1. **Typhoid Perforation.**—Mackenzie states that perforation is no uncommon accident in typhoid fever; it occurs in about three per cent. of all cases. It is the cause of death in fully thirty per cent. of the fatal cases. The only rational treatment is surgical, by means of laparotomy and suture—of this there is no doubt. And further, the earlier the condition is recognized and operation performed, the better the chances of the patient. So that the diagnosis of perforation is of the utmost importance. Perforation may occur in mild as well as in severe cases—many instances are on record of its taking place in the ambulatory form of the disease. In many cases hæmorrhage precedes the perforation. Age has no influence, but perforation occurs three times as often in men as in women. It is rare before the tenth day of the illness, and is most frequent towards the end of the third week. During relapses it usually occurs at the end of the second week. The seat of perforation is most commonly in the last twelve inches of the ileum where ulceration is usually most severe. In the large intestine the sigmoid flexure is the part most likely to give way. As a rule, there is but one perforation, but there may be several. In half the cases the perforation is of minute size. Usually the earliest, most important, and most significant symptom—as well as the most constant—is abdominal pain. Its onset is sudden; it is persistent, but with exacerbations; and generally severe, although it may be agonizing. As a rule, the pain is not very definitely localized; but it may be referred to the bladder, the testicles, or the penis. The next most frequent symptom is abdominal tenderness, often most marked over the lower half on the right side. Vomiting is less common and less significant than pain—it is usually accompanied by nausea. Hiccough is a still less frequent symptom, but calls for careful examination. In some cases perforation causes a marked

fall of temperature—in others a rise or no change at all. More characteristic is the change in the pulse, which becomes more frequent and weaker; it is not usually immediate. The abdomen is not necessarily distended—a rigid retracted abdomen is just as significant as one that is tense and distended. Obliteration of liver dulness, evidences of free fluid in the abdomen, and muscle spasm in the abdominal wall are all valuable signs. The presence of leucocytosis is hardly more than a confirmatory sign.

Every case of typhoid fever should be looked on as one of possible perforation, for which emergency the physician should be fully prepared. The nurse should have instructions to report at once the occurrence of any suspicious symptoms. In conclusion the writer reports two cases of perforation operated upon by him, in both of which recovery took place.

3. **Pulmonary Stenosis.**—Ascherson reports the case of a man complaining of nervous symptoms, in which auscultation of the heart revealed a loud systolic murmur heard over the pulmonary area, and there was felt a diastolic shock. The patient developed diarrhœa, and uræmia, and finally died of œdema of the lungs. At the autopsy the heart, aorta, and pulmonary artery were found to be absolutely normal.

Stenosis of the pulmonary artery may be classified into: (I) actual stenosis; and (II) relative stenosis—i. e., relative to actual dilatation of a distal portion. Actual stenosis may be produced from (1) intravascular, and (2) extravascular causes. Intravascular causes include: (a) congenital stenosis of the vessel associated with the disease of the pulmonary valves; and (b) rare cases in which a thrombus in the vessel causes signs of stenosis before death. Among the extravascular causes are (a) pressure on the artery by aneurysms, growths, and enlarged glands, by the ventricle of the heart itself, and by great pericardial effusion; (b) displacements of the heart, as in pleural effusion and retraction or collapse of the lung; (c) traction on the pulmonary artery by adhesions, lung disease, or constriction by pericardial effusion; and (d) actual stenosis. The case here reported cannot be classed under any of these heads.

4. **Enlarged Tonsils.**—McGavin classifies enlargements of the tonsils as follows: (1) Simple enlargement, or hypertrophy of the tonsil. (2) Enlargement due to continued irritation—the most common cause being nasal insufficiency or nasopharyngeal obstruction from adenoids in the young and enlarged turbinates, etc., in adults. (3) Enlargement accompanied by lacunar inflammation. The author has paid special attention to lacunar disease of the tonsils and recommends cauterization as the mode of treatment *par excellence*—he describes a crypt dilator and a curette which he uses with much benefit. Complete removal of the tonsils for enlargement from lacunar disease is not always necessary; but amygdlectomy is indicated in lacunar disease in the following conditions: (1) Where the whole tonsil is extensively diseased: the fibrosis following cauterization is so widespread as to leave the ton-

sil in a chronically painful condition. (2) When the crypts involved, although few in number, are at the upper part of the tonsil and open upon the mouth of a deep supratonsillar fossa. Cauterization in such cases is useless. (3) Where the crypts involved occur upon a hard, anæmic, and rugose tonsil, and contain foul and cretaceous lacunar plugs. (4) When the disease occurs in young children, who will rarely permit of any prolonged manipulation in the mouth. (5) When the condition is accompanied by cervical glandular enlargement. (6) Where cauterization has been tried and failed. On the other hand, dilatation of the orifices, evacuation of the contents, and cauterization of the crypts are especially indicated (1) in cases where the crypts are neither numerous nor large; (2) where the upper part of the tonsil is healthy and the supratonsillar fossa is shallow; and (3) where the disease occurs in young adults and is not of long standing.

5. **Rare Cases of Neuritis.**—Warrington reports the following cases of some uncommon forms of neuritis of the upper limb with unusual ætiology: (1) An acute toxic condition followed by complete monoplegia with wasting of muscles; pain, but no anæsthesia; recovery. (2) Localized multiple neuritis: left upper limb, wasting of muscles of the hand, palsy of the extensors of the fingers and of the biceps, anæsthesia of the ulnar border of the forearm; right upper limb, wasting of triceps with analgetic area; loss of knee jerks; partial recovery; under observation three years. (3) Prophylactic injection of diphtheria antitoxine, followed in a week by acute universal urticaria and swelling of the right shoulder-joint; palsy of the deltoid and infraspinatus, recovery in four months. (4) Ulnar neuritis with wasting of the muscles of the hand and anæsthesia; no obvious cause; partial improvement. (5) Wasting limited to the muscles of the hand supplied by the ulnar nerve; no known cause; no anæsthesia; stationary condition for three years. (6) Wasting of the small muscles of the right hand in a provision dealer's assistant; normal electrical reactions; no anæsthesia. (7) Extreme atrophy of the muscles of the arm in a boiler-maker; integrity of the shoulder girdle and muscles of the forearm and the hand.

6. **Intestinal Obstruction.**—English reports three cases operated on by him for acute intestinal obstruction, with two recoveries and one death. He calls special attention to the value of irrigating the intestines with hot saline fluid throughout the operation. Such irrigation diminishes distention of the intestines and renders the operation more easy, wards off shock, relieves thirst, prevents the subsequent formation of adhesions, and increases renal secretion, many of the toxic products being eliminated through the kidneys. The stomach should be thoroughly washed out both before and after the operation. Careful massage of the injured bowel was performed in two cases with marked benefit, peristaltic action returning almost at once.

7. **Puerperal Septicæmia.**—Mackenzie and Blandy report a case of puerperal septicæmia oc-

curring in a primipara, aged twenty-three years, in which they used antistreptococcic serum with great benefit. But they are convinced that the serum should not be relied upon alone—local treatment (douching, etc.) should never be neglected. If the absorption of septic material is allowed to continue unhindered, antistreptococcus serum of itself is insufficient to control the symptoms, much less to insure recovery.

8. **Correspondence of Pelvis and Fœtus.**—Lane has made elaborate measurements of the pelvis and fœtus in Europeans, Eurasians, and Bengalis, and comes to the conclusion that, except in the case of small pelvis there is a parallelism between the size of the child's head (and in particular of the biparietal diameter) and the conjugate diameter of the mother's pelvis, due to natural growth. The weight of the child, and therefore the size at birth, bear a definite relationship to the size of the mother's pelvis, and this relationship is carried so far that the biparietal diameter of the child increases correspondingly with the conjugate diameter of the pelvis through which it will ordinarily pass at birth. This, he states, may be enunciated as a definite law.

BRITISH MEDICAL JOURNAL.

September 26, 1903.

(Seventy-first Annual Meeting of the British Medical Association.).

Section of Tropical Medicine.

1. Discussion on Leprosy: Its Ætiology, Histology, and Treatment,
By J. HUTCHINSON, H. M. FERNANDO, and Others.
2. Biliary Abscesses of the Liver: with Operation,
By L. ROGERS.
3. Lathyrism,
By A. G. HENDLEY.
4. A Plea for the Proper Medical Supervision of "Refreshments" Purveyed on Railways in the Tropics,
By H. D. McCULLOCH.
5. Varioloid Varicella in Trinidad,
By J. R. DICKSON, and C. F. LASSALLE.
6. Tropical Malaria and Its Prophylaxis,
By H. M. FERNANDO.
7. Plague in Domestic Animals,
By J. CANTLIE.

Section of Ophthalmology.

8. Introductory Remarks,
By H. E. JULER.
9. Notes on Operations for Conical Cornea,
By A. S. MORTON.
10. Extraction of Cataract in the Capsule, By H. SMITH.
11. Subconjunctival Injections of Tuberculin (T. R.) in the Treatment of Interstitial Keratitis,
By A. DARIER.
12. On the Treatment of the More Serious Syphilitic Diseases of the Eye,
By A. DARIER.
13. A Discussion on Eye Changes in Relation to Renal Disease, By E. NETTLESHIP, G. CARPENTER, and Others.
14. The Corneal Lesions of Acquired Syphilis,
By S. STEPHENSON.
15. The Use of Retinal Extract in Atrophic Retinæ,
By R. W. DOYNE.
16. Epithelial Plaques of the Conjunctiva,
By W. T. LISTER, and W. I. HANCOCK.
17. The Mechanism of Accommodation in Man,
By K. GROSSMAN.
18. The Treatment of Concomitant Convergent Strabismus,
By G. HARTRIDGE.
19. Convergent Squint,
By C. WORTH.

20. Fixation of the Eye During Operation,
By J. T. THOMPSON.
21. An Operation for Ptosis,
By H. C. ENSOR.
22. Preliminary Note on the Pathology and Diagnosis of
Spring Catarrh,
By H. HERBERT.
23. Further Note on the Superficial Punctate Keratitis of
Bombay,
By H. HERBERT.
24. Modified Mules's Glass Ball for Use After Removal of
the Eye,
By A. BRONNER.
25. Kueejerk Phenomenon in Interstitial Keratitis,
By N. B. HARMAN.
26. An Improved Operation for the Relief of Ptosis,
By N. B. HARMAN.

1. **Leprosy.**—Hutchinson believes that leprosy is in some way caused by food and that its germs are received into the stomach. He discredits all suggestions of contagion by the breath, touch, or by skin inoculations. For practical purposes transmission by inheritance plays no part in the diffusion of leprosy. The disease is not contagious in the ordinary sense of the word. Personal communication is possible, but is of rare occurrence. It is very infrequent for husband and wife both to be lepers. While the disease is widespread in countries where it occurs, it is never common and never attains an epidemic prevalence. As opposed both to contagion and heredity it is alleged that when leprous colonies are removed to a distance from the place of origin the disease dies out; that when individual lepers are removed to non-leprous places they do not convey it; that when the social conditions of a leprous district are changed the disease dies out of itself. These facts, together with many others which are cited by the author, point to food causation. Tainted fish is the article of diet believed to carry the infection, although the *lepra bacillus* has never been found therein. Fish has been suspected in almost all ages; leprosy occurs chiefly in fish-producing districts, people engaged in fishing often suffering with exceptional severity; it is more prevalent where fish is used in accordance with religious creed (Roman Catholics); and finally the disease declines simultaneously with a decrease in the consumption of fish. So that precautions should be adopted against the consumption of fish as food. Fish curing establishments should be regularly inspected, proper curing enforced, all taxes on salt removed, and the public be warned of the danger of unsound fish. And, finally, if the disease is only acquired through food, the present methods of prevention by segregation are not only useless, but also cruel and unjust. [Not one of the others taking part in the discussion agreed with Hutchinson. Manson, Fernando, Abraham, and others scout the tainted fish theory, and hold that segregation is at present the only efficient means of controlling the disease.]

2. **Biliary Abscess.**—Rogers reports a case of that rare condition, biliary abscess of the liver—abscesses in the liver within the bile ducts, sometimes called suppurative cholangitis. The diagnosis is difficult; all the symptoms of gall stones may be present, while in other cases there is only obstructive jaundice and signs of internal supuration. A characteristic point is that the jaun-

dice, often complete at first, grows less after a while and bile reappears in the stools. In the author's case the abscess had opened into a bronchus. At the operation a large number of gall stones were removed from the hilum of the liver. But the patient was exhausted, and died soon after the operation.

3. **Lathyrism.**—Hendley gives a brief report of an outbreak of lathyrism observed by him in an Indian village. Lathyrism is a disease of the nature of an intoxication with a spastic spinal paralytic course, which is attributable to poisoning with various kinds of the family of *lathyrus* (*Papilionaceæ*: chick-pea or pulse). In the outbreak reported, ten per cent. of the male population became more or less paralyzed in the lower limbs. It occurred within a period of five or six weeks, during which time the village landlord had fed his laborers on *Lathyrus sativus*, or pulse. The disease occurs almost exclusively in men and during the rainy season. Loss of power in the legs begins as weakness, which is progressive, until the patients can hardly walk. The patients have no sense of illness beyond the paralysis. The gait is peculiar; a long two-handed staff is used, and the knees are bent and the feet dragged along the ground, one being planted directly in front of the other. The prognosis as regards life is favorable, but the paralysis is incurable.

5. **Varioloid Varicella.**—Dickson and Lasalle describe a disease occurring in Trinidad, strongly resembling both variola and varicella. There is an incubation period of two weeks, a febrile onset, and on the fourth day a papular rash which goes through successive stages of vesiculation, suppuration, desiccation, and desquamation. The rash usually appeared first on the face, forearms, and trunk—but often was first seen on the hands or legs. The vesicles collapsed on pricking. The temperature was elevated only for the first few days. Complications occurred only in the severer cases, and boils were the only sequelæ. The duration of the disease was about three weeks. Eighty per cent. of the cases occurred in subjects between the ages of ten and forty years. The disease first appeared in 1902. The mortality was very low: of 4,029 cases only 18 died. In 1871 there was an epidemic of smallpox in Trinidad, and of 12,000 cases 2,000 died. The disease here described resembles a typical smallpox, but differs from it in the following particulars: (1) Second attacks occur in those who have recently had the disease. (2) Persons recently recovered can be successfully vaccinated. (3) Recently vaccinated persons may contract the disease.

6. **Malarial Prophylaxis.**—Fernando advises that in dealing with malaria in a district, the following points should be insisted on: (1) A prompt search for cases of fever as fast as they occur and efficient treatment. If necessary or practicable malaria should be included in the list of infectious diseases whose notification to the local sanitary authority is compulsory. (2) The continued treatment of fever cases after the attack is over, to prevent relapses. (3) The systematic treatment, especially during the non-fever season, of

the cases of anæmia and other forms of debility induced by chronic malarial poisoning.

7. **Plague in Domestic Animals.**—Cantlie calls attention to the fact that many of the domestic animals are subject to plague, and so help to spread the disease. Sheep, calves, pigs, ducks, and fowls of all kinds readily contract the disease by feeding on plague infected material. The bacilli are found in their flesh, excretions, and skin. Animals may suffer for weeks without betraying any symptoms of illness, giving off plague bacilli all the time. These facts go to explain the persistency and epidemicity of plague and the difficulty of its eradication. On shipboard, rats are not the only animals to be guarded against, and as the one evidence of plague in animals short of examining the blood or secretions for bacilli is that of elevation of temperature, it is necessary that the temperature of every animal previous to being received on board ship from a plague-infected port should be tested, and the pyrexia weeded out from the apyrexia. This would be a tedious task. A ready means of diagnosing plague in animals is sorely wanted.

13. **Eye Changes in Renal Disease.**—Nettle-ship states that while albuminuric retinitis commonly occurs in chronic interstitial and parenchymatous nephritis, yet it has also been observed in lardaceous disease. About twice as many cases occur in men as in women; the age varies from 30 to 60, the most prolific single decade being from 50 to 59. Pregnancy cases, the prognosis of which is more favorable, occur mostly between the ages of 30 and 39. The two chief factors in the production of renal retinitis are (1) a morbid state of the blood; and (2) a diseased condition of the retinal arteries, and in most cases the two are combined. An early stage of granular kidney may fairly be suspected whenever decided hyaline thickening of the retinal arteries is seen by the ophthalmoscope. This is especially true if the patient is comparatively young. The typical renal retinitis is nearly always symmetrical: occasionally when hæmorrhage is the chief sign, only one eye is affected. There is reason to think that the retina atrophied by previous disease does not take on the changes constituting renal retinitis. Retinitis may occur in diabetes without albuminuria. Occasionally pigmentation of the retina and night blindness, or iritis are present.

PRESSE MEDICALE.

September 12, 1903.

1. Delirious Patients in Hospitals; Their Treatment; Their Value as Object Lessons. By E. RÉGIS.
2. Thirteenth International Congress of Hygiene and Demography (Brussels, September 8, 1903), By M. LETULLE.

1. **Delirium.**—Régis draws attention to the fact that the truly insane have always been cared for apart from other invalids, and speaks of the drawbacks of keeping "hospital delirious" in the same wards with quiet patients. He applies the name equally to alcoholics, postoperative cases, hysterics, neurasthenics, choreics, uræmics, typhoid cases, etc. Régis realizes, however, that

such cases do not belong to the insane asylum, although some have been accidentally sent there. The *Société médicale des hôpitaux de Paris*, at the recommendation of several professors, passed a resolution to the effect that every hospital should have a special ward for the delirious, or temporarily insane. Such a ward, says Régis, should communicate directly with the regular medical and surgical wards, delirium being often short; he details what has been done in other countries, and mentions the arrangement at Bellevue, and finally his own clinics at Bordeaux. Régis's attention was most forcibly drawn to the matter when he witnessed a case of the rare delirium after severe burning. The advantages of grouping these temporary insanities for clinical purposes are dwelt upon.

2. **The Brussels Congress.**—Letulle summarizes the resolutions adopted: The Section on Microbiology and Parasitology nominated an international committee to regulate the manufacture of serums. The section on Alimentary Hygiene resolved that measures should be taken to prevent the transmission of tuberculosis from lower animals to man; that the attention of all authorities should be directed to the prophylaxis of tuberculosis; that the sale of pure milk should be insisted upon; that canned goods should be thoroughly sterilized. The section of Sanitary Technology took up the question of the filtration of the water supply of towns, recommending that particular attention be given to hard water. The section on Industrial and Professional Hygiene demanded ventilation and drainage in all mines, in view of the ravages of ankylostomiasis; recommended researches to endeavor to find substitutes for the lead salts in various industries; and advised a definite temperature and hygrometric condition of the air in woollen factories, besides the exclusion of women and boys under eighteen years of age. The section on the Hygiene of Transportation is studying contagious diseases among railway employees and the prophylaxis particularly of syphilis, tuberculosis, and alcoholism. The sixth section studies Administrative Hygiene, the prophylaxis of transmissible diseases, workmen's houses, and the hygiene of infants and dwells on this last in the prophylaxis of tuberculosis and plague, recommending the careful instruction of young women and the issue of printed warnings against bottle feeding to the newly married and to young mothers. This section also advised the careful supervision of the mental and physical growth of school children and, after long debate, passed resolutions to instruct mariners and quarantine inspectors concerning the plague, with the final object in view of the total abolition of quarantine stations. General resolutions regarding the international regulation of tuberculosis were also adopted.

LYON MEDICAL.

September 13, 1903.

Contribution to the Study of Fractures of the Upper End of the Radius in the Adult, By LATARJET, and GAZET.

Fractures of the Radius.—Latarjet and Gazet have experimented with cadavers and with ampu-

tated arms, striking them with hammers and simulating as much as possible the accidents possible to a living being, endeavoring to reproduce nine actual cases, of which they give a detailed clinical history. They divide such fractures into those with and those without displacement. As to treatment, they recommend manipulation and massage till swelling has somewhat subsided before immobilization in a splint; careful thought must be given to the elbow joint and the radio-ulnar articulation. If the case is seen late, resection will be necessary, followed by immobilization in plaster, the arm semipronated; then massage and electricity, if not too painful.

MUENCHENER MEDIZINISCHE WOCHENSCHRIFT.

September 1, 1903.

1. The Leucocyte Question, By ERICH MEYER.
2. Diagnosis of Chronic Nephritis, By SCHWARZKOPF.
3. Absence of Casts in the Urine of Nephritis, By ADOLF TREUTLEIN.
4. Causes of Death in the Newborn, By M. HOFMEIER.
5. Care and Nursing of Premature and Weak Infants, By O. PALANO.
6. Treatment of Placenta Prævia, By HAMMER.
7. Determination of the Left Boundary of the Heart, By H. ENGEL.
8. Intravesical Separation of Urine from Each Kidney, By KEYDEL.
9. Specific Gravity of the Human Body, By FRIEDRICH JAMIN, and EDUARD MÜLLER.

3. Absence of Casts in Nephritic Urine.—Treutlein says that typical cases of nephritis exist, with albuminuria and albuminuric retinitis, which show no casts in the urinary sediment. This absence of casts cannot be referred to their digestion by the passage of pepsin through the kidneys, nor have leucocytes the power of absorbing casts, though they may gain access to the kidneys by ascending from the bladder in cases of cystitis; nor can the leucocytes of ordinary pus accomplish the solution of casts. Cylindrolisis is the result of bacterial action, mainly of *Bacterium coli*, and the action may take place in the bladder if there is a cystitis, or the bacteria may ascend into the pelvis of the kidney or the renal tubuli, and there attach and dissolve the casts. But Treutlein finds that the ferments of the colon bacillus alone cannot bring about cylindrolisis.

6. Treatment of Placenta Prævia.—Hammer reports one hundred and seven cases from the Würzburg Clinic, nineteen cases of central insection, seventy of lateral insection, and eighteen of deep-seated placenta. The total mortality among the mothers was eight, or 7.47 per cent., while the foetal mortality was fifty-eight, or 54.2 per cent. In cases of placenta prævia centralis, Hichs's method of combined version was followed in fourteen instances, with thirteen maternal recoveries, and with three living children. In lateral placental insection, combined version was performed forty times with thirty-four maternal and thirteen foetal recoveries. In breech presentations, slow extraction was followed eight times with seven foetal deaths. Artificial rupture of the membranes was practised eleven times with ten foetal deaths. Perforation was necessary but once. In two cases

metreuryasis was done, saving both mother and child. The mortality for both mother and child is lower in cases of deep seated placenta in which, at the Würzburg Clinic, rupture of the membranes was the treatment usually followed. The author calls attention to the impossibility of sometimes performing combined external and internal version without the aid of anæsthesia.

7. The Left Boundary of the Heart.—Engel says that the recently advocated methods of auscultatory percussion are not certain, and are built on false premises. The left *relative* boundary of the heart is the determining factor in deciding upon this point. This is best established by strong, deep percussion and by the indirect, but certain, use of the upper relative cardiac boundary.

WIENER KLINISCHE WOCHENSCHRIFT.

September 3, 1903.

1. Pathology of Tuberculosis of the Tonsils, By EMIL GLASS.
2. Tuberculosis of the Thyreoid Gland, By DOMINIK PUPORAC.
3. Ætiological Significance of Defect of the Cucullaris in High Scapular Position, By HUGO NEUMANN.

1. Tuberculosis of the Tonsils.—Glass concludes the review of his cases by stating that two were instances of primary tuberculosis of the tonsils, and one case represented a miliary tuberculosis of the tonsils evoked by the sputum, from which infection of other organs took place by continuity, by the blood, and by the lymph. In the three cases the tonsil presented the picture of hypertrophy. In the miliary case, miliary nodules appeared on the tonsil and the velum, a rare event. In two cases, he was able to demonstrate a connection between tuberculous glands and the tuberculosis of the tonsils, and in the other between the tonsillar infection and a retropharyngeal abscess. In all cases the bacilli were found. Two principal forms of the disease seem to invalute the tonsils, the chronic (sclerotic) non-ulcerating form, and the deposit of miliary nodules.

BERLINER KLINISCHE WOCHENSCHRIFT.

September 7, 1903.

1. Oats in the Treatment of Severe Diabetes Mellitus, By C. VON NOORDEN.
2. Origin and Proportions of the Alexines, By R. TURRO.
3. Disturbances of Gait in Tetany, By S. KALISCHER.
4. Toxic Components of the Diphtheria Toxines (Continued), By P. EHRLICH.
5. Psychic and Somatic Conditions of the "Bohemian Sisters" (Concluded), By R. HENNEBERG, and H. STELZNER.

1. Oats in Diabetes.—Von Noorden says that patients suffering from severe diabetes who have been kept on a strict antidiabetic diet, will show a remarkable decrease in the quantity of sugar, acetone, and ammonia excreted, when they are fed on oat flour or oat flakes. They are allowed butter and simple proteids, but no meat or any other carbohydrate. When the usual diet is resumed, acetone appears rapidly in large quantities. The flour or flakes are cooked for a long time in water with a

little salt added, to which is also added butter, a vegetable proteid, or, after cooling, beaten whites of eggs. The usual daily quantity taken was, 250 grammes of oats, 100 grammes of egg albumen, and 300 grammes of butter. A soup prepared of these substances, was given every two hours. Cognac, wine, or strong black coffee was usually added to the diet. Von Noorden is enthusiastic over this treatment, as the report of his five closely observed cases leads him to be, but he warns against the belief that the oat treatment is infallible.

2. **Origin of the Alexines.**—Turro says the alexines—lysins, bacteriolytic substances, cytosols, etc., are substances which act chemically upon the protoplasm of the bacteria, converting it into an amorphous soluble mass. This process is called bacteriolysis. The alexines are a product of the cell plasma, derived from the liver, the spleen, the kidneys, the epithelium of the thyroid gland, the white blood cells, etc., and become active by a previous solution in water containing the physiological percentage of salt. The properties of individual alexines depend upon their source in the various cells, being positive on certain forms of bacteria and negative on others. They have been shown experimentally to be present in the thyroid gland, the capsule of the adrenals, the renal tissue, in the lymph glands, the muscles, the liver, and the spleen, in the blood plasma and in the yolk of the egg after previous solution in albumen. Chemically, they are to be regarded as enzymes which devour bacteria by a progressive hydrolysis. The greater or less resistance of the organism to an infection (natural immunity) depends upon the facility of the cell plasma in liberating alexines and, in consequence, their activity.

CORRESPONDENZ-BLATT FUER SCHWEIZER AERZTE.

September 1, 1903.

1. A Peculiar Benign Streptomycosis Bullosa,
By M. WINKLER.
2. Results of the Swiss Sanatoria for the Tuberculous
Poor, By HEINRICH STAUB.
3. Toxic Scarlatinoform Erythema, By THEODOR ZUNGER.

1. **Streptomycosis Bullosa.**—Winkler reports an epidemic in the asylum for the blind, in Berne, in which there appeared on the finger tips bullæ, very tensely filled with serum which contained streptococci. In from one to two weeks spontaneous cure ensued in all the cases. The author compares the disease in its infectiousness to impetigo vulgaris.

2. **Sanatorium Results.**—Staub says that the permanent results in the Swiss sanatoria are somewhat better than those of Germany, possibly on account of the higher altitude. At present the early diagnosis of the disease is pretty certain, even in the absence of tubercle bacilli. The author dwells upon the moral effect of the treatment in sanatoria, especially upon the poor and the mentally unoccupied, as beneficial.

REVISTA DE ESPECIALIDADES MEDICAS.

September 30, 1903.

1. Neurasthenic Insanity, By D. VICENTE.
2. Syphilitic Reinfection or Relapse?
By D. J. CABALLERO.
3. A Rare Case of Zona, By D. J. CABALLERO.

1. **Neurasthenic Insanity.**—Vicente discusses the mental manifestations of neurasthenia and gives an illustration of the melancholic type in the case of a man who developed a neurasthenic lypemania as a result of the death of a favorite son. The author emphasizes the favorable reaction to heterosuggestion—as seen in the case described—in neurasthenic melancholia; this serving as a point of differential diagnosis between that condition and true melancholia, in which all assurances as to the curability of the condition are met with incredulity and a more settled depression.

2. **Syphilitic Reinfection.**—Caballero describes the case of a man in whom symptoms of a generalized syphilitic infection appeared two months after an apparent cure of a previous attack. The author leaves the diagnosis between a relapse and reinfection an open question; though from the presence of an indurated preputial chancre, and the history of renewed exposure to infection, in the belief that immunity had been acquired by the previous attack, he leans to the belief that this was a case of reinfection rather than of relapse after suspension of treatment.

3. **Zona.**—Caballero reports what he believes to be an unusual case of zona. The patient came under treatment for a periodical, vesicular eruption upon the prepuce, which lasted only a day and left but a slight burning sensation upon its disappearance. The eruption recurred at more or less regular periods of about four weeks and was always preceded by pain, which commenced in the left heel and followed the course of the sciatic nerve to the gluteal region, whence it radiated to the perinæum and pubis. The affection promptly yielded to treatment with quinine and arsenic.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

June 28, 1903.

1. Acute Infectious Liver in An Unknown Disease,
By ANTONORE NIZZOLI.
2. Antitoxines and Agglutinins in Immunized Animals,
By DR. FIGARL.
3. Nuclein in Sperma, By EMILIO CAVAZZANI.
4. The Treatment of Puerperal Infections,
By GINO MONZARDO.
5. Sciatica Treated with Local Injections of Antipyrine,
By ADOLFO PRANDI.
6. Cacodylic Therapeutics, By BRUNO DOMENICO.

1. **Acute Infectious Liver.**—In 1902, Bozzolo described three cases of what he styled "infectious liver." Changes occur in this organ in most infectious diseases, but at times these changes take place very rapidly and with great intensity, simulating abscess. This form has not been studied with sufficient thoroughness. The principal symptoms are pain, enlargement of the liver, and more or less prolonged fever. The author has observed a case of this kind, the history of which he reports. With the exception of the cases published by Bozzolo, and of one related by Galvagni, there are no other instances of this kind in literature. The patient was a boy, aged three years, who was first taken with follicular amygdalitis, which disappeared, but the

fever persisted and there was œdema of the feet and eyelids. The urine contained casts, albumin, and blood. The liver was enlarged and painful on pressure and the abdomen was distended, but no liquid was found in the peritoneal cavity. There were persistent fever, diarrhœa, vomiting, and emaciation. This state of septicæmia lasted for four months, after which the fever gradually diminished and the liver decreased in size. The author thinks that the source of the infection was in the tonsils, and that the liver in this case presented the acute type of "infectious liver."

2. Antitoxines and Agglutinins.—Figari has investigated the question as to whether the antitoxines and the agglutinins of tuberculosis act in an analogous manner, or whether they may both be considered as substances derived specially from phagocytes. As regards the amount of agglutinins in different parts of the blood, the author found the lowest agglutinating values in the serum, and the highest in the extract of the corpuscles; and further, that there was a marked difference in the agglutinating power between the serum of centrifugation and the serum of separation, and little difference in this respect between the serum of separation and the clot of coagulation. As regards antitoxic powers, the serum of separation and the extract of the clot always showed a high value. The serum of centrifugation, on the other hand, was not so powerful. The author concludes that the antitoxines and agglutinins of tuberculosis do not circulate free in an animal's blood in large quantities, that they are present in small amounts in the plasma, and that the greater part of them is in the cellular elements of the blood.

3. Nuclein in Semen.—Cavazzani has studied the amount of nuclein in spermatic fluid. He finds the proportion of ferrinuclein in human spermatic fluid to be 2.3714 grammes in 100. This amount is an average which varies with a factor which the author does not discuss in detail, but simply announces in a preliminary way. This factor is the length of time between the ejaculations. When this time is considerable the semen is poor in nucleins. When ejaculations succeed each other rapidly, then the seminal fluid is more abundantly supplied with these substances. The author concludes, therefore, that the amount of ferrinucleins, and, therefore, of nucleins in the semen is in inverse ratio to the time which the semen has remained in the body.

4. The Treatment of Puerperal Infection.—Monzardo has used symptomatic treatment in most of his cases of puerperal infection, and obtained satisfactory results. The surgical procedures employed consisted in the removal of the remaining portions of placenta, or simply in the use of vaginal and uterine irrigations in cases accompanied by endometritis. When the annexa were involved the author waited until the process became less acute and more circumscribed, so as to open the abscess under favorable conditions. Hysterectomy was never used in acute cases with toxic symptoms of marked severity, and in this respect the author agrees with the postulates of Pinard. The measures that have given the author most beneficial results

were perfect rest in bed, a fluid diet, ice bags over the pubis, cardiac tonics, alcoholic stimulants, opiates, quinine, and salicylates.

5. Injections of Antipyrine in Sciatica.—Prandi recommends the local use of hypodermic injections of antipyrine in sciatica, which method has given him good results in very rebellious cases. He uses a solution containing five grammes of antipyrine in ten grammes of distilled water, and injects it with a long needle of the ordinary hypodermic syringe midway between the ischial tuberosity and the great trochanter, the needle being introduced as deeply as possible, so as to reach the nerve.

VRATCHEBNAYA GAZETA

June 21, 1903.

1. On the Correction of Myopia (*To be concluded*),
By S. V. LOBANOFF.
2. On the Surgery of the Lungs (*Concluded*),
By Dr. KAREWSKI.
3. The Food of the People and Its Influence Upon Diseases of the Digestive Tract (*To be continued*),
By M. N. KHEIFETZ.
4. A Case of Imperforate Hymen, By M. N. KERSNOWSKY.

2. The Surgery of the Lung.—Karewski reviews the recent advances which have been retained in the surgery of the lungs, and draws a very hopeful picture of the future of this special branch of surgery. The surgery of the lung is about 30 years old, although even before that time abscesses of the lung were occasionally opened when they were discovered in the course of operations for empyema. Modern surgery has proved that the lung can be cut just like any other tissue. The chest cavity must be opened widely so as to expose the field of operation and therefore a large number of ribs must be resected. The difficulty which arises owing to the development of pneumothorax after such operations is absent in cases where the pleura are adherent to each other. In some cases such adhesions must be artificially produced. For this purpose the author recommends the use of turpentine-silk sutures for suturing the costal pleura. By this means secure adhesions may be obtained within three or four days. If the operation cannot be delayed for three days then suturing the pleura and tamponing the wound may be sufficient. There is no difference between the knife and the cautery iron as regards the safety of their employment in the lung. Both have their disadvantages and the instrument must be selected according to the quality of the tissue, whether it is soft and succulent or old and dense. Hæmorrhage is to be feared chiefly after the operation, and to be treated almost always by packing. Local anæsthesia is to be preferred in these operations wherever possible, and the use of antiseptics is contraindicated. Although there are many cases in which the surgeon can attack the lung very easily, we should be careful and conservative in attempting such operations, inasmuch as the danger to the patient is considerable. The chief classes of cases adapted for lung surgery are abscesses, tuberculosis, actinomycosis, and echinococcus. The chief element in success in lung operations is not so much the technics employed

as the diagnostic skill of the surgeon. The great aid to diagnosis is always exploratory puncture.

4. **A Case of Imperforate Hymen.**—Kersnowsky reports a case of imperforate hymen in a girl aged 18 months who was brought to the author on account of the absence of a genital fissure. No history of a similar anomaly was present in the family. The child was perfectly healthy and well nourished, the labia majora were about 6 cm. apart and extended in the form of two fatty-cutaneous folds from either side of the mons veneris to the perinæum. The anterior and posterior commissures of the labia majora were normal. The labia minora were hardly visible, in the form of two thin folds of skin, which were imperfectly developed and were distinguishable only when the labia majora were separated. The urethra was normal. The hymen was present in the form of a thin perfectly impervious membrane.

BOSTON MEDICAL AND SURGICAL JOURNAL

October 8, 1903.

1. Memorial Meeting of the Boston Society of Medical Improvement, M. D. Addresses of MAURICE H. RICHARDSON, A. T. CABOT, GEORGE B. SHATTUCK, E. H. BRADFORD, ROBERT T. EDES before the Boston Society of Medical Improvement, March 24, 1903.
2. The Operative Treatment of Umbilical Hernia, By J. COLLINS WARREN.
3. Vesicointestinal Fistula, By JOSHUA C. HUBBARD.

2. **Umbilical Hernia.**—Warren discusses chiefly that type of umbilical hernia which is most prone to occur in women of middle or advanced life who are of corpulent habit and who have been the mothers of large families. Such hernias are due partly to changes which take place in the abdominal walls during pregnancy and partly to the accumulation of adipose tissue external to the true abdominal wall. The author considers the mechanism of the formation of such hernias to be somewhat as follows: The umbilicus is composed of cicatricial tissue which unites the skin of the abdominal wall to the peritonæum. As adipose tissue accumulates, this cicatricial tissue is put on a stretch and drags a funnel shaped pouch of peritonæum through the true abdominal wall. This constitutes the beginning hernia, whose contents, in the early stages, are invariably omentum. The author reports fourteen cases of hernia treated by him by operation. The results on the whole were satisfactory. Two forms of operation are described which differ from each other only in one particular. The second operation includes excision of the subcutaneous fatty layer. The second operation, which the author has employed twice, is performed as follows: The hernial sac is exposed by two slightly curved incisions which blend above and below in a median vertical incision. The sac is opened and its contents, after freeing the adhesions, returned into the abdominal cavity (if necessary part of the omentum may be excised). The hernial sac is next excised. If the fatty layer is to be removed the median incision must now be extended, through the skin and fat only, above, to within two inches of the ensiform and below to the upper limit of the mons Veneris. The fat on each side is now freed in succession, first from its attachment to the muscular aponeurosis and then from the

skin. Many large vessels will be cut and must be tied. All fat is removed on each side as far outward as the loins. The resulting skin flaps are stitched to the aponeurotic surfaces with catgut, in order to avoid dead spaces. The regular hernial operation is now resumed. The opening (hernial ring) through the true abdominal wall will be found to be elliptical in form, the long axis at right angles to the linea alba. The tissues must be carefully united in layers with fine silk sutures. The hernial ring is closed transversely, the upper and lower edges being approximated.

3. **Vesicointestinal Fistula.**—Hubbard reports one case of vesicointestinal fistula, reviews the literature of the affection and summarizes the various surgical procedures that have been suggested for the cure of the condition. The three characteristic symptoms of the condition are gas or fecal matter in the urine and urine in the stools. None of these symptoms is in itself pathognomonic. The author's case was one without evidences of carcinoma or tuberculosis of the inflammatory type, in which a stone occurred of apparently secondary origin. The fistula was situated so high in the bladder that fluid would not pass readily from the bladder into the intestine, but freely the other way. The adhesions between the bladder and the intestine prevented a satisfactory dilatation of the bladder and the cystoscopic examination was misleading. The patient was operated on three times and died.

MEDICAL RECORD

October 10, 1903.

1. Fibrocystic Tumors of the Uterus; Their Etiology, By MARY A. DUNN JONES.
2. Copper in Syphilis, By A. F. PRICE.
3. Aneurysm of the Transverse Arch, with Obliteration of the Innominate and Left Common Carotid Arteries, By U. S. BIRD.
4. A Case of Combined Pyloric Cancer and Phlegmonous Gastritis, By G. W. McCASKEY.
5. Congenital Absence of Rectum with Imperforate Anus, By G. W. SQUIRES.

1. **Fibrocystic Tumors of the Uterus.**—Jones writes an eleven page paper, illustrated, in order to set forth her peculiar views on the ætiology of fibrocystic tumors and indeed of almost all other morbid growths. We are not at all sure that we have been able to follow her argument very closely, therefore, for fear of misrepresenting we shall quote liberally. For instance "there is but one way to explain the changes in the tissues, or how these new formations are or can be developed; or to explain the development of any new pathological structure. And that is, *by the normal tissues being reduced to a medullary condition, and from this life material any new growth may be formed*, or any pathological tissue developed." The italics are not our own. By the judicious employment of this theory of "medullary state" it is demonstrated that all morbid tissue arises from the same "life elements." These life elements are not demonstrable but their habitat is known. "The inflammatory corpuscles are the results of changed normal tissue, or they are the remains of normal tissue. In them are the life elements of the original tissues; and these vital elements are ready for the development of any new

pathological information. From such sources, very little blood, pus, sputum, etc. or anything else. Any one person that has caused by accident or forward motion is not a good friend. The reader concerned in this subject cannot do better than consult the original paper.

2. **Copper in Syphilis.**—Price's experience and his results with copper in its treatment are of interest. Before stating the author's conclusions we call attention to the fact that, the initial doses of copper arsenite must be minute, grain $\frac{1}{3200}$. The author summarizes his beliefs as follows: (1) The treatment of syphilis in all its various forms, of the cachectic and the parasyphilitic forms, is well sustained on sulphate of copper in the treatment dose of $\frac{1}{30}$ grain, aided by such a quantity of blue mass as is borne readily by the patient. (2) In old syphilis in any form the copper salt must be given in minute doses, and gradually increased as tolerance is established, until the usual dose of $\frac{1}{30}$ grain is given, when the mercurial should be added in a rather small dose. It is not infrequently better to give the medicine only on alternate days. (3) In acute syphilis the copper salt is to be given in the dose of $\frac{1}{30}$ grain, and the mercurial added at once, and increased as much as the patient will tolerate, in order that the disease shall be neutralized and eliminated as completely as possible. (4) Iodine, iron, arsenic, and tonics of any sort, while useful, occupy a subordinate place in the treatment of syphilis. (5) Alcohol, and especially tobacco, should be forbidden to syphilitics.

AMERICAN MEDICINE

Optimal α values

1. Physical Chemistry in Modern Medicine.
By JOHN A. MCGEE.
2. The Lymph Circulation in Modern Medicine.
By JOHN A. MCGEE.
3. The Causation and Treatment of Postnasal Discharge.
By FRANK G. LANE, M.D.
4. The Causation of Hypertension of the Throat and Tonsil (Illustrated),
By GEORGE B. WOOD.
5. Surgery of the Upper Right Quadrant of the Belly,
By J. F. FENNIE.
6. Chronic Lead Poisoning,
By JOHN J. GILBRIDE.
7. Holiday Repair versus Climacteric Decay,
By JOHN KNOTT.

1. **Intestinal Anastomosis.**—McGraw considers that of all the methods suggested for performing intestinal anastomosis, three alone are worthy of adoption. These are anastomosis by suture, by the Murphy button, and by his own method, elastic ligature. Of the three methods the author believes his own to be the best. For it he claims the following advantages: (1) Simplicity and rapidity of application. (2) Aseptic quality, since the rubber fills the openings through which it passes so completely that no extravasation is possible. (3) The delay in opening the passage until the intestines have become thoroughly glued together. (4) The ability to make with it an opening of any desired length. The indications for intestinal anastomosis are chronic or subacute or partial obstruction, displacements of the viscera which interfere seriously with their functions, and

ulcers and inflammations incurable by other methods. In acute obstructions anastomosis is not only a question of life. The mortality is a comparatively small fraction of the cases. In the early stages of the disease, the patient may be relieved by the removal of the obstruction, and the stomach may be opened into the duodenum or of the jejunum. The author devotes considerable space to the consideration of pyloric obstruction. He reports a number of cases of pyloric stenosis, and argues that the surgeon should not hesitate to operate and lend themselves readily to successful treatment. He concludes that the mortality rate in itself is not too high, and that the operation is not too late in many cases. The high mortality rate has been due to the fact that the operation has been generally employed as a last resort in nearly moribund patients. Many surgeons resort by preference to excision of the pylorus when the case seems to be a hopeful one. The author deplores the tendency of calling upon the surgeon too late in many cases of intestinal obstruction. This is due, not so often to the surgeon's failure as to the fact that many physicians are urging operation upon their patients when the necessity for heroic measures is evident to every one.

2. **The Lymph Circulation.**—McCallum attracts attention to the probable importance of the lymph circulation. It seems strange that so little is really known on the subject and that its study has been so neglected. The author does not add much to our knowledge of facts. He has limited himself to the task of reviewing some of the plausible theories on the circulation of lymph and its functions, and has added a few speculations of his own.

4. **Hypertrophy of the Pharyngeal Tonsil.**—Wood does not attempt to treat of all the possible sequences that may follow hypertrophy of the pharyngeal tonsil. The object of his paper is rather so to emphasize some of the more frequent and injurious sequelæ that no doubts shall remain in the reader's mind as to the advisability of operative intervention in cases of adenoid hypertrophy. The author does not admit that the tonsils have any different functions than those of any other lymph glands. That is, they supply certain lymphoid cells to the blood. Their loss can therefore be of little consequence to the organism as a whole. The only possible harm that can follow removal of these growths is a condition of dryness of the pharyngeal vault. This, when it occurs, is due more to excessive operative vigor than to any fault in the operation itself. As there are practically no counterindications to operation it follows that if it can be shown that blocking of the pharyngeal vault has any evil consequences, then operation is imperatively called for. The evils due to adenoids are of two kinds, mechanical and infectious. We need not follow the author too closely, as the subject is fairly well understood. The chief complications may be enumerated as follows: Mouth-breathing and its injurious effects resulting in a greater tendency to diseases of the lungs and bronchial tubes and to deformities of the thorax; otitic disturbances, severe enough at times to cause the patient's death.

deformities of the hard palate; and impairment of the child's mental vigor.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

October 3, 1903.

1. The Bacteria Concerned in the Production of Eye Inflammations, By ROBERT L. RANDOLPH.
2. Bacteria in the Eye, and Notes on Some Recent Work in Ophthalmic Bacteriology, By BROWN PUSEY.
3. The Essentials and Non-Essentials of Ophthalmic Asepsis, By HAROLD GIFFORD.
4. Some Clinical Aspects of Tubercular Peritonitis, By JOSEPH EICHBERG.
5. Tuberculosis in the Negro, By SEALE HARRIS.
6. Public Health Powers. Where Under Our Form of Government Do They Reside and How Should They Be Exercised? By W. H. SANDERS.
7. One Thousand Cases in Students' Out-Door Obstetric Practice. Report in First Series in the Out-Door Obstetric Department of the University College of Medicine, By JOHN F. WINN.
8. The Purification of Water Supplies by Slow Sand Filtration (*To be continued*).

1. **Bacteria in Eye Inflammations.**—Randolph discusses briefly the principal bacteria found in eye inflammations. In the group formed by the micrococci are found the *Streptococcus pyogenes*, the *Staphylococcus aureus* and *albus*, the pneumococcus, and the gonococcus. In the group formed by the bacilli are found the bacillus of Weeks, the diplobacillus of Morax-Axenfeld, the diphtheria bacillus, xerosis bacillus, tubercle bacillus, pyocyaneus, and colon bacillus. Several of these bacteria are often found in the normal conjunctival sac. All these organisms, irrespective of their pathogenicity, require to a certain extent favorable conditions, in order that they may produce harmful results. Abrasions or injuries of the ocular epithelium probably predispose more than any other conditions to eye infections. It is well to keep this in mind, as it will help us to realize how much harm can be done by misdirected attempts to render the conjunctival sac sterile by irrigations or other methods.

3. **Essentials and Non-Essentials of Ophthalmic Asepsis.**—Gifford states these two fundamental propositions: (1) The conjunctival sac, in the great majority of cases, contains either pathogenic germs, or germs which are capable of becoming so under favorable conditions. (2) It is a practical impossibility to rid the conjunctival sac of these germs. If these two propositions are kept in mind it will be evident, asserts the author, that many so-called precautions against infection can, with advantage, be dispensed with. We can only give dogmatic assertions in place of the author's carefully discussed recommendations: (1) Preparation of the skin and lids. This can all be dispensed with. The only essential requirement is to cut off the lashes. (2) Preparation of the normal conjunctiva. This should be conspicuous for its simplicity or even for its absence. In selected cases irrigation with boric acid solution is admissible. In cataract extraction the conjunctiva may be carefully wiped at the point at which the knife must enter. (3) Preparatory bandages should not be used. (4) If a cataract operation

becomes necessary in a patient with infected tear passages preliminary treatment should be instituted. If the tear passages are normal and the patient is seen not more than twenty-four hours before operation no precautions need be taken. (5) After serious operations upon the eye, the author uses a bandage in order to obtain rest. If there is any discharge, a wet sterile dressing is to be preferred to a dry one. The chances of infecting an eye from the bandages is remote. They need not be sterile. (6) All instruments should be boiled. They will not lose their edge if this is properly done. (7) The operator should give his hands a good scrubbing with sterile soap and water; this is sufficient. He should wear a gown or jacket, sterile. It is essential that he should cover his mouth, nose, and hair with a double layer of sterile gauze.

5. **Tuberculosis in the Negro.**—Harris finds that the death rate from tuberculosis is three times as great for the negro race as for the white race. This is for countries in which the two races live together. This excessive mortality is not due to a natural predisposition for the disease. Before the war tuberculosis was almost unknown among the slaves. It does not occur on the west coast of Africa, except where it has been imported by the white race and acquired by the negroes living a semicivilized life. The causes that most powerfully contribute to the spread of tuberculosis among the negroes are shiftless living (poor personal hygiene, overcrowding, and insufficient food); syphilis; gonorrhœa. The author asserts that the negro's small lung capacity, as compared with that of the white, and his deficient brain capacity render him less resistant to the disease when once acquired. Unless the hygienic and moral surroundings of the race are greatly improved there is danger that it may become extinct. A Southern observer has stated that the industrial revival of the South, by enabling prostitution to become a paying business, will, owing to increase in venereal diseases and the consequent increase of tuberculosis, end by causing the negro race to die out.

MEDICAL NEWS.

October 3, 1903.

1. The Use of the X Rays in the Treatment of Diseases of the Skin, Certain Forms of Cancer, of the Glandular System and of Other Diseases, and as a Means of Relieving Pain, By FRANCIS H. WILLIAMS.
2. Treatment of Migraine, By B. K. RACHFORD.
3. Paroxysmal Hæmatinuria (Hæmoglobinuria a Frigore), By W. GILMAN THOMPSON.
4. Removal of a Heavy Silk Ligature from Around the Right Pneumogastric Nerve—Clinical Symptoms Before and After Removal, By CHARLES A. POWERS.
5. A Review of Some Recent Investigations Relating to the Pancreas, By T. STUART HART.
6. The Obstetric Significance of Retrodisplacements of the Uterus, By SAMUEL M. BRICKNER.

3. **Paroxysmal Hæmatinuria.**—Thompson reports two cases of paroxysmal hæmatinuria. The two cases are noteworthy for the age (three and four years respectively) at which the symptoms began, for their long duration (fourteen and six-

teen years), the prominence of urticaria, œdema, and local cyanosis, and the probable existence of hereditary syphilis. The author discusses the geographical distribution of the disease, its symptomatology, its imperfect pathology and obscure ætiology. The theories of the nature of paroxysmal hæmaturia are many and unsatisfactory. The author suggests the following as a definition of the disease: "A profound neurosis, chiefly affecting the vasomotor system, and called into activity by exposure to moderate degrees of cold, by muscular fatigue or mental emotion." The only condition that might possibly be confounded with the affection we are considering is malarial hæmoglobinuria. The features of diagnosis between malarial hæmoglobinuria and the paroxysmal type are distinct. With the former the incidence of the disease in the tropics, its periodicity, its relation to quinine, the frequent presence of the plasmodium malarie, and of typical cachexia, and finally the longer duration and fatality of the attacks are characteristic. Malarial hæmoglobinuria usually presents prodromal symptoms, lasting through a period of hours or days, such as fever, malaise, anorexia, and lumbar pains; vomiting is more common, chill more intense, diarrhœa is severe, and anuria and nephritis may develop. Besides these features, in malaria there is an absence of the special angeioneurotic symptoms that characterize the paroxysmal form, such as urticaria, local cyanosis, and modifications in arterial tension. In the paroxysmal form the type of patient—usually more or less degenerate—is different, and so are the influence of cold and the methods and results of treatment. In fact, the presence of hæmatin or hæmoglobin in the urine is the only symptom which the two disorders uniformly present in common. The treatment of paroxysmal hæmoglobinuria is most satisfactory when syphilis is its chief ætiological factor. Antisyphilitic treatment will then, often, effect a cure. In other cases the following measures will be found of use: Removal to a warm climate during the winter months or, where this is not possible, the avoidance at home of all sources of mental and bodily fatigue and careful protection of the body against chilling. All stimulants should be avoided since the depression which is apt to follow their use may bring on an attack. Drugs are of little or no use in the treatment of the condition. Tyson has suggested the advisability of trying suprarenal extract, but the author is of opinion that thyroid extract would be likely to give better results. To abort an attack the hot bath and a hot drink are at times of service. The diffusible stimulants, chloroform water, Hoffmann's anodyne, or the aromatic spirits of ammonia may prove of use.

4. Symptoms Due to the Accidental Ligation of the Right Vagus.—Powers reports the following case: A man, twenty-eight years old, had a number of tuberculous glands in the right side of the neck removed by operation. On recovering from the anæsthetic the patient developed these symptoms: Severe, continued, spasmodic cough, great distress and loss of voice; great swelling and fever; loss of voice continuing for two or three weeks. The loss of voice gradually disappeared but cough could always be produced by pressing upon the scar.

One year after operation these points were noted: A sinus at the point of operation with the end of a silk ligature projecting from it. Traction on this ligature gave rise to intense coughing, pain, shortness of breath and vomiting, the patient sinking to the floor with a cyanosed face and hardly able to get his breath. A secondary operation was performed and the ligature removed. Some difficulty was experienced during the operation, owing to the fact that the gentlest interference with the ligature and the mass of granulating tissue in which it was imbedded was followed by alarming coughing and cyanosis. For some time after the removal of the ligature pressure over the part of the wound from which it was extracted was followed by cough. At operation it was impossible to demonstrate visually that the ligature did encircle the vagus nerve but the author entertains no doubt but that it did.

October 10, 1903.

1. Symposium: The Teaching of Therapeutics,
By REYNOLD WEBB WILCOX.
2. From Pharmacological Science to Therapeutic Art,
By ELI H. LONG.
3. Recent Advances in Genitourinary Surgery,
By JAMES PEDERSEN.
4. On Last Year's Progress in Surgery, By CARL BECK.
5. Recent Advancement in the Therapeutics of the Eye,
By JOHN E. WEEKS.
6. Report on Laryngology, By CHARLES H. KNIGHT.
7. Recent Advances in Electrotherapeutics,
By WILLIAM J. MORTON.
8. Recent Advances in Orthopædic Surgery,
By HENRY LING TAYLOR.
9. Notes on Obstetrical Therapeutics,
By CHARLES M. GREEN.
10. Recent Advances in the Therapeutics of Pædiatrics,
By NOBLE P. BARNES.

NOTE.—Articles 3, 4, 5, 6, 7, 8, 9, and 10 are reviews of the recent progress that has been made in the various branches of medicine set forth in the titles. As the articles are summaries of recent medical achievements and as it would take almost as much space for a summary of them as they themselves cover, their consideration is omitted.

1 and 2. The Teaching of Therapeutics.—Wilcox asserts that, in order that the teaching of therapeutics may be adequate, the following conditions must be fulfilled: (1) Students must be made familiar with the various remedial physical measures and remedies and the methods of preparing the latter. (2) Knowledge of the action of remedies must be imparted by demonstration and individual experimentation. (3) Students must be shown the good and evil of which remedies are capable, by the practical study of the treatment of symptoms and diseases. (4) Students must be given accurate criteria for the exhibition of the various remedies and must understand the logic of their use.

Long reviews some of the shortcomings in the present methods of teaching therapeutics and, among a number of suggestions for the improvement of our present methods, emphasizes the two following points: (1) That more time be devoted to the teaching of practical therapeutics in the fourth year of the college course. (2) That in the fourth year the student should have impressed upon him the difference between treating a definite disease and treating the patient who is suffering from that disease.

Proceedings of Societies.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNÆCOLOGISTS.

Sixteenth Annual Meeting, held in Chicago, September 22, 23, and 24, 1903.

(Continued from page 727.)

The President, Dr. L. H. DUNNING, of Indianapolis, in the chair.

Report of a Fourth Consecutive Successful Operation for Acute Perforating Gastric Ulcer with General Infection of the Peritoneal Cavity.—Dr. H. HOWITT, of Guelph, Ontario, presented a paper on this subject. Acute gastric ulcer perforation, as understood by him, referred to those cases in which Nature failed to prevent the escape of gas, liquid, or other contents of the stomach by adhesion of the part to adjacent structures. In reference to successful treatment, attention was called to the importance of early diagnosis and prompt action on the part of the surgeon. He believed that the diagnosis should be made without difficulty when the perforation occurred in a young, anæmic girl who had a previous history which indicated the presence of an ulcer, and that it should not be difficult in the majority of the other cases, for there was generally a history of gastric distress after meals, and frequently there were other symptoms to indicate the trouble. With or without such previous history, the sudden onset of intense pain in the epigastric region, the pronounced shock, the rigidity of the abdominal wall, and the thoracic character of the respiratory movements aided in arriving at a correct conclusion; and, if in addition to these the initial pain radiated in a certain direction, and the position of greatest suffering changed and gradually took a downward course in the abdomen, the diagnosis might be made without delay. In the rare instances of rupture of the gall bladder or perforation of the duodenum in which the symptoms closely resembled those of gastric perforation, the indications for prompt surgical treatment were practically the same. In perforation of the anterior wall to the left of the median line, the material, and consequently the pain, followed a course along the inner side of the descending colon; in all other situations along the descending colon toward the pelvis.

The essayist favored a large abdominal incision, collapse of distended intestines by temporary enterotomy, and evisceration, with proper provision to keep the exposed parts warm and moist. Distention of the bowels was the general rule in these cases.

The administration of morphine in the early stage, before a diagnosis had been made, often prevented timely recognition and prompt action. It was the general practitioner who was first called, and until he became more familiar with the true import of the initial symptoms successful operations would not be common. He believed that the symptoms indicated the position of the ulcer in the stomach in a manner sufficiently definite for all practical requirements of

the surgeon. Before perforation took place, when the ulcer approached the peritoneal coat, a local sensitive area of peritonitis was produced, and it was very sensitive to pressure or other form of irritation. Hence the posture of the patient was that which avoided pressure and kept the contents of the stomach away from the ulcer. For instance, when the ulcer was on the anterior wall, the patient was more comfortable when lying on the back, and so on, according to the position of it. When it was on the anterior wall, point-pressure of a superficial character might, by causing severe pain, indicate the exact position. Whether caused by pressure, by food, or otherwise, the pain, when severe, tended to radiate in certain directions, according to the position of the ulcer: Thus, if it was near the pylorus and on the anterior wall, to the right, or to the right and downward; on other parts of the anterior wall, to the left and upward to the shoulder; on the posterior wall, to the back immediately behind its situation and to the right or left, according to whether it was at the right or left of the spinal column, and upward to the interscapular space. In acute perforation of the stomach wall with distention of the bowels the organ was collapsed and crowded on to the ribs and diaphragm in such a manner as to render it impossible for any surgeon to deal with the trouble without exposing more or less of the intestines. A large incision, collapse of the distending coils of intestines by temporary enterotomy, and evisceration rendered the work easy and more expeditious, and with less damage to the delicate parts than was possible by any other method. When the perforation was large drains were used in each flank and in the pelvis, not through a large incision, but through separate stabs.

Besides a brief synopsis of each of his former operations already reported, the paper contained a report of his fourth case, in which the perforation was on the anterior wall. It was closed with fine silk sutures. His method of sight inspection and flushing of all parts of the abdomen and pelvis with a large forcible stream and drainage was carried out. The patient recovered and was well to-day.

Should the Uterus and Ovaries be Removed in Operating for Double Pyosalpinx?—Dr. C. C. FREDERICK, of Buffalo, read a paper on this subject. The history of operative procedures in the class of cases under discussion had passed through three well defined periods. The operation, as first practised by Tait and his followers for several years, consisted in removing both the tube and ovary through the suprapubic incision, leaving the uterus. In making a pedicle common to both tube and ovary there was of necessity an incomplete removal of the tube, leaving in most cases a part of the proximal end. Many of the patients were cured, but others were not cured, the failure being in many instances due to a continuance of the diseased process in that part of the tube remaining. Some of them who had undergone this incomplete operation had again been operated upon; the uterus was removed, and in many cases a cure resulted. The natural infer-

ence was that the uterus was the offending organ which prevented a cure after the first operation; hence arose the teaching that the uterus should be removed with the diseased tubes, in order to insure success. Then came the resort of the French school to the vaginal operation, and then every vestige of uterus, tube, and ovary was removed, whether it was necessary or not.

Learning by observation and being obliged to treat these poor sufferers had gradually awakened in the minds of many operators a desire to prevent such results, and gynecologists should be gratified to see a return to abdominal section, with its possibilities of conservative surgery.

After an experience of about fifteen years with the various surgical procedures, and noting the effects of these operations, gynecologists were in a position to appreciate quite accurately the amount of pain, discomfort, and illness due to disease of the various anatomical parts of the woman's sexual apparatus. As a result of these observations and deductions, it was not necessary to sacrifice all these organs when they were not all hopelessly diseased. In other words, gynecologists were justified in removing nothing but those organs which were distinctly diseased, and they were in duty bound to retain for the woman all that were not diseased. He believed it could be stated as a surgical principle which could not be questioned that the duty of the gynecologist, when consulted by a patient for operation, was to afford that patient the greatest possible relief from the symptoms complained of with the least mutilation and the preservation of every organ possible to enhance the most perfect performance of all bodily functions. The rule should be to save as much healthy ovarian tissue as possible, even if it was only the fourth or eighth part of one ovary. In some rare instances the uterus should be removed, but the occasion was rare. If the condition was known to be tuberculous, the uterus should certainly be removed. But even if both tubes and uterus were taken out, one should still preserve all the ovarian tissue possible. For the past five years the author had been studying the results of leaving healthy ovaries in those cases of fibroids needing hysterectomy. The results had been very satisfactory. He was thoroughly convinced that gynecologists had no right under any circumstances to sacrifice an ovary or any part of one which was not absolutely and incurably diseased. The uterus should not be removed if it could be retained. The surgeon should not remove any more ovarian tissue than necessary, but the tubes should be removed *in toto*; by so doing the surgeon would best fulfill his duty to his patient by making her a more perfect woman physically, mentally, and physiologically.

This paper was discussed by Dr. Robert T. Morris, Dr. Rufus B. Hall, Dr. Walter B. Dorsett, Dr. Miles F. Porter, Dr. Byron Robinson, Dr. W. D. Haggard, Dr. Albert Goldspohn, Dr. E. C. Dudley, Dr. J. H. Carstens, Dr. Frederick Blume, Dr. John B. Murphy, and Dr. Charles L. Bonifield, all of whom favored the conservation of as much ovarian tissue as possible in operating for pyosalpinx.

(To be continued.)

New Inventions.

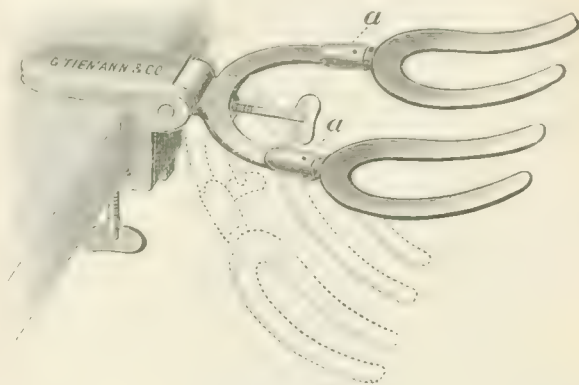
A PORTABLE HEAD REST.

By HENRY WALLACE, M. D.,

BROOKLYN.

The head rest which is here represented was designed to meet a need in house to house operating in throat cases where the horizontal position is used.

It is simple, strong, and compact, may be at-



tached to any kitchen table, and does away with an extra assistant to steady the head. The swivel joints at *a a* make it adaptable to any size of head, and by means of a fixation screw may be set at any angle.

It has been well made by Tiemann & Co., of New York, and is herewith presented with the hope that it may prove a useful addition to the throat surgeon's armamentarium.

183 CONGRESS STREET.

Miscellany.

Burns from White Hot Wire.—Sikulsky, according to *Bulletin médical* for July 11th, has had considerable experience with burns from wire rendered incandescent by electricity; they resemble cuts rather than burns. In one case, there was a deep section of the upper third of the forearm. Sikulsky excised the burned walls of the wound with the actual cautery, stimulated the cut portion of each muscle, sutured each separated tissue, and finally sutured the skin. Union took place by first intention. In a transverse wound of the wrist, he used the same measures with precisely the same result.

Crystallized Wisdom: The Knowledge of the Ancients.—"The plainest moral to be deduced is that a large deal of the ancient wisdom is really wisdom. It has been an egotistic habit to republish the nonsense and quackeries and superstitions of medical history as conceited proofs of how superior we are to our forbears. This was as foolish as it was untrue. We are not so mightily superior as we think." George M. Gould, *Medical Discoveries by the Non-Medical, Journal of the American Medical Association*.

Book Notices.

Handbook of Climatology. By Dr. JULIUS HANN, Professor of Cosmical Physics in the University of Vienna, etc. Part I. General Climatology. Translated with the Author's Permission from the Second Revised and Enlarged German Edition, with Additional References and Notes, by ROBERT DE COURCY WARD, Assistant Professor of Climatology in Harvard University. New York: The Macmillan Company, 1903. Pp. xv-437. (Price \$3.00.)

The translation of part of the second edition of the large German work of Professor Hann was undertaken by Dr. Ward with the object of having it serve as a standard textbook in the course in general climatology in Harvard University. The first volume of the second German edition is the part he has translated. It deals with general climatology and is perhaps the best and most authoritative work on that subject in any language.

The changes from the original are such as to adapt it to the needs of English and American students. They include reference to almost all the important publications which have appeared subsequent to the completion of the original work. Part I deals with the climatic factors, temperature, humidity, precipitation, and cloudiness, with winds, pressure, and evaporation, with the composition of the atmosphere and with phenological observations. Part II considers solar climate and the chief factors of physical climate, continental and marine climates, and mountain climate.

If for no other reason than that Dr. Ward brings this important work to the ken of English-reading physicians, he is deserving of praise. In addition, Dr. Ward has been the means of directing renewed attention to this important but neglected branch of medical treatment.

The Practical Medicine Series of Year Books, Comprising Ten Volumes on the Year's Progress in Medicine and Surgery, Issued Monthly, Under the General Editorial Charge of GUSTAVUS P. HEAD, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume VI, General Medicine, Edited by FRANK BILLINGS, M. S., M. D. Head of the Medical Department, and Dean of the Faculty of Rush Medical College, Chicago, and J. H. SALISBURY, M. D., Professor of Medicine, Chicago Clinical School. May, 1903. Chicago: The Year Book Publishers, 40 Dearborn Street.

This volume, one of the ten of the yearly series, is devoted to the topic of general medicine. It contains in the main the newer facts disclosed in the year's progress which the author considers important. The articles on typhoid and paratyphoid fever are especially good, and that on diseases of the pancreas contains full mention of the work of Opie, Movnihan, and Mayo Robson.

The Praxis of Urinary Analysis. A Guide to the Chemical Analysis of Urine. With Directions for Preparing Artificial Pathological Urines for

Practising the Various Tests, and an Appendix on the Analysis of Stomach Contents. By DR. LASSAR-COHN, Professor in the University of Koenigsberg. Authorized Translation from the Author's Enlarged and Revised Second Edition, by H. W. F. LORENZ, A. M., Ph. D. (Berlin), Late Instructor of Organic Chemistry in the University of Pennsylvania. First Thousand. New York: John Wiley & Sons. London: Chapman & Hall, Limited, 1903.

Though this book lacks some of the more recent tests, it is a convenient handbook so far as it goes.

Anatomy and Histology of the Mouth and Teeth. By I. NORMAN BROOMELL, D. D. S., Professor of Dental Anatomy, Dental Histology, and Prosthetic Technics in the Pennsylvania College of Dental Surgery, Philadelphia. Second Edition, Revised and Enlarged, with 337 Illustrations. Philadelphia: P. Blakiston's Son & Company, 1902. Pp. x-17 to 500. (Price, \$4.50.)

There can be only favorable words for this work. It is a welcome addition to the textbooks on dentistry, and marks a distinct advance in the didactic methods of this branch of medicine.

The first part treats of regional anatomy as it pertains to dentistry, the teeth, the oral cavity, and the adjacent organs being fully described. The second part deals with the histology and the embryology of the tissues and organs which call for familiarity on the part of the dentist and the dental student. The clearness of the text and the comprehensiveness of the illustrations make the book especially valuable to the student.

The book is printed in large, clear type, and contains fifty-three more illustrations than the previous edition.

A Textbook of Practical Medicine. By WILLIAM GILMAN THOMPSON, M. D., Professor of Medicine in the Cornell University Medical College, New York City, etc. Second Edition, Revised and Enlarged. Illustrated with Sixty-two Engravings. New York and Philadelphia: Lea Brothers & Company, 1903. Pp. 3 to 1,014.

In this new edition the entire volume has been revised, and where necessary parts have been completely rewritten. Most change is noticed in the articles on dysentery, malaria, and yellow fever and in the chapter on diseases of the digestive system. The same standard of excellence observed in previous editions is to be found in this one. The chapters on typhoid fever, tuberculosis, and diseases of the lung are especially good. Although the book is very large, consisting of over one thousand pages, and covering nearly the whole subject of medicine, some diseases, necessarily, are not treated of so fully as their importance would warrant. This is noticed in the article on nephritis and in those on the stomach.

The results of the author's experience of over twenty years as teacher and practitioner in hospitals and elsewhere are incorporated in this volume, and cannot but make his opinions of distinct value to all physicians. The style is clear and

concise, the subjects being presented in an entertaining manner. The work throughout is of a high standard, and we take pleasure in recommending it to both student and practitioner, who will find it of great service.

The Medical Epitome Series. Medical Jurisprudence. A Manual for Students and Practitioners. By EDWIN WELLES DWIGHT, M. D., Instructor in Legal Medicine, Harvard University. Series Edited by V. C. PEDERSEN, A. M., M. D., Instructor in Surgery and Assistant Anæsthetist at the New York Polyclinic Medical School and Hospital; Deputy Genitourinary Surgeon to the Out-Patient Department of the New York Hospital; Physician in Charge, St. Chrysostom's Dispensary; Anæsthetist to the Roosevelt Hospital (First Surgical Division). Philadelphia and New York: Lea Brothers & Co., 1903. Pp. 249.

In this little volume, which is intended especially for the use of students, the author has covered the ground of legal medicine in as thorough and comprehensive a manner as the limited space would permit. The book is divided into chapters, beginning with general principles and including such headings as Causes of Violent Death, Pregnancy, Abortion, Insanity, Life Insurance, etc. The salient facts are given in each case and the medicolegal aspect of the subject is also mentioned. The most important points under each heading are emphasized by italics, and wherever necessary the law is included. Numerous valuable points of information will be found in this little volume, and we take pleasure in commending it most highly.

The Christian Science Delusion. By Rev. A. C. DIXON. Boston, William H. Smith, 1903.

This pamphlet adds one more to the list of impeachments of that most monstrous delusion, Christian Science. It consists of three parts. The first views Christian Science in the light of common sense; the two other parts, in the light of the Christian revelation. For the physician it will prove a welcome auxiliary to more technical works; as it presents to the reader those arguments against the Christian Science delusion which are based on the purely spiritual aspects of the matter, and which will appeal to the lay mind more strongly than would strictly medical criticism.

The Law and the Doctor. A Compilation of the Fundamental Legal Principles Governing the Relation of the Physician to his Patients and the Community at Large. Volume I: The Physician's Civil Liability for Malpractice. Yonkers, N. Y. The Arlington Chemical Co.

This little work, compiled by a member of the New York Bar who has already ably identified himself with special research into the relation between the physician and the law, is comprehensive, terse, and accurate in those matters of which it treats. It cannot fail to be of service to every practising physician.

BOOKS, ETC., RECEIVED.

The Principles and Practice of Hydrotherapy. A Guide to the Application of Water in Disease. For Students and Practitioners of Medicine. By SIMON BARUCH, M. D., Professor of Hydrotherapeutics in the New York Post-Graduate Medical School and Hospital, Visiting Physician to the J. Hood Wright Memorial (formerly Manhattan General) Hospital; Consulting Physician to the Montefiore Home for Chronic Invalids; Member of the New York Academy of Medicine; formerly Gynæcologist to the Northeastern Dispensary; Physician for Eye, Ear, and Throat to the Northwestern Dispensary of New York City; Physician and Chief of the Medical Staff of the Montefiore Home for Chronic Invalids. Second Edition, Revised and Enlarged, with Numerous Illustrations. New York: William Wood & Company. 1903. Pp. x-496.

A Laboratory Guide in Urinalysis and Toxicology. By R. A. WITTHAUS, A. M., M. D.; Professor of Chemistry, Physics, and Toxicology in the Medical Department, Cornell University; Member of the American Chemical Society, and of the Chemical Societies of Paris and Berlin, etc. Fifth Edition. New York: William Wood & Company. 1903. Pp. v-115. (Price \$1.00 net).

The Principles and Practice of Surgery. Designed for Students and Practitioners. By GEORGE TULLY VAUGHAN, M. D. (University of Virginia); Assistant Surgeon-General, Public Health and Marine Hospital Service of the United States; Professor of the Principles and Practice of Surgery, Georgetown University, Washington, D. C. Philadelphia and London: J. B. Lippincott Company. 1903. Pp. xiii-569. (Price \$4.00 net).

Text-Book of Histology, Including the Microscopic Techniques. By Dr. PHILIPP STÖHR, Professor of Anatomy at the University of Würzburg. Fifth American from the Tenth German Edition. Translated by Dr. EMMA L. BILSTEIN, formerly Director of the Laboratories of Histology and Embryology, Woman's Medical College of Pennsylvania. Edited, with Additions, by Dr. ALFRED SCHAPER, Professor of Anatomy, University of Breslau; Formerly Assistant Professor of Histology, Harvard Medical School, Boston, Mass.; Formerly Docent of Anatomy and First Assistant at the Anatomical Institute of the University of Zürich. With 353 Illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1903. Pp. xvi-485. (Price \$3.00 net).

Klinische Monatsblätter für Augenheilkunde Unter Mitwirkung, von PROF. BERNHEIMER (Innsbruck), Doc. DR. BIETTI (Pavia), DR. BLESSIG (St. Petersburg), DR. L. DOR (Lyon), PROF. ELSCHNIG (Wein), PROF. FROELICH (Berlin), PROF. DA GAMA PINTO (Lissabon), PROF. DR. GROENOUW (Breslau), PROF. GRUNERT (Tübingen), PROF. GULLSTRAND (Upsala), Doc. DR. HEINE (Breslau), PROF. C. HESS (Würzburg), PROF. HOOR (Kolozsvár-Klausenburg), PROF. HOWE (Buffalo), PROF. MANZ (Freiburg), DR. MENACHO (Barcelona), PROF. MULDER (Groningen), DR. LEOPOLD MÜLLER (Wein), DR. T. NAITO (Tokio), DR. A. NATANSON (Moskau), DR. PERGENS (Brüssel), PROF. PETERS (Rostock), PROF. PFLUGER (Bern), PROF. SAEMISCH (Bonn), PROF. SATTLER (Leipzig), PROF. SCHLEICH (Tübingen), PROF. STORY (Dublin), DR. WINTERSTEINER (Wein). Herausgegeben von Dr. TH. AXENFELD, Professor in Freiburg, i. Br. und Dr. W. UHTHOFF, Professor in Breslau. XLI. Jahrgang. II. Band August. Mit 13 in den Text gedruckten Abbildungen. Stuttgart: Verlag von Ferdinand Enke. Preis pro Jahrgang von 12 Heften 24 Mark. Audegegeben am 3 September. 1903. Pp. 176.

A Dictionary of Medical Science. Containing a Full Explanation of the Various Subjects and Terms of Anatomy, Physiology, Medical Chemistry, Pharmacy, Pharmacology, Therapeutics, Medicine, Hygiene, Dietetics, Pathology, Bacteriology, Surgery, Ophthalmology, Otology, Laryngology, Dermatology, Gynæcology, Obstetrics, Pædiatrics, Medical Jurisprudence, Dentistry, Veterinary Science, etc. By ROBLEY DUNGLISON, M. D., LL. D., late Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College of Philadelphia, etc. Twenty-third Edition. Thoroughly Revised, With the Pronunciation, Accentuation, and Derivation of the Terms. By THOMAS L. STEDMAN, A. M., M. D., Fellow of the New York Academy of Medicine. Lea Brothers & Co., Philadelphia and New York. 1903. Pp. xii-1212.

Diseases of the Nose and Throat. By CHARLES HUNTOON KNIGHT, A. M., M. D., Professor of Laryngology Cornell University Medical College; Surgeon Manhattan Eye and Ear Hospital, Throat Department; Member of the American Laryngological Association, of the American Medical Association, of the American Academy of Medicine, of the American Therapeutic Society, of the New York Academy of Medicine, etc. 147 Illustrations. Philadelphia: P. Blakiston's Son & Company, 1012 Walnut Street. 1903. Pp. xv-423. (Price \$3.00 net).

Les Actualités Médicales. Les Médications Reconstituantes, la Médication Phosphorée, Glycéro-Phosphates, Lécithines, Nucléines. Par Henri Labbé. Chef de laboratoire à la Faculté de Médecine de Paris. Paris: Librairie J. B. Baillière et fils, 19, rue Hautefeuille, près boulevard Saint-Germain. 1904. Tous droits réservés. Pp. 95.

Official News.

Public Health and Marine Hospital Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending October 10, 1903:

Smallpox—United States.

Place.	Cases.	Deaths.
Alabama—Mobile.....	Sept. 27-Oct. 3.....	3
California—Los Angeles.....	Sept. 20-27.....	8
Illinois—Belleville.....	Sept. 27-Oct. 3.....	3
Maine—Grand Isle.....	Oct. 2.....	3
Maine—Madawaska Tp.....	Oct. 2.....	3
Maine—Van Buren.....	Oct. 2.....	2
Massachusetts—Cambridge.....	Sept. 27-Oct. 3.....	1
Massachusetts—Taunton.....	Sept. 27-Oct. 3.....	2
Michigan—Port Huron.....	Sept. 27-Oct. 3.....	3
Mississippi—Natchez.....	Sept. 20-26.....	1
Missouri—St. Louis.....	Sept. 29-Oct. 5.....	1
New York—Niagara Falls.....	Sept. 27-Oct. 3.....	1
Ohio—Dayton.....	Sept. 27-Oct. 3.....	2
Ohio—Lorain.....	Sept. 27-Oct. 3.....	1
Pennsylvania—Altoona.....	Sept. 27-Oct. 3.....	4

Smallpox—Insular.

Philippine Islands—Manila.....	Aug. 16-22.....	1
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Smallpox—Foreign.

Austria-Hungary—Prague.....	Sept. 12-19.....	3
Brazil—Rio de Janeiro.....	Aug. 31-Sept. 13.....	124
Belgium—Brussels.....	Sept. 12-19.....	64
Canada—Quebec.....	Sept. 27-Oct. 3.....	1
Chile—Antofagasta.....	July 25-31.....	20
France—Paris.....	Sept. 12-19.....	1
Great Britain—Birmingham.....	Sept. 12-26.....	15
Great Britain—Glasgow.....	Aug. 31-Sept. 25.....	1
Great Britain—Leeds.....	Sept. 12-26.....	24
Great Britain—Liverpool.....	Sept. 12-26.....	6
Great Britain—London.....	Sept. 12-26.....	8
Gt. Britain—Newcastle-on-Tyne.....	Sept. 12-19.....	16
Italy—Catania.....	Sept. 10-17.....	1
Mexico—Mexico.....	Sept. 13-27.....	6
Netherlands—Amsterdam.....	Sept. 20-26.....	4
Russia—Moscow.....	Sept. 5-12.....	2
Straits Settlements—Singapore.....	Aug. 16-22.....	1
Turkey—Constantinople.....	Sept. 7-20.....	3
Turkey—Smyrna.....	Sept. 7-20.....	118

Yellow Fever—United States.

Texas—Laredo.....	Sept. 28-Oct. 7.....	105
Texas—Minera.....	To Oct. 3.....	7

Yellow Fever—Foreign.

Brazil—Rio de Janeiro.....	Aug. 31-Sept. 13.....	1
Colombia—Panama.....	Sept. 21-28.....	2
Costa Rica—Limón.....	Sept. 18-24.....	6
Mexico—Nuevo Laredo.....	Sept. 30.....	12
Mexico—Progreso.....	Sept. 20-27.....	1
Mexico—Vera Cruz.....	Sept. 20-26.....	49
Venezuela—Maracaibo.....	July 5-11.....	1

Cholera—Insular.

Philippine Islands—Manila.....	Aug. 16-22.....	29
Philippine Islands—Provinces.....	Aug. 16-22.....	5,663

Cholera—Foreign.

India—Calcutta.....	Aug. 29-Sept. 5.....	8
India—Madras.....	Aug. 22-Sept. 5.....	11
Straits Settlements—Singapore.....	Aug. 8-22.....	11
Turkey—Syria, Birejik.....	Sept. 24.....	Prevaling.

Plague—Insular.

Philippine Islands—Manila.....	Aug. 16-22.....	4
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Plague—Foreign.

Brazil—Rio de Janeiro.....	Aug. 31-Sept. 13.....	42
Chile—Iquique.....	Aug. 21-28.....	14
Egypt—Alexandria.....	Aug. 29-Sept. 4.....	6
Japan—Yokohama.....	Aug. 22-29.....	1
Mauritius.....	July 17-Sept. 3.....	111
Turkey—Smyrna.....	Sept. 20.....	55
		1

Navy Intelligence:

Official List of Changes in the Medical Department of the United States Navy for the week ending October 10, 1903:

- BELL, W. H., Passed Assistant Surgeon. Detached from the *Yankton* and ordered to the Navy Yard, Portsmouth, N. H., for additional duty on the *Southery*.
- CARPENTER, D. N., Surgeon. Commissioned surgeon with the rank of lieutenant commander, from March 3, 1903.
- COWAN, J., Pharmacist. Detached from the Naval Magazine, Iona Island, N. Y., and ordered to Washington, D. C., for examination for retirement, and then home to wait orders.
- FISKE, C. N., Assistant Surgeon. Detached from the *Mohican* and ordered home to wait orders.
- GROW, E. J., Surgeon. Detached from the Naval Hospital, Mare Island, Cal., and ordered to the *Mohican*.
- MASRTTELLER, E. H., Surgeon. Detached from the *Panther* and ordered home to await orders.
- MILLER, J. T., Acting Assistant Surgeon. Detached from the Navy Yard, Mare Island, Cal., and ordered to the Naval Hospital, Mare Island, Cal.
- MCDONNELL, W. N., Acting Assistant Surgeon. Ordered to the Naval Academy.
- RICHARDS, T. W., Surgeon. Commissioned surgeon, with rank of lieutenant-commander, from March 3, 1903.
- RICHARDSON, F. A., Acting Assistant Surgeon. Appointed acting assistant surgeon with rank of lieutenant (junior grade), from September 29, 1903.
- THOMPSON, J. C., Passed Assistant Surgeon. Ordered to additional duty at the Navy Yard, Puget Sound, Washington.
- WRIGHT, B. L., Assistant Surgeon. Ordered to the Naval Hospital, Pensacola, Fla.

Births, Marriages, and Deaths.

Married.

HITT—OGLESBY.—In Washington, D. C., on Friday, October 2d, Dr. A. Winter Hitt and Miss Elise Oglesby.

HOFFMAN—BATTISON.—In Brooklyn, N. Y., on Tuesday, October 6th, Dr. Claude Graham Hoffman and Miss Olive Battison.

WAGNER—QUANZ.—In Saranac Lake, N. Y., on Thursday, July 2d, Dr. Arthur Wagner and Miss Marie Mildred Quanz.

WHITEHEAD—CLARK.—In New Orleans, Louisiana, on Wednesday, September 30th, Dr. C. P. Whitehead and Miss Clark.

Died.

BIRMINGHAM.—In Buffalo, N. Y., on Wednesday, October 7th, Dr. John J. Birmingham, in the fifty-second year of his age.

BOWEN.—In Philadelphia, Pennsylvania, on Wednesday, September 30th, Dr. George W. Bowen, in the fifty-sixth year of his age.

BRASHEAR.—In Upper Marlboro, Maryland, on Friday, October 2d, Dr. Basil B. Brashear, in the eighty-second year of his age.

BURCH.—In Baltimore, Maryland, on Friday, October 2d, Dr. J. Walter Burch, in the twenty-seventh year of his age.

DALE.—In North Andover, Massachusetts, on Wednesday, October 7th, Dr. William Johnson Dale, in the eighty-ninth year of his age.

ELDER.—In Toledo, Ohio, on Thursday, October 1st, Dr. George K. Elder, of Kansas City, in the fifty-first year of his age.

FRANKLIN.—In New York, N. Y., on Tuesday, October 6th, Dr. David Franklin, in the forty-first year of his age.

KAEMMERLING.—In Port Washington, Wisconsin, on Saturday, October 3d, Dr. George P. Kaemmerling.

SHEPERD.—In Trenton, New Jersey, on Wednesday, October 7th, Dr. Cornelius Sheperd, in the sixty-sixth year of his age.

WOOD.—In Jamaica, Long Island, N. Y., on Sunday, October 4th, Dr. William Dandison Wood, in the eighty-third year of his age.

New York Medical Journal AND Philadelphia Medical Journal. CONSOLIDATED.

A Weekly Review of Medicine

VOL. LXXVIII, No. 17.

SATURDAY, OCTOBER 24, 1903.

WHOLE No. 1299.

Lectures and Addresses.

PRESIDENT'S ADDRESS.*

By ALEXANDER HUGH FERGUSON, M.D.,

CHICAGO, ILL.,

PROFESSOR OF CLINICAL SURGERY, MEDICAL DEPARTMENT OF
UNIVERSITY OF ILLINOIS; PROFESSOR OF SURGERY, POST
GRADUATE MEDICAL SCHOOL; SURGEON-IN-CHIEF,
CHICAGO HOSPITAL, ETC., ETC.

Gentlemen and Members of the Tri-State Medical Society:

Man is a creature of desires. He is not self-sufficient. He is bound to the rest of the universe by tendrils, claws, and roots of the most relentless necessity. While he is made up of the substance derived from the earth, lives at the bottom of an aerial sea, administers the pompous functions of a household, and his desires are innumerable and often hopeless, still of all living beings he enjoys most that which is pleasant, and my pleasure to-day is the emotion accompanying the satisfaction of a desire to be respected and thought well of by my associates, and this you have manifested by the position with which you honored me a year ago. Let me assure you, gentlemen, that words cannot express the intensity of my grateful impulses for this distinction.

The Tri-State Medical Society has so healthfully and buoyantly reached its eleventh anniversary that its maturity and perpetuity are assured. While it has a high social significance to the profession and to all those where its meetings are held, still the main satisfaction lies in the fact that its chief aim is a consideration of the health and happiness of the people. What higher motive on earth is there than this? Our society is to be congratulated, not alone on its high aims, excellent accomplishments, and laudable desires, but also on its freedom from medical politics or the manifestation of seeking selfish personal aggrandizement on the part of its members. The best proof

of the truth of this is the absolute silence that always prevails regarding its future officers.

During the whole year just passed, no member has mentioned or hinted at successors to your President.

In order to maintain our exalted position among other and similar societies whose aims are equally altruistic, we must endeavor to live up to the laws of industry. Labor is not pleasure, in a philosophical sense; it is pain, and human beings through all ages have struggled to escape it. Man submits himself to labor because it is more pleasant than to starve, and also because it is "so refreshing to stand on the heads of our fellowmen to crow." This is human. Ubiquitous man, clannish man, strategic man, you cannot escape *work* by shirking, machinery, or cooperation, so long as the rainfall does not bring us anything more nutritious than water. This is the unanimous opinion of those most strongly suspected of being intellectual. Generations in the far future may live on sunbeams, but we who are now in Missouri, Iowa, and Illinois are constrained to be more naturalistic.

As it is with the individual, so it is with the society. Our organization must work to live. While voluntary contributions are praiseworthy and always welcomed, reports of cases instructive and valuable, and individual experimental contributions commendable, it has occurred to me that a more direct aim might be taken at some one special topic for each year. Let me suggest that, in addition to the ordinary programme, a symposium be outlined each year for the succeeding meeting, to be opened by, say, three members most distinguished in the line of work bearing on the subject of the symposium. A year's preparation and concentration, carefully produced before this society and liberally discussed will, I am consciously convinced, command the attention of the profession at home and abroad.

HUMAN IMPROVEMENT AND RACE CONSERVATION.

The medical profession gains more knowledge of man, physically, intellectually, and morally, than do those philosophers who write at great.

* The Eleventh Annual Meeting of the Tri-State Medical Society of Iowa, Illinois and Missouri, April 2 and 3, 1903, at Hannibal, Missouri.

length on sociology, and yet the doctor has not enriched the world with a better philosophy, for he has been kept too busy at conserving the individual. In order to improve humanity, some thought must be given to race culture, first from a physical standpoint, and then from the viewpoint of intelligence and morality. Its clear to me that this must be done by us. The generative stream is to be changed to improve man, not by what we call "natural selection," but by a prophylaxis against retrograde metamorphosis. The process of regeneration is, of necessity, one of healthy generation. Like begets like, and must always do so. We Caucasians are the palefaced duplicates of our progenitors, and our progeny will be a repetition of the past. The fundamental laws of heredity have been, and no doubt always will be, the same as they are to-day. Any physical change in form and mentality to improve man must be selected by man according to scientific environments, for he is the unrivaled reformer in the universe. The discrimination in favor of bringing fitter elements of reproduction together will be rational and conscious. Let us set ourselves to work to raise and develop a different type of bipeds from that we see nowadays occupying some palaces. Let us apply some of the principles that have improved the equine and bovine, to the hominine species. It is true that by the blindfold selection of infatuation, fair women and brave men have been and are now produced, but by a scientific selection we hope to develop more good, pure men, as well as strong and profound women. It is safe to say that upon the character and rigidity of the marriage discriminations will depend the impending millenium.

The true status of affairs is to be distinctly and profoundly realized, and from the darkness will come the spark of illumination. Sociological processes are the natural followers of biological changes. All must come through the gateway of the womb. It is not more babies the world needs, but more of a particular kind of babes—those free from congenital defects, hereditary diseases, and tendencies thereto, and babes of genius and virtue. What use have we for *innate* brats that can only travel to a degenerate maturity by the aid of the doctor. None whatever. Why should criminal blood be injected into posterity? Why should drunkards, kleptomaniacs, and moral degenerates be licensed to produce deficient beings like themselves? Tell me why a fool should propagate an idiot? Is there any legerdmain of logic that justifies society in allowing a hypochondriac to curse his progeny with wretchedness? Let me ask what are man's obligations to

the future. Are they to give more consideration to plants, flowers, dogs, cats, horses, and pigeons, than to rearing highminded and strongbodied boys and girls? Not at all! Defectives should no longer be produced, for they are only the sad survivals of an inglorious evolution forced upon humanity by the careless flotsam of a capricious heredity.

Then comes the question, Has society the right to protect itself and posterity against spurious products? Certainly! It is not merely a right, but a duty. The responsibility of all responsibilities is parenthood. Let it be more serious, deliberate, and conscientious, individually and collectively. From the lowest kind of perception, it is clear that idiots, felons, and incurables should not be represented in a new generation. It is just as clear to the doctor that a person suffering with syphilis, gonorrhœa, and tuberculosis should not be allowed to infect and afflict others, let alone the influence upon posterity caused by their marriage. No person should be allowed to marry without a certificate from a reputable physician, stating the physical findings of the person intending to marry. Let me entertain the hope that our society will impress the Legislatures of Missouri, Iowa, and Illinois with the necessity of judiciously controlling and guiding the generative stream.

With these few general remarks on man, allow me to offer a short contribution of my conservative work on the ovaries and tubes of women:

CONSERVATISM OF OVARIES AND TUBES.

There are many conditions of the ovaries demanding conservative operative procedures, such as single or multiple Graafian cysts, cyst of the corpus luteum, adhesions surrounding and imbedding the ovary, hæmatoma, dermoid cysts, and ovarian cystoma.

In Kelly's work, *Operative Gynæcology*, chapter xxv, you will find a remarkable production on Conservative Operations on the Tubes and Ovaries, which, up to the date of its publication, brought the subject abreast of the times, and more too, by adding the author's extensive personal experience in a most succinct manner.

Allow me to emphasize how unnecessary is removal of ovaries, unless they are hopelessly destroyed by infection, or are affected with papiloma, sarcoma, carcinoma, or tuberculosis. An ovary that appears normal should not be removed though the other has to be sacrificed. Even a small portion of one ovary should always be conserved. Bilateral amputation of both ovaries for disease of only one ovary, on the theory that the other one, though perfectly sound in appearance,

of normal size, shape, color, and consistency, may become likewise involved, is not justifiable, because we have abundant clinical experience to the contrary. It has come to the point that a technical reason is not an indication for bilateral or unilateral oophorectomy.

CONSERVATIVE OPERATIONS ON OVARIES AND TUBES.

A. Operations on Ovaries.

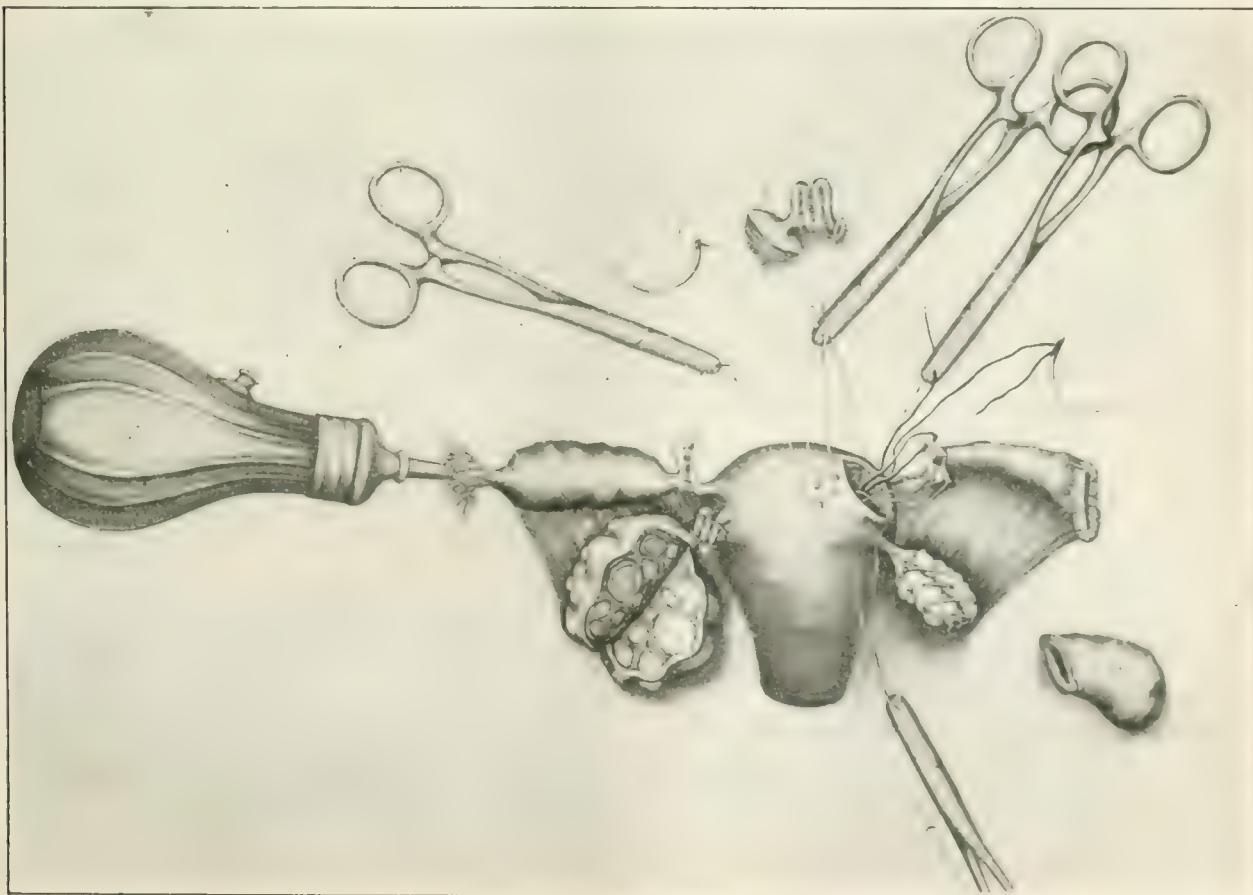
Total number of cases.....	69
Left ovary diseased.....	46
Right ovary diseased.....	23
Left tube diseased.....	22
Right tube diseased.....	17
Left ovary resected.....	26
Right ovary resected.....	16
Left ovary removed.....	20
Right ovary removed.....	7
Number of pregnancies.....	12
Ventrosuspension (Kelly).....	5
Anterior transplantation of the round ligaments (Ferguson)	17
Appendectomy	30
Cholelithotomy	13
Nephrotomy	5

B. Operations on Tubes.

I. *Hysterosalpingostomy* is an anastomosis between the uterus and the proximal cut end of a remaining portion of a Fallopian tube that has had its obstructed proximal end, along with the horn of the uterus on the same side, excised.

In order that this operation may be performed as aseptically as possible, I first cleanse the utero-vaginal mucous membrane, using pure lysol to the inside of the uterus, after dilatation and curetting. Any operations indicated on the cervix, vagina, or perinæum are not performed until the more important work within the abdomen is done first. Vaginal section is not at all suitable for the execution of hysterosalpingostomy, salpingostomy, bisection of ovaries, appendectomy, etc. It is necessary to enter the abdominal cavity suprapubically, in order properly to expose, examine, and conserve chronically inflamed and partially destroyed Fallopian tubes and ovaries.

Indications.—The principal indication for hysterosalpingostomy is obstruction of the proximal end of the Fallopian tube, which may be due to chronic inflammation or a myoma. The age of the patient must be considered. She must be still menstruating. Even women nearing the menopause should be allowed to retain the power to become pregnant. The operation is suitable in cases of hydrosalpinx; cases where the fimbriated end is pervious and the proximal end closed, and chronic pyosalpinx when the contents of the tube are sterile. There would be no object in performing this operation when both ovaries are destroyed by disease, as, for instance, in multiple



Salpingostomy and Hysterosalpingostomy

abscesses of them, or when they should be removed for some other cause.

Operation.—Determine that the tube is obstructed at its proximal end by inability to pass a probe or to force air through it. Then remove the obstructed portion, including the horn of the uterus down to the uterine mucous membrane, care being taken not to interfere with the vessels immediately below the Fallopian tube. Split the proximal end of the remaining portion of the tube about half an inch. Pass a mattress suture through the uterine wall from the serous to the edge of mucous surface, continue it through the one-half of the split proximal end of the tube from serous to mucous surface, then back from mucous to serous surface of the tube, and finally from mucous to serous surface of uterine wall. Deal in a similar manner with the other half of the split end from the opposite surface of the uterine wall.

Traction is now to be made on these two mattress sutures, and the Fallopian tube is thus drawn into the wound in the uterus, its mucous membrane becoming continuous with that of the uterus, and its serous surface coming in contact with the raw uterine tissue on both sides. The sutures are then tied. Pass two or three interrupted sutures above and internal to the tube to close the wound in the uterus, care being taken not to constrict the Fallopian tube. The stitch next the tube must grasp its outer coats, so as to secure more firmly its position. All sutures are made with chromicized catgut, No. 0.

It will thus be seen that a probe passes readily through the Fallopian tube into the uterine cavity. The tube rests at the lower and outer angle of the wound, and every facility is afforded for its fixation and permanent patency.

2. *Salpingostomy.*—Determine that the tube is obstructed, by inability to pass a probe or to force air into the tube. Remove the obstruction together with the distal end of the tube. This is best done diagonally across the tube from above downwards and outwards, leaving a projecting mucous membrane and as large an opening as possible.

On the superior surface of the tube pass a suture through the serosa a short distance from its free edge and continue it through the mucous coat close to its edge. Pass similar sutures on the inferior and lateral surfaces sufficient to insure a perfect union of the mucous surface. It will now be seen that a probe can be readily passed through the opening into the tube and the uterine cavity.

Chromicized catgut No. 0 is used as suture material.

CASE I.—June 13, 1899. Mrs. F. B. presented herself at the hospital, complaining of leucorrhœa, dysmenorrhœa, pain in the pelvis, painful coitus, all of which she dates from a miscarriage a year previously.

Operations (contemporaneously):

Abdominal section.

1. Tubo-oophorectomy on right side for tubo-ovarian sepsis.

2. Salpingostomy on left side for closed fibrated end.

3. Hysterosalpingostomy on left side for obstructed proximal end of tube.

Ovary apparently normal.

Became pregnant six months later; criminal abortion produced, sepsis followed, and then, on presenting herself, I found it necessary to remove uterus, left tube and ovary.

CASE II.—Mrs. G. D. J., American, aged thirty-two years; weight, 138 lbs. Entered the Chicago Hospital, April 8, 1902, complaining of frequent dull pains in the lower abdomen and pelvis. Irregular, and at times painful, menstruation. Attacks of pain in regions of gall bladder and right iliac fossa.

The pain in the pelvis, which began eight years ago following the birth of a child, was partially relieved by excision of the right ovary and tube a year previous, by myself, but the dysmenorrhœa persisted as severely as before the operation. The pain in the right hypochondriac and iliac fossa began about four years ago.

Operations (contemporaneously):

1. Curetting, found fungoids.

2. Appendectomy, appendix catarrhal and club-shaped.

3. Cholelithotomy, gall stones removed.

4. Hysterosalpingostomy.

5. Salpingostomy.

6. Bisection of left ovary and removal of Graafian cysts.

7. Shortened ovarian ligaments.

The patient left hospital on nineteenth day, quite well.

Present condition: Relieved of all symptoms, and enjoying perfect health. Her transformation from constant misery and broken down constitution to happiness and robust health is apparently complete.

CASE III.—Miss B. B., Chicago, aged twenty-two years; weight, 120 pounds. Actress. Entered the Chicago Hospital, June 4, 1902, complaining of painful, irregular menstruation, often lasting five or six weeks; dragging pain in back, sides, and left leg. Severe headaches, sleeplessness and nervousness. Loss of strength and weight.

Four years ago patient had an attack of peritonitis, with a pyosalpinx, which was then drained through the vagina. These followed confinement of seven months' standing, and two subsequent miscarriages. Until her confinement, patient had enjoyed excellent health.

Operations (contemporaneously):

1. Appendectomy, appeared normal externally, but it had three strictures within.

2. Trachelorrhaphy.

3. Salpingectomy (right). Both ovaries apparently normal.

4. Hysterosalpingostomy (left).

5. Anterior transplantation of round ligaments for retroversion or retroflexion of uterus.

Left hospital in two weeks, feeling quite well.

Present condition: Patient in excellent health, and perfectly relieved of all symptoms. March 24, reports that she is in perfect health.

CASE IV.—Mrs. W. R. M., American, aged thirty-eight years. Housewife. Entered Chicago Hospital, July 17, 1902, complaining of pain in left iliac fossa and pelvis. Backache and dragging pains. Painful menstruation. Headache, nervousness and sleeplessness. Ten years ago, following a miscarriage, symptoms began to develop. At various times since then, patient has received some medical treatment. Six years ago gave birth to a baby, and since then symptoms have been greatly aggravated.

Operations (contemporaneously):

1. Curetting, nothing found.
2. Perineorrhaphy, two-third laceration.
3. Trachelorrhaphy, stellate laceration.
4. Appendectomy, fecal bean confined near tip.
5. Bisection of right ovary and removal of cysts, and half the ovary.
6. Shortening of ovarian ligament for prolapse of ovary.

7. Salpingostomy (right).

8. Hysterosalpingostomy.

9. Oophorectomy (left), cystic and imbedded.

10. Anterior transplantation of round ligaments for retroversion.

Patient made good recovery, and left hospital in three weeks.

Present condition: March 24, 1903. Feeling well. No trouble at seat of operation. Has lumbar pain off and on.

CASE V.—Mrs. S., English; aged thirty-nine years; housewife. Entered Chicago Hospital, January 30, 1903, complaining of severe dysmenorrhoea. At times, pain between menstrual periods. These symptoms came on after marriage, thirteen years ago, without apparent cause, and have been gradually growing worse. Menstruation has been regular. Has no children.

Operations (contemporaneously):

1. Curetting, uterus normal inside.
2. Myomectomy (six small tumors).
3. Right hysterosalpingostomy and salpingostomy.
4. Left salpingo-oophorectomy (small tubo-ovarian abscess).
5. Appendectomy (catarrhal).

Left hospital, feeling quite well. Present condition, excellent. Enjoys life, and does her own work.

CASE VI.—Mrs. A., American, aged thirty-five years; weight, 120 pounds. Housewife. Entered Chicago Hospital, March 4, 1903, complaining of dragging pain in back, pain in pelvis, dysmenorrhoea, and burning pain in stomach and in right hypochondriac region. Symptoms began about seven years ago, without apparent cause and have persisted with gradual increase, especially in recent months.

Operations (contemporaneously):

1. Appendectomy (obstructed by adhesions).
2. Double hysterosalpingostomy and salpingostomy.
3. Bisection and removal of cysts of both ovaries.

Present condition: Patient left hospital feeling well.

10 DREXEL SQUARE.

CANCER OF THE PROSTATE.*

By ROBERT HOLMES GREENE, A. M., M. D.,

NEW YORK,

GENITO URINARY SURGEON TO THE CITY (CHARITY) AND
FRENCH HOSPITALS.

Having to report a case of cancer in the prostate, the writer looked over pretty carefully almost all the obtainable literature on the subject, reference to which will be found at the end of this article, in an endeavor to classify the various symptoms of its early occurrence, observing the presence of which we may hope to arrive in some cases at a diagnosis, at a period when surgical interference will entirely eradicate the growth or prolong the life of the individual afflicted. In some respects a review of the early literature on the subject in conflicting. It was first recognized by Langstaff as early as 1817. About that time, together with sarcoma and the ordinary so-called hypertrophy of the prostate, it was classed under the title of scirrhus tumor. It is only during the past few years that differentiation has been made between cancer and sarcoma of the prostate, and very recently indeed by means of large numbers of sections made through enlarged prostates, has it been found of small size confined to one lobe of the organ.

The greater part of the most valuable work on the subject, some of which is very exhaustive, has been done by the French and German observers. The splendid and early work of Sir Henry Thomson should not be overlooked (67).

FREQUENCY.

It is pretty hard from any statistics at present obtainable to draw any positive conclusions as to how frequent primary cancer of the prostate really is. This much may be said, however, that it now seems evident that the so-called hypertrophied prostate of the aged is a chronic inflammatory process. It is, therefore, natural to expect cancer to follow in quite a large proportion of such cases, as it follows chronic inflammatory conditions occurring in other portions of the body. Heineman (40) considers it to occur in 0.4 per cent. of all cases of cancer. In Czerny's clinic there were six cases in eight years.

* Read before the Association of American Genitourinary Surgeons, at Washington, May 12, 1903.

The above statistics are of course fragmentary. Properly to obtain statistics of value, large numbers of prostates have to be examined and many sections made through each prostate; otherwise a cancer occurring in one lobe might be overlooked, if it was not large enough to make any great difference in the appearance of the gross specimen. A case of this description has been reported by Jacobson. The writer's case, to be reported later on, was of this type. Alberan & Halle (74), having subjected one hundred of the so-called hypertrophied prostates to a most careful examination, found the proportion of cancers to be as high as fourteen out of the hundred. While it seems possible that some of the cases reported by them were not those of true cancer, still the careful reading of their article giving the details of a most exhaustive examination of the subject cannot fail to lead one to the conclusion that the proportion of cancers occurring in the so-called hypertrophied prostates is a high one. Greene and Brooks (36) found three cancerous specimens in the examination of fifty-eight enlarged prostates, and, as one of the conclusions in their article, state that cancer prostate is of more common occurrence than has been generally supposed to be the case.

The writer is inclined to think it probable, from the foregoing evidence and from the fact that an increased number of cases are being constantly reported, that cancer occurs in a proportion as high as from 5 to 10 per cent. of old men suffering from prostatic diseases.

GLANDULAR METASTASIS.

On the subject of early infection of the lymphatic glands from cancer of the prostate, some serious work of great value has been done. The most exhaustive treatise on the subject is that of Pasteau (54). He either made himself, or examined the records of the autopsies of, 71 cases of cancer of the prostate, to ascertain the frequency with which the lymphatic system was affected. He found the proportion as high as 85 per cent.—some 30 per cent. of inguinal gland enlargement. He naturally considers that in about all cases of carcinoma of the prostate, the glands are affected by the time the diagnosis is made and that it is hopeless to operate.

Englehardt (30), of Heidleberg, believes the proportion in which the lymphatic glands are affected to be very high. He speaks about the difficulty of the diagnosis. In the four cases reported by him metastasis, however, had not taken place. He quotes Wyss (71) as having found metastasis in 7 cases out of 28 examined. Viannay (74) found the glands in the axillary and sub-clavicular spaces enlarged in one case, and in the inguinal region of the two cases recorded by him. N. Jacobson mentions

enlargement of the inguinal glands, in cases reported from the service of M. Jaboulay and M. Gangulophe. Carlin (21) reports enlargement of the size of a hen's egg subclavicular in a patient for a year before death; as in this case no other glands were affected, he thinks the left side the one most commonly affected. The very great proportion of writers on this subject mention the frequency and rapidity of glandular invasion.

AGE.

It is rather difficult from the literature of the subject to state the earliest time in which, according to history, cancer of the prostate may occur, from the fact that until the past few years cancer and sarcoma were classified under one heading. The youngest pretty positive case I have been able to find a record of was one reported by Carlin (21) occurring in a man aged thirty-eight years. The average age, judging from the histories which I have been able to collect in which it occurs, was over fifty years and in one series of some 19 cases was as high as sixty-eight years. In a large majority of cases recorded, a history exists of symptoms pointing toward trouble with the prostate apparently for several years before the cancer developed.

Cachexia.—This symptom need hardly be referred to here, except to mention it, as it has been dwelt upon somewhat by some of the observers. As a symptom it may be of diagnostic value to this extent, that its comparatively sudden occurrence in an old prostatic, without other reasons to account for it, would naturally lead to the suspicion that a malignant disease might be commencing, or it might tend to increase the value of any other evidence pointing in that direction.

PAIN.

Pain seems to be the almost unvarying accompaniment of cancer of the prostate, and may, before any other symptom, awaken in the observer the suspicion of malignant disease. The pain may be referred to the prostate, that is to the perineal region, to the rectum, to the back, over the region of the kidney, to various branches of the sciatic nerve, etc., to the region of the bladder, or to the glans penis. It may apparently arise directly from the prostate or indirectly from the pressure of glands that have become infected. It may be the first symptom to give rise in the mind of the observer to the suspicion of malignant disease, and as it may occur before metastasis into the neighboring lymphatic has taken place, its presence in an old prostatic without other explanation to account for it, should lead to early surgical intervention, unless the reasons against it are of the strongest.

HÆMORRHAGIA.

Bloody urine is quite a common occurrence in cancer of the prostate, and in this respect, although not occurring nearly so often, ranks next to pain. It occurs in, perhaps, 50 per cent. of the cases, and is a symptom, in connection with the others, of diagnostic importance. Careful use of the cystoscope in these cases will, of course, do much to determine in any given case to what it may be due.

PHYSICAL EXAMINATION.

The amount of residual urine is of no particular diagnostic value. Cases of cancer of the prostate have been reported in which hardly any residual urine was present. A tablespoonful only in one case reported by E. Lameau (75).

This is not to be wondered at when we consider that cancer of the prostate may occur without the size of the prostate having increased enough to cause much obstruction to the urinary outflow.

While this is true it must also be noticed that in almost all these cases a history is given of having at some time had gonorrhœa, or perhaps injury, as in the case reported by Dr. E. H. Madison (53).

The size and feel of the prostate, as found by a rectal touch or urethral examination, is probably not in itself, except as a means of comparison, of any great diagnostic value. These prostates may feel hard, nodular, or even soft, as in a case reported by Englehardt (30). A sensation, through the rectal touch, of a bunch in the prostate, or the feel of a cyst, the contents of which cannot be removed at all by massage of the gland, is considered by Guipin (34), as a diagnostic of cancer. An examination made at one time as to the size and consistency, compared with an examination made at another time, may be of value. The sudden increase, as determined by a rectal or urethral examination, in size of a prostate in an old prostatic whose prostate previously has remained for a long time of about the same proportion, is often indicative of malignant disease. Cancer of the prostate is more apt to have its inception in the lateral lobes of one of them, than in the so-called third lobe.

PROGNOSIS.

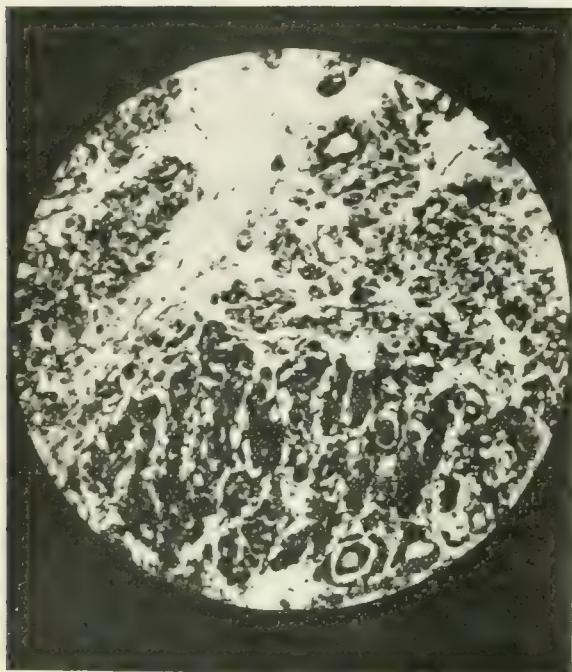
Prognosis in these cases is, of course, of the greatest gravity. Pasteau (54) believes, that, from a rapid and extensive metastasis which takes place, they are almost invariably fatal. The writer cannot but concur with him, but at the same time believes that, if the diagnosis is made early enough the cancer can be eradicated by surgical interference. Almost all the cases reported as having been operated on have done badly, as far as cure is concerned. E. Adenot (4) reports a case in which he removed the cancerous prostate, the patient being still alive a month

or six weeks after the operation, with great improvement in the local condition, although he had become greatly emaciated. Billroth (13) operated, in 1860, on a patient who lived one year and two months before death took place from a recurrence of cancer. Professor Salirchev (65), of Tomsk, removed a cancerous prostate; the man died four months afterward, of septic myelitis and meningitis, but autopsy showed no recurrence of the cancer at the seat of the old operation.

In this connection the history of the following cases will be of interest:

Mr. X., aged fifty-nine years, consulted the writer in the spring of 1902. He gave a history of having had gonorrhœa forty years before. Had noticed no urethral disturbance since, except some slight uneasiness or burning on urination during the last few months of 1901. At Christmas of 1901, after indulging freely in champagne, he had retention of urine, relieved by catheterization; the function soon returned, but from about that time he suffered from pain in the neighborhood of the prostate and pain of a burning character in the rectum. Consulting me, as stated above, early in the spring of 1902, I found a well nourished man, physical examination showed very little residual urine, never I think over two ounces, the examination of which gave negative results; apparently no third lobe enlargement; very slight enlargement of the right lobe of the prostate could be made out through urethral examination; rectal examination negative. I treated him from the time he came to me until early in June of the same year, by means of tonics, sedative medicines, and irrigations of various substances, without any apparent effect one way or the other in the patient's condition. He complained of the pain pretty constantly and was very much annoyed and depressed by it, until finally, operative procedures for the relief of the pain became imperative. I must say that my diagnosis at the time was that probably some encapsulated abscess or stone in the prostate was present. Early in June of 1902, I removed the prostate through an opening into the urethra, breaking into the walls of the urethra from the inside with a blunt instrument and digging out the side lobes with my finger according to the method of Alexander, which has been modified and performed so many times, and so successfully by the late John P. Bryson, of St. Louis, and by the method of prostatectomy which the writer, up to the present time, ordinarily believes to be the one of choice. Unfortunately, I wounded the rectum; this, together with the fact that while somewhat delirious during the night following the operation, he tore out the tube, was responsible for a small rectal urethral fistula. The fistula was not a large one, however; at one time for several weeks there was no leakage from it, and ordinarily only a few drops after urinating; it has not interfered with his carrying on his usual occupations and the writer is in hopes that in time it will entirely disappear. The patient complains that his sexual power has been diminished by the operation and he has had two attacks of epididymitis, one immediately following the operation, and the other during the past winter;

but the interesting fact should be noted here that he has never had any of his old pain since the operation. He is in a good state of health, with the exceptions mentioned above, and has so far—one year having elapsed—exhibited no evidence of a return of the trouble for which he originally consulted me. The pathological report of the specimen which I present below shows him to have suffered from a cancer of the right lobe of his prostate. I herewith present a microphotograph of a section made through the right, the cancerous, lobe, and also of a section made through the left lobe, which shows that one to consist of the ordinary pseudoadenoma.



Section made through growth in the right (cancerous) lobe.

the blood vessels. Amyloid bodies of small size are frequent, but their relation to the acini cannot be distinguished, on account of the great alteration in the structure; many of the epithelial cells are actively dividing and in some places malignant growth is clearly present.

The nodule of compact tissue is made up of islands of proliferating epithelial cells, which are separated by strands of semimucoid substance somewhat resembling colloid in its staining reactions. This growth is an adenocarcinoma, the cells of which still secrete, though in an abnormal manner. Apparently it has been of rather recent formation



Section made through left lobe, showing it to consist of ordinary pseudoadenoma.

THE PATHOLOGICAL REPORT,
made by Dr. Harlow Brooks, is as follows:

August 7, 1902. The two pieces from the left lobe show practically the same structure throughout. Corpora amylacea are entirely wanting in all the sections from these two fragments, and the acini are, for the greater part, in normal condition, though a few of them are distended, mostly with a normal secretion, and a few contain pus; others show a proliferation of the epithelium. There is moderate connective tissue hyperplasia, particularly about the distended acini, and in some places areas of small round cell infiltration are present. One such area was found in the larger piece of tissue in which local necrosis was present, apparently due to the intensity of the infiltration. Muscular atrophy is almost entirely wanting in these sections.

Gross examination of the enlarged right lobe shows the presence in it of a nodule of tissue of more compact structure than the surrounding tissue, and measuring about 7 cm. in diameter. Microscopic examination of this lobe of the gland shows the tissue to be greatly altered, the acini are obliterated and compressed by an abundant oedematous exudate, with cell infiltration and injection of

and has set up the surrounding irritation. It appears to be of rather low grade of malignancy and it is possible that you have gotten rid of all of the infected issue, in which case, I do not think that it is very likely that metastases have already been set up, so there may be no recurrence; if, however, portions of the new growth remain, it is sure to extend and probably quickly.

TREATMENT.

The subject of treatment can be considered under three different divisions:

1. Preventive.
2. Palliative.
3. Curative.

Preventive.—The ultimate analysis of the question of preventive treatment seems to lead to the conclusion that if gonorrhoeal infection could be prevented in the first place, the occurrence of cancer of the prostate would become much less frequent; for it is now well established that chronic posterior urethritis is a very frequent complication of acute urethritis. More and more evidence, (19), (36),

(38), is being brought out to demonstrate that chronic posterior urethritis and chronic prostatitis go hand in hand, that the latter plays a causative part in the formation of the so-called prostatic hypertrophy, and that this in turn, reasoning from analogy, plays a part in the frequency of the formation of cancer. It would seem evident, also, that a more prolonged and careful treatment of chronic posterior urethritis and prostatitis than has generally been the custom, would tend to prevent the so-called hypertrophy and the cancer secondary thereto.

Palliative.—It is evident, from a review of the literature on the subject, that in the past a vast majority of cases of cancer in the prostate have been diagnosed after metastasis had already taken place and the system had become infected. Necessarily, then, operations attempted with the idea of cure have been failures. Something may be said, however, in favor of operations undertaken with the idea of prolonging life, or more particularly in the late stages of the disease, for the relief of symptoms, particularly pain. Taillefer (69), in one case considered the making of a permanent suprapubic opening responsible for the rapid involvement of the corpora cavernosa, while, on the other hand, Delore (27), in two cases, by the same operation thinks he gave relief. Desnos (24) by resecting part of prostate in two cases, gave relief from pain, apparently caused by pressure. The writer has only had as yet the opportunity to operate on the case reported above; but from a somewhat limited experience in palliative operations for tuberculosis and cancer in other parts of the genitourinary tract, he is of the opinion that palliative operations are justifiable in prostatic carcinoma, but that they should be well thought out beforehand and not attempted if of a character to make the after progress of the disease more distressing to the patient.

Curative.—So far, the only curative procedure at our command consists of removal of the cancerous prostate before metastasis has taken place; that it is possible to recognize it early enough to do that seems evident. If this review on the subject adds in any way to the surgeon's ability to make an early diagnosis, one of the main objects in writing it will have been achieved.

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47 WEST THIRTY-EIGHTH STREET.

THE DIFFERENTIAL DIAGNOSIS BETWEEN FRIEDREICH'S DISEASE AND INSULAR SCLEROSIS.*

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The importance of diagnosis is, as it were, the basis of scientific therapeutics. That so many maladies present not a few similar signs and symptoms in the incipency of the diseases is frequently most confusing; and from lack of careful study of all (among the many) a case may be passed by and timely treatment justly failing, all measures default us in the efforts at cure during later activity of the pathological process—the disease itself. Especially is this so, of course, in the differential diagnosis between function and organic diseases.

I have no hope that early diagnosis of either of the diseases under consideration in this paper would amount to any optimism in the treatment of them; but from a desire of "the moth for the star," perhaps, I am led to believe that, even in such subtle organic affections as Friedreich's disease and insular sclerosis, accurate diagnosis will lead away from pessimism in nervous diseases and toward at least knowledge of what is the condition of the man that consults you.

(A) Friedreich's disease, or family ataxia, was first described in 1861 as a disease in which inco-

* Read before the meeting of the Medical Society of the State of Pennsylvania, at York, Pa., September 22, 23 and 24, 1903.

ordination in all four extremities, a jerky or reeling gait, loss of knee jerks, nystagmus, disturbance of articulation (stumbling or blurred speech), and a progressive tendency to helplessness are cardinal features. Scoliosis and talipes frequently are found. It may affect several generations, but ordinarily is confined to a single family; and usually appears before adolescence.

But this is a non-system disease, consisting of gliosis principally involving the posterior columns—hence the symptoms of irregular ataxia. From the hundred or more cases carefully recorded up to a few years ago, this affection has proved, as was to be expected, to have many exceptions to the rule of symptoms; so that now there are two more or less distinct forms recognized by neurologists, the differential points being given in the following table:

- | | |
|---|---|
| (I) <i>Friedreich's Form.</i> | (II) <i>Marie's Form.</i> |
| 1. Occurs before puberty. | 1. Occurs after puberty. |
| 2. Choreiform movements seen, affecting head, arm, and trunk. | 2. Choreiform movements are <i>very</i> pronounced. |
| 3. Optic atrophy exceptional. | 3. Optic atrophy is common. |
| 4. Tendon reflexes diminished or abolished. | 4. Increased reflexes and clonus frequent. |
| 5. Club foot and scoliosis common. | 5. Club foot and scoliosis are exceptional. |

(B) Insular sclerosis, or multiple cerebrospinal sclerosis, is a disease caused by sclerotic plaques scattered throughout the central nervous system; and, as a rule, has certain diagnostic features, viz., it occurs in both sexes equally between the ages of twenty and thirty years, but, mark you! *may be* congenital or hereditary and several cases in a family. The gait may be (*a*) spastic (*b*) cerebello-spastic, and (*c*) cerebellar (and this latter is pertinent to our subject); for, in the cerebellar cases there is rigidity with diminished or normal reflexes, but nystagmus, staccato speech, and intention tremor are also always present. Even without these cardinal features, bulbar symptoms, apoplectic attacks, and the probability that the disease may completely recede, would seem to make diagnosis clear in the majority of cases.

Yet here again exception comes to all rules in these diseases very pronouncedly, as reports of previous and subsequent histories of two cases recently coming under our observation at the Philadelphia and at the Medico-Chirurgical hospitals (but which I shall not burden you with) show.

To analyze, then. What are the main signs and symptoms which, when taken together, will make the sum of probabilities in favor of the unusual cases of Friedreich's disease or insular sclerosis being differentiated from each other?

First, it is the later described Marie type of Friedreich's disease that may be confused with insular sclerosis.

In the anamnesis it is particularly of importance to determine if there is an alcoholic or degenerative tendency in the progenitors. This is not so likely to be the case in insular sclerosis.

As to progression of Friedreich's disease: usually the jerky or reeling gait for the first three or four years becomes more prominent from month to month; while in three or four years more the patient is likely to become chair ridden, or indeed helpless. It is exceptional for long remissions to occur and sudden exacerbations are usual.

There is, of course, no very likely confusion between this disease and tabes, where the lack of cerebellar quality of gait, the crises and Argyll Robertson pupil distinguish; or Huntingdon's chorea, where there is no scoliosis and the mental failure and *forced* attitudes make the case clear.

In insular sclerosis, again, remissions are common; there is distinct intention tremor of the tongue and hands; the speech disturbance of a scanning type, due to involvement of the bulb. Then there is absence of static irritability; while predominance of spastic features and the irregular gait which, though it may be very confusing, is almost never distinctly cerebellar or titulating, occurs.

In Friedreich's disease the speech is *syllabic* or ataxic, rather than *scanning* or bulbar; and movements of the extremities are larger in excursion, rather than those of the intention tremor of insular sclerosis. The history of others in the family supposedly affected is also a great help in diagnosis of Friedreich's disease.

I am not quite sure that if the cases could all be counted, Friedreich's disease would be found more common than insular sclerosis. Ulthoff, some twenty-seven years ago, could find but one hundred cases of insular sclerosis recorded in six Berlin hospitals. Many have been collected since. Collins¹ reports nine cases of Friedreich's disease in one paper. The disease is an evolutionary defect or teratologic manifestation. Insular sclerosis has more to do with failure of trophic influence.

We trust the above outlined differential points may serve as guide posts in diagnosis; and that these diseases, which Church says "it may be most difficult if not impossible" to distinguish, may grow less confusing to the broad student of nervous disease, as a consequence of having the special points in diagnosis brought to his notice.

The Massachusetts General Hospital opened its new outpatient department on October 16th, the fifty-seventh anniversary of the first administration of ether for anæsthetic purposes. The new building and its equipment cost \$400,000.

¹ *American Medicine*, May 30, 1903.

RADIUM IN MEDICINE.*

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Radium, the new, rare, and wonderful substance, is obtained from uranium. In 1789, uranium was discovered and precipitated from pitchblende, by a German chemist named Klaproth. In 1840, Peligot isolated metallic uranium from the chloride. In 1896, Becquerel, of France, discovered remarkable radiation from uranium. He noticed that all preparations of uranium emitted radiations continuously, and found that they were similar to the x ray—they acted chemically on the photographic plate. Following up the original discovery of Becquerel radiations from uranium comes the discovery, in 1898, of polonium, by Professor Pierre Curie and Madam Curie, who, investigating Becquerel's radiations, discovered from some samples of pitchblende that they were much more powerful in their radiations than any uranium they had found, having four times the radioactivity of uranium (taking uranium as the standard of radioactivity). Naturally they concluded that Becquerel radiations were due to some unknown substance in the pitchblende. They began a series of experiments which ended in finding polonium, a radioactive substance, and later in 1899 by the discovery of radium. The pitchblende containing the largest percentage of radioactive material which has thus far been discovered, is the Bohemian pitchblende. It is also found in Saxony, in Caldwell, England, and in Colorado, and Texas in the United States. Pitchblende is not a common ore and uranium exists in it to the extent of from five to twenty per cent. Radium is almost as rare in uranium as gold is in sea water. It takes 2,000 pounds of uranium to furnish one pound of radium. From the above data one can realize that radium is a very expensive substance. Chemically pure radium is now manufactured by the *Société centrale* of Paris at \$6,000 a gramme, or \$2,700,000 a pound.

PHYSICAL PROPERTIES.¹

When I speak of the physical properties or other properties of radium, I mean the action obtained from specimens with radioactivity of 10,000 to 300,000, the radioactivity of uranium being the standard. Professor Curie states that the

radioactivity of radium is a million times greater than that of uranium, and emits exactly the same quantity of Becquerel rays in liquid air (300° below zero) as it does in the ordinary temperature. The luminosity of radium chloride is greater in liquid air than at the normal temperature. Lord Kelvin says that the discovery of Becquerel radiation from radium and other substances has placed against the principle of conservation of energy the first question mark that has been placed against it since the principle was first announced. Professor Curie and Professor Laborde, from their experiments, show that radium maintains its own temperature at 1.5° C. above its surroundings. This is equal to stating that pure radium salt evolves enough heat to more than melt its own weight of ice every hour. This evolution of heat is going on constantly without any apparent source and for an indefinite period, leaving the radium at the end of months as potent as it was in the beginning. This same statement applies to the luminous and other rays which it emits. An examination of radium after long periods of activity shows no change. The weight is practically the same. There is no molecular, chemical, microscopical, or spectroscopical change noticeable. This statement has been verified by Becquerel, Lippman, Curie, and Laborde, of France; Professor Soddy, of England; Professor William Rutherford, of McGill University, Montreal, and William J. Hammer, of New York.

The source of this heat energy is a mystery to all scientists. Professor Curie speculates on two hypotheses: First, that the atoms of radium as they are evolved are transformed into another simple body; this transformation produces heat. The second hypothesis consists of the supposition that radium is capable of capturing and utilizing some radiations of an unknown nature, which cross space without our knowledge. Rays from radium act like the x ray. They will penetrate opaque substances and decompose the silver salts on a photographic plate; they take a much longer time, however, to take a photograph similar to an x ray picture. Radium rays will reduce silver salts, iron peroxide, and potassium chromate in the presence of organic substances. They color rock salts just as the cathode rays do. These rays can also change white into red phosphorus in twenty-four hours. Becquerel also states that radium rays have the faculty of making the air act as a good conductor of electricity. Dr. Rutherford, of Montreal, says that radium produces an emanation that seems to act like a gas, but that the gas cannot be collected and tested physically and chemically. He asserts that radium

* Read at the semi-annual meeting of the Medical Society of the State of New York, held at the New York Academy of Medicine, October 13, 1903.

¹ The description of the physical properties of radium is culled from the book on Radium and Radioactive Substances, by William J. Hammer, of New York. This book contains the lecture he delivered at a meeting of the American Institute of Electrical Engineers, and the American Electrical-Chemical Society, New York, April 17, 1903.

rays are of three kinds: First, those that are identical with the cathode rays; second, those which are very penetrative; and third, those which are easily absorbed.

Sir William Crookes, the inventor of the Crookes's tube, writing to the *London Times*, says: "Although the fact of the emanation of heat by radium is remarkable, this heat is only a small portion of the energy radium is constantly sending off into space." It is at the same time hurling off material particles which reveal their impact on a fluorescent screen, by luminous scintillations.

PHYSIOLOGICAL PROPERTIES OF RADIUM.

Several observers, including the Curiés, Walk-off, Giesel, Soddy, and Hammer, have found that radium rays have a powerful physiological effect. If a small glass tube containing radium is put in a vest pocket and kept there for half an hour, it will produce a dermatitis; if the specimen is kept in the pocket for several hours, it will produce a severe burn, but the physiological effects will not be apparent for ten days or two weeks. If these burns, which are similar to the x ray burns, are severe enough, the ulceration may take from several weeks to several months to heal. Professor Curié, in recent experiments, introduced a few milligrammes of radium beneath the skin of a mouse near the vertebral column. The result was the death of the mouse in three hours. Tubes of radium placed in contact in the back of the neck of a guinea pig produced fatal results in a few hours. Becquerel shows that radium possesses the same power as the electric spark, or the prolonged action of the ultraviolet waves. He says that when seeds are exposed to radium rays for several hours they lose their germinating power. Another interesting phenomenon is mentioned by Giesel, who pointed out that when radium salts were brought near the temples or near the closed eyes, a sensation of light was produced. Who can tell but that these latter manifestations may be found useful in stimulating the optic nerve into activity, and perhaps holding out encouragement to those who are partially or wholly blind? Dr. Lunden, of Berlin, affirms that by the use of radium rays he has obtained good results in the case of two boys who were almost totally blind. The cause or the kind of blindness is not mentioned. While these boys were not cured, he found after several treatments that they were able to see shadows of objects which they could not see before.

William J. Hammer, with Dr. Jenkins, exposed to the radium rays the eyes of one Lillie S.,

aged eleven years—blind for eight years. There was but one exposure for a period of one minute.

Before the exposure she was not able to distinguish the brightest kind of light (as the burning of magnesium) and after this one treatment she could recognize a very powerful light. Enough treatments and sufficient time have not elapsed to say whether she will receive permanent benefit.²

USES OF RADIUM IN MEDICINE.

There is no doubt that the salts of radium by their radiations have a positive effect on diseased tissues, and, even at this early stage of experimentation, it certainly looks as though their use were indicated in lupus, rodent ulcer, superficial cancer, and some cases of deep cancer; in certain kinds of skin diseases, atrophy of the optic nerve, and partial blindness from other causes. In deep seated cancers, the x rays have, as a rule, not given satisfactory results. It would almost seem that, in the radium rays, which are more powerful and their emanations of radioactivity more penetrating, we have a new agent which is more likely to give better results in some of the cases which have heretofore been considered incurable. As yet, comparatively few physicians have reported on the efficiency of radium rays in deep seated cancer. Nevertheless, there is sufficient encouragement in the cases which I now collect and report, to make us feel that perhaps we are on the right road to find the specific cure for cancer and tuberculosis.

CASE I.—Dr. John McIntire, of Glasgow, reports a case of small lupus on the dorsal surface of the right hand, which was exposed to the radium rays daily for from twenty minutes to half an hour; the time of exposure depending upon the skin reaction. The result was that within three weeks the lesion was entirely healed.

CASE II.—Female, aged twenty-eight years, with lupus of the nostril and nose about one inch in diameter. She had the same daily treatment as in the previous case, with the result that she was cured in four weeks.

CASE III.—Rodent ulcer, under treatment only two weeks at the time of the report, and even in this short time the discharge had dried up and the ulcer was in a fair way to heal.

Dr. Oudin, of Paris, says that he has cured some cases of lupus with radium rays, but the report does not give the details.

Professor Gassenbaurer reports to the Vienna Medical Society no less than twenty cases of cancer treated by radium during the six months ending July 1st. All these cases showed more or less

² Mr. Hammer informs me, after an interval of a month, that she still retains the improvement in her eyesight.

improvement, and the two whose history I now give, were cured.

CASE I.—Male, aged thirty-seven years; operated on eight years ago for melanosaarcoma, of the left arm. He recently returned to the clinic because of a multiple recurrence of the same. The numerous nodules were exposed to the radium rays for twenty-five minutes each day or two, depending upon the skin reaction, and the cancerous nodule disappeared in one month.

CASE II.—Male, aged sixty-one years; operated on for cancer of the mouth in 1888, 1891, and 1897, respectively. He presented himself at the clinic again in April, 1903, with an inoperable cancer of the lip and palate. Radium was used as in the above case, and the cancerous growth disappeared with complete healing in five weeks.

Dr. Willy Meyer, and William J. Hammer, of New York, report a case of recurrent cancer in which the x rays, and also Coley's fluid, had been used for about a year without avail. Last July, Dr. Meyer began radium treatment. The radium was of 300,000 activity, and was applied every day for one minute. The large recurrent growth in the axillary line got smaller and less painful, and the smaller disseminated nodules broke more quickly. However, the case was so far advanced that, while improvement took place, a cure could not be accomplished.

Dr. Andrew H. Smith, of New York, while abroad this summer, saw a case of rodent ulcer which had been treated by the x rays without benefit. The ulcer was exposed to radium rays for five treatments, which resulted in perfect healing of the parts.

Bacteriological Experiments with Radium.—The observations made with radium in bacteriology have been somewhat limited. However, Caspari and Ashkassi, of Italy, have exposed culture tubes of the *Micrococcus prodigiosus* to the rays of radium, and it has been found to have a fatal effect on this organism in three hours.

Radium Rays in Tuberculosis of the Lungs.—From the well known germicidal powers of radium, it is reasonable to suppose that it will prove a useful agent in tuberculosis of the lungs. Soddy, in the *British Medical Journal*, suggests that radium be dissolved in water. He says "that instantly all its emanations are evolved in gas, and mixed with the air above the solution. Now let these emanations be removed by a current of air passing through the solution. The air with the emanations can now be stored in a gas holder in another room. Observations will show that one half of the emanations will disappear every four days, and in three weeks no emanations of radium will be left; but the solution from which it was obtained, has grown a fresh crop of emanations just as fast as the old ones disappear. That is, it takes about three weeks for the solution of radium

to be as potent as it was in the beginning when the salts of radium were first dropped into it."

Inhalations of these emanations leave a thin film of radioactive substance on the lungs. This causes the phenomenon of induced radioactivity, which remains in the air cells of lungs, exercising a germicidal power over diseased tissue long after the emanations themselves have been exhaled. This "induced radioactivity" usually disappears in about three hours. For an inhaler, an ordinary gas wash bottle provided with two taps could be used, so that there is no leakage of these precious and slowly formed emanations. From five to ten milligrammes of dry radium bromide should be introduced into the wash bottle and a few drops of water drawn in to dissolve it, the taps being immediately closed. For the first treatment, the first few bubbles of gas should be inhaled with a deep breath, gradually increasing the dose. Repeat this treatment every day. In this manner the emanations of radium and their radioactivity, which is inimical to germ life, would do their work at the seat of the disease.

Perhaps the foregoing reports are somewhat rosy colored in their expectations; on the other hand, they may be in some respects not sufficiently extravagant—time will tell. However, to the inexperienced it is well not to draw unwarrantable conclusions concerning this wonderful substance, and to imagine that in radium we have a specific for all incurable diseases. No doubt, in time, scientific experimentation will show its value as a remedy, and perhaps reveal its mysteries, and the natural laws through which it works.

CONCLUSIONS.

1. The discovery of radium may make it necessary to change our theories of the old hypothesis about matter and the conservation of energy.
2. Radium may possibly open up the way for a cheaper and more wholesome lighting of houses by phosphorescence.
3. Radium is a practical agent to differentiate genuine gems from artificial.
4. Radium is a useful agent to kill bacteria.
5. Radium may be considered a valuable agent for the treatment of lupus, cancer, tuberculosis; and a possible agent to improve the eyesight and overcome partial blindness. No doubt, later discoveries will show it to be of service in other diseased conditions.

In closing, I wish to express my appreciation of the personal help I have received in the preparation of this paper from the well recognized authority on radium, Mr. William J. Hammer, of New York.

240 WEST ONE HUNDRED AND SECOND STREET.

TUBAL PREGNANCY: REPORT OF CASES.*

By MARY D. RUSHMORE, M. D.,

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GYNÆCOLOGIST TO THE INFIRMARY FOR WOMEN AND CHILDREN.

This paper will consist of a report of a series of ten cases, all operated on in the New York Infirmary since May, 1900; all subjected to laparotomy; and all presenting the same gross lesion of a hæmorrhage from or within the Fallopian tube. The clinical histories and the conditions found upon examination presented much similarity, and were sufficiently classical that in every case a diagnosis of probable tubal pregnancy was made before operation. In no case was a fœtus found; only in one case was there a fœtal sac; in eight cases the microscopical examination showed decidual formation; while in two cases no evidences of pregnancy were found. The patients all made good recoveries and were cured of their symptoms.

The comparative frequency of this condition, the great dangers that attend it, and especially in case of rupture, the necessity for prompt diagnosis and timely surgical intervention, make the subject one of interest to all practitioners.

The first group of four cases all presented a free hæmorrhage into the peritoneal sac, three times from rupture of the tube, and once from the dilated fimbriated extremity. In three cases the operation was done soon after the rupture, when the patients were in a condition of extreme anæmia and partial collapse. In one case several weeks had elapsed.

Group I.

CASE I.—Mrs. W., aged thirty-five years, three children, two miscarriages. Last child born eleven months previously, and subinvolution followed birth, but patient had been well for some months. Menstruation five days or longer overdue. When hanging out clothes, she was suddenly seized with severe cramps in the lower abdomen. The next morning she walked to the dispensary in great pain. Temperature 96° F.; pulse 80, poor quality; skin clammy; extreme tenderness in right inguinal region; pain on moving cervix; no mass palpable by vagina. She entered the infirmary and under rest and stimulation became more comfortable. She was under observation until the next morning, and during this time had several attacks of acute pain, when she grew very pale and the pulse became feeble. The abdominal tenderness and resistance increased. A diagnosis of internal hæmorrhage from probable tubal rupture was made, and operation was performed. A large amount of fresh fluid and clotted blood was evacuated and the right tube, distended by clot and ruptured, was removed. The left tube, occluded and containing an ounce of fluid blood,

was also removed. Ovaries and uterus normal. Microscopical report, tubal pregnancy.

It seems probable that the ovum in this case was lost in the clot, rapidly broken up, and removed.

CASE II.—Mrs. G., aged thirty-five years, sterile. No disease of genitals, so far as known. Menstruation two weeks overdue when she was seized with intermittent cramp-like pains in lower abdomen. She fainted several times and after extending over some days the pains suddenly grew very intense and her condition became alarming. She entered the infirmary in a condition of extreme anæmia, nearly pulseless, abdomen much distended and very tender.

Immediate operation was undertaken, salt solution being infused under the breast. A large amount of free fluid and clotted blood was evacuated and a sac the size of an egg was removed from near the left tube, it having escaped through a large rupture. The tube was collapsed and, after freeing the numerous old adhesions, was removed. The right tube was also adherent and converted into a cyst. Several small fibroids were embedded in the wall of the uterus. Ovaries normal. Microscopical report: Tubal pregnancy.

CASE III.—Mrs. W., aged twenty-eight years. Married eight months. Sterile. Well until menstrual period one month before, since which time the flow has continued steadily, at times profusely. Pain in left side, not severe or constant. Sent in for curetting, with a diagnosis of incomplete abortion. Examination showed a uterus slightly enlarged, a bloody discharge containing bits of membrane, and high up and to the left of the fundus, a moderately tender, elastic mass, the size of a small orange. Four hours after the examination she was suddenly seized with great pain, fainted, became very pale, with cold skin, and rapid pulse, the abdomen being extremely tender. A diagnosis of ruptured tube was made, and operation at once performed. A large amount of fresh blood was found and removed from the abdominal cavity. The left tube was distended by clot; the fimbriated extremity much dilated, filled with clot, and adherent to the ovary and broad ligament by soft spongy tissue. There was no rupture in the tube proper, but it seemed that the sac had formed in the extreme end of the tube and that this had ruptured. Right tube and ovary normal. Microscopical report: Tubal pregnancy.

CASE IV.—Mrs. R., aged thirty-two years. Two children, youngest three years and a half old. Entered the hospital because of fever, pain, and weakness. Last regular menstruation about three months ago. For the last five weeks, bloody discharge, pain, and fever, growing worse. She was observed for six days and her condition remained as follows: Temperature, 100° to 101° F.; pulse 96 to 112; uterus, normal position, slightly enlarged, posteriorly a soft boggy mass, moderately tender, outlines not well defined. A diagnosis of probable infected hæmatoma from tubal pregnancy was made. At operation the right side of the pelvis was found to be filled with old, dark blood, encapsulated by omental and intestinal adhesions. The right tube was distended by clot, showed evidence of rupture, and was adherent by recent inflammatory adhesions.

* Read before the Woman's Medical Association of New York, January 17, 1903.

The ovary was enlarged and cystic, and both ovaries were removed. The left tube and ovary showed recent inflammatory change, but after freeing them from adhesions they were allowed to remain. Microscopical diagnosis: Tubal pregnancy. Some months later the patient was suffering from a recurrence of inflammation in the tube and ovary which had been allowed to remain, but under treatment this improved.

This case is interesting in contrast with the previous cases, where the rupture soon endangered the life of the patients by anæmia and collapse, as having taken place at some time apparently forgotten, since no history of sudden pain or faintness could be obtained.

Of the next group of six cases, all presented an unruptured tube distended by blood. The patients all sought relief because of pain and flowing, and in all, an elastic mass was felt beside the uterus, leading to the diagnosis of tubal pregnancy.

Group II.

CASE I.—Mrs. C., aged forty-one years, two children, four miscarriages, the last four years ago, all induced. Menstruation two weeks overdue when she "opened the womb." This was followed by flowing, which has continued for a month with pain, at times sharp and colicky. Tender elastic mass behind the uterus. Pulse and temperature normal. At operation the mass was found to consist of the adherent tube, which ruptured during delivery, and blood clot escaped. Right tube and ovary normal. Microscopical report: Tubal pregnancy.

CASE II.—Mrs. M., aged twenty-four years. Two abortions, the last four years ago. Thinks she had a miscarriage, as menstruation had not been regular for two or three months, and for five weeks she had severe flowing with pain. Elastic tumor to the right of uterus found to be the right tube distended by clot; ovary cystic. Left tube filled with clear fluid and ovary also cystic. Microscopical report: Tubal pregnancy.

CASE III.—Mrs. H., aged thirty years. One child, seven months ago. Menstruation two weeks overdue when she began to flow, and has continued for five weeks. Slight pain on left side. Cured without relief. Small elastic mass to left of uterus, brownish flow; temperature normal. Upon removal the mass was found to consist of the cystic ovary and the tube distended by blood clot. Right tube and ovary normal. Microscopical report: Tubal pregnancy.

CASE IV.—Mrs. A., aged thirty-one years. Sterile. For two months, constant slight flow and pain in the side. Elastic mass to the right of the uterus. The right tube was found distended by blood clot. Left tube and ovary normal. Microscopical report: Tubal pregnancy.

CASE V.—Mrs. L., aged twenty-seven years. Two children, youngest five years. Last regular menstruation ten weeks ago. Six weeks ago she was taken with colicky pain so severe that she fainted. Began to flow and pain and flowing have continued.

Sensitive elastic mass in left cul-de-sac, which increased rapidly during several days' observation. This, at operation, was found to consist of the tube closely adherent by recent adhesions and distended by blood clot, the tubal walls being everywhere much thinned. Careful microscopical examination showed no evidences of pregnancy.

CASE VI.—Mrs. H., twenty-one years of age. Sterile. Had skipped one menstrual period, and flowing began with colicky pain which has continued. Tender, elastic mass in right cul-de-sac. Was observed for three weeks, during which time the mass doubled in size, flowing continued, and, for last two weeks, there have been fever and increased tenderness pointing to pelvic inflammation. At operation the right tube was distended by a pint or more of brownish fluid blood and adherent by recent adhesions. Left tube and ovary normal. Microscopical examinations gave no evidence of pregnancy.

Although, in our last two cases the microscope does not confirm the diagnosis, I think we may conclude from the findings and from the uniform clinical histories that tubal pregnancy was the probable cause of the trouble, the thinning of the tube by rapid increase of its contents and the surrounding peritonitis having obliterated the decidual membrane; or we may believe, with some authors, that this is often absent. Certainly, all cases presenting a history of irregular flowing and colicky pain should be subjected to a careful bimanual examination and, in the presence of an elastic mass beside the uterus, should be given a guarded prognosis and told the possible danger of their condition; since some at least, as in Case III, supposed to be suffering from an abortion, will suddenly have a tubal rupture and the life be in peril. As to the wisdom of operative interference in this class of cases, there can be no question in these days of aseptic surgery. The woman is quickly relieved from her pain and disability and also removed from the grave possibility of internal hæmorrhage.

Since reading the above paper two additional cases presenting histories and conditions similar to those in group II have been successfully operated on, and the diagnosis confirmed by the microscope.

102 EAST TWENTY-SIXTH STREET.

Crystallized Wisdom: The Individualism of Medicine.—"Our large classes of disease are only rough generalizations, as each nation and race will have its typical protoplasm; thus all true discoveries and treatments must be individual, and the *science* of medicine can never conquer or render negligible the *art* of medicine. When our therapeutics become absolute and certain each patient must [still] be treated differently. All the general truths and theory can never discover all the truth of the individual case." George M. Gould, Medical Discoveries by the Non-Medical. *Journal of the American Medical Association*.

NEW YORK STATE MEDICAL ASSOCIATION.

*Twentieth Annual Meeting, Held at New York,
October 19th, 20th, 21st, and 22nd.*

Delightful weather welcomed the members of the New York State Medical Association to their twentieth annual meeting in Hosack Hall, at the New York Academy of Medicine.

THE PROCEEDINGS.

Monday Morning, October 19th:

Monday morning was taken up with the reception and registration of members and delegates from other State societies, and the meetings of the nominating committee, and of the council. Luncheon followed at 12.30, some sixty members having registered at that time, including two ladies. The delegates from other State societies present were: Connecticut Medical Society—R. W. Kimball, of Norwich. New Hampshire Medical Society—A. S. Wallace, of Nashua, and D. S. Adams, of Manchester. The Medical Society of the State of Pennsylvania—Theodore P. Appel, of Lancaster, William H. Dudley, of Easton, Richard H. Gibbons, of Scranton, Edgar M. Green, of Easton, and William B. Ulrich, of Chester. Medical Society of New Jersey—Wm. J. Chandler, of South Orange, E. B. Silvers, of Rahway, and D. A. Currie, of Englewood. Massachusetts Medical Society—A. T. Cabot, of Boston, and G. de N. Hough, of New Bedford. Maine Medical Association—G. W. Shedd, of North Conway, N. H.; and W. L. Cousins, of Portland.

Monday Afternoon:

The meeting of the council and fellows was called to order at 2 p. m., and the roll was called by the secretary. Those present consisted mainly of the delegates from each county organization, the majority of the members not arriving before Tuesday morning. One delegate is appointed to represent each ten members of the several county organizations. No papers were read during this session, which was devoted to business matters. After the roll call, the President, Dr. Frederick Holme Wiggin, made the Report on the Needs of the Association. He said, in part, that he was grateful for the confidence shown in him by the association in electing him President and in standing by him in his work. The year had been prosperous, there being now 35 county organizations, as against 21 last year, and 372 new members; 23 had died, and 15 had resigned, leaving a total of 1,757 active members. The initiation fee had been dropped, which might account partially for the large new membership, but he thought a greater reason was the interest taken by the association in the malpractice suits brought against its members, eight in number, all of which had been disposed of satisfactorily; this interest afforded protection to the members, and, in the future, shysters would be chary of bringing such suits, knowing that they would have to fight the association. The dropping of the initiation fee had cost the treasury \$1,860, and he recommended its reestablishment. He thanked James Taylor

Lewis, the association's counsel, for his valuable aid. The *Journal* of the association had been published at a net cost of \$700, but the policy of not admitting secret proprietary preparations to its columns would be adhered to. They must have new active members, and each member was urged to bring in at least one during the coming year. A committee must be appointed to codify the by-laws, some of which conflicted with one another and some with those of the American Medical Association. As to the *Directory*, when a member left the State temporarily, his name should meanwhile be placed upon the non-resident membership list. Nominations for officers should be allowed from the floor, as well as through the Committee on Nominations. Dues must be paid more regularly, and the president advised the publication of the names of delinquents in the June number of the *Journal*. "Refracting opticians" should be prosecuted, as they were now in Massachusetts. The American Medical Association should be incorporated by an act of Congress, and not in one of the States.

The report of the President was adopted unanimously. The report of the council was then read by the secretary, Dr. Guy Davenport Lombard, in which he spoke of the fourteen new county organizations, and gave detailed accounts of their respective increase or decrease in membership. A request had been sent to the association to contribute to the monument of the late Major Walter Reed.

The treasurer's report, read by Dr. Wisner Robinson Townsend, began by referring with feeling to the late treasurer, Dr. E. H. Squibb, whose reports were marvels of accuracy. There was a balance of \$725.55 to the credit of the association. The report was referred to the auditing committee.

Dr. E. Eliot Harris, in reading the report of the Committee on Legislation, referred to the work done by the association in endeavoring to get rid of the New York coroners; the bill was passed by the Senate, but mysteriously disappeared in the Assembly. At the present day, no man could fill the various duties imposed upon the coroner, no matter how willing or how competent he might be; the committee had recommended that he be replaced by a board of medical examiners, who should be competent pathologists. The committee had also taken up the dispensary evil, and had learned that, through the present system of inspection, 100,000 fewer people were now treated annually in the dispensaries than was the case in 1898. The resolution as to coroners was adopted.

The report of the Committee on Public Health, read by Dr. J. Scott Wood, spoke favorably on a resolution adopted by the Kansas City Academy of Medicine, to the effect that papers publishing the advertisements of abortionists should be denied the use of the mails. This resolution was also approved by the meeting.

The Illinois Board of Health had recommended that the eyes and ears of school children should be regularly examined, since disease in those organs was often unsuspected until too late; this recommendation was also adopted by the meeting.

The Committee on Publication reported on the *Journal* of the association, and on the *Directory*, through its chairman, Dr. Charles E. Denison.

Dr. Lombard read the report of Mr. James Taylor Lewis, counsel, on the legal work accomplished by the association, which is referred to in the President's report.

The committee appointed to audit the treasurer's report, here handed in its approval.

Dr. Joseph H. Bryant, chairman of the Committee on Incorporation of the American Medical Association, here rose to state that he found the balance of opinion favorable to incorporation in some particular State. Dr. Wiggin resigned the chair to Dr. Lombard, in order to speak feelingly regarding the necessity of incorporation by act of Congress, owing to the conflicting laws in the various States of the Union. He pointed out that a certain railroad, having its head offices in Dallas, Tex., had been incorporated by an act of Congress, and thought it would be more dignified in any case for a national body, like the American Medical Association, to be so incorporated by the national government. The motion was carried.

Dr. Alvin A. Hubbell then moved, on behalf of Dr. Wiggin, that a committee of five be appointed to codify the by-laws of the association, and that the eye and ear resolution before referred to be adopted. This was carried. Dr. Wiggin then resumed the chair.

Dr. Harry H. Seabrook moved a resolution that opticians be forbidden by law to advertise as specialists on the eye or to prescribe lenses, unless they are able to bring vision up to $\frac{20}{30}$ Snellen; this was incorporated in the President's report.

The Committee on Nomination, through Dr. Charles Quimby, reported the following as their nominees for officers for the forthcoming year: For President, Dr. William Harvey Thornton, of Buffalo; for vice-president, Dr. Charles S. Payne, of Sullivan county; for treasurer, Dr. F. H. Baldwin, of New York; for secretary, Dr. Guy Davenport Lombard, of New York; for chairmen of committees: Arrangements, Dr. Samuel A. Brown, of New York; legislation, Dr. E. E. Harris, of New York; library, Dr. J. J. Nutt; public health, Dr. Louis C. Ager, of Kings county; publication, Dr. C. E. Denison, of New York; nominations, Dr. J. O. Stranahan, of Oneida county. For delegates to the American Medical Association: Dr. J. W. Grosvenor, of Erie county, and Dr. D. Elliott Harris, of New York. Adopted.

The afternoon session then adjourned.

Monday Evening:

The members of the association were the guests of the New York county organization.

At the meeting of the County Branch a patient was presented showing the results five years after resection of the rectum and sigmoid flexure for carcinoma. Specimens were also shown of appendicitis and from a case of hysterectomy for fibroids with unusual symptoms, by Dr. FREDERICK HOLME WIGGIN. The presidential address on The Physiological and Therapeutical Action of Alcohol was then delivered by Dr. ALEXANDER LAMBERT, President of the New York County Branch.

A collation was served at the close of the meeting.

Tuesday Morning, October 20th:

The association was called to order by the President at 9.45 a. m., some 125 members being present. Dr. SAMUEL A. BROWN then delivered a short address of welcome, saying that he was glad to see such a large number of the members present and to notice their punctuality; he also thanked those who had volunteered to read papers. He promised that the dinner would be the largest that had ever been given by a similar body of practitioners.

The following papers were then read:

Sea Bathing in Some Forms of Skin Diseases.

—This paper was read by Dr. R. ABRAHAM, of New York. Dr. Abrahams commented on the fact that the literature of sea bathing was almost nil, yet his experience of two summers was that such treatment afforded excellent results in pityriasis versicolor (six cases), herpes squamosus (six cases), chronic eczema (five cases), and pruritus (two cases), all of which had proved obstinate to other treatment; a few weeks' bathing cured them. One case of chronic eczema, following on chronic gout and rheumatism and lasting for ten years, had been relieved by two daily baths for ten weeks; nothing but a slight pigmentation remained to show what these baths had accomplished. A case of pruritus in an old man, seventy years of age, who had been a great sufferer, was cured by daily dips during an entire summer. Tanks of seawater had not the same beneficial effect, and doubtless the long immersion, the sunshine, the rolling on the sand, and the pounding by the billows were important therapeutic elements.

The Treatment of Compound Fractures.—Dr. V. D. BOZOVSKY, of Dunkirk, N. Y., read this paper. He said that no two cases of compound fracture demanded the same treatment. Bozovsky's bad results were in comminuted fractures, particularly of the tibia and fibula, where he was liable to encounter delayed union and necrosis. He did not agree that the wound was always of first importance, as sometimes it gave no trouble. He had found dilute carbolic acid the best dressing in children, and mercury bichloride, 1 in 4,000, best in adults. For apposition, silver wire was preferable, then gut; periosteum was absolutely necessary for union in large fragments of bone, although not always in small. The results of the use of decalcified bone had been disappointing, although he thought the ox-bone rings of Senn would be always good, if they could be kept sterile indefinitely. Plaster, well applied, was superior to all the fancy, metal splints.

Stab Wounds of the Abdomen.—Dr. F. J. DOUGLAS, of Utica, N. Y., read a paper on this subject in which he made the points that aseptic exploration was always imperative and greatly superior to probing, while washing with salt solution was beneficial and, in case of anæmia, two quarts of the solution should be left in the abdominal cavity. Three cases were cited in support of this view.

The Relation of the Municipal Milk Supply to the Health of Children was the title of a paper read by Dr. GEORGE W. GOLER, of Rochester, N. Y. Dr. Goler's paper was designed to show the re-

sults of the conscientious inspection of milk in Rochester. There were now 1,500 less deaths* in that city, or over 60 per cent. less than formerly, since rigorous measures had been carried out. Still parents were not instructed concerning the bringing up of babies, their food, drink, exercise, etc.; we taught about everything in the schools but this most important matter. Milk was the easiest thing to get dirty and it could not be cleaned in any manner to make it fit for infants. Four years ago in Rochester, they used to get milk with 837,000 bacilli to the c. c., but inspection had reduced this percentage to less than 100,000 in the majority of samples. No pasteurizing or sterilizing was allowed, as these measures were but direct incentives to the milkmen to be careless. Some of the samples now showed less than 14,000 bacilli to the c. c.

Dr. DE LANCEY ROCHESTER, of Buffalo, congratulated Dr. Goler on his excellent paper and on the good results obtained by him, and spoke of the difficulty of inducing aldermen to understand the importance of the question, and of forcing farmers to stick to their agreements.

Dr. JOHN U. HAYNES, of Albany County, and Dr. MARCY, of Massachusetts, also discussed this paper.

Dr. C. S. PARKHILL, of Hornellsville, did not read his paper on The Surgical Treatment of Hæmorrhoids, as he was absent when it was called.

The Causes of Failure After Operation for Nephroptosis, was the title of an interesting paper by Dr. AUGUSTIN H. GOELET, of New York. Some of the causes, Dr. Goelet said, were: Faulty technics, lack of proper preparation for the operation, delay in operating, mismanagement before, during, and after the operation, ptosis of other organs, poor suturing by failure to immobilize the kidney, weak sutures, tying to soft structures, too early removal of sutures, neglect to remove the gauze drain in time, allowing the patient to assume the erect posture, or even to turn over upon the opposite side too soon, neglect to support the abdomen by a proper elastic bandage, allowing the patient to assume improperly fitting corsets, allowing too early exertion and the too early administration of improper food, thus taxing the digestion.

Dr. Goelet's paper was discussed by Dr. EVERARD D. FERGUSON, of Troy, Dr. MARTIN B. TINKER, of Baltimore, and Dr. GIBBONS, of Pennsylvania. The question of suturing the kidney having come up, Dr. Goelet gave a blackboard demonstration of his own method.

Dr. James P. Tuttle, of New York, whose paper was next on the schedule, being delayed, Dr. FERGUSON then welcomed the delegates from other States, whose names have already been given, to the platform, and introduced them to the meeting. Each delegate delivered a cordial message of greeting, and expressed the hope of speedy unification, not only of all the State societies, but of those of the world. Dr. Ferguson responded in a few words.

Dr. W. B. REID, of Rome, next volunteered a report of a case of Strangulated Hernia Complicating Pregnancy.

Results from Operative Treatment of Cancer

of the Rectum was the title of the next paper, read by Dr. JAMES P. TUTTLE, of New York. Dr. Tuttle summarized his experience in forty-three cases of rectal carcinoma and offered two patients for examination by the audience to corroborate his opinion that there had been no recurrence. The x ray, Finsen light, and serums had failed, and caustics were useless within the anus. Colostomy rarely gave a year of life. Removal of the growth was the only chance for prolonging life and easing pain. The great difficulty lay in avoiding infection, but no other method has ever proved curative. As to immediate mortality, this would decrease with our increase of skill; at present it was 16 per cent. Four patients were still living after seven years; one of the patients present was operated on eleven years ago. Dr. Tuttle had operated upon one rectal case where there was inoperable carcinoma of the liver, and the patient was living after three years. Causes of death were: Late diagnosis, infection, accidental hæmorrhage from cut sigmoid artery, and suppression of urine.

The morning session adjourned at 12.15. Luncheon was served at 1.

Tuesday Afternoon:

The first paper read was that by Dr. E. D. FERGUSON, of Troy, on **One of the Dangers of the Surgery of the Biliary Passages**. Dr. FERGUSON was opposed generally to the use of the knife in the biliary passages and thought great conservatism and expectant treatment preferable to occasional brilliant results, with a higher mortality, by radical surgical measures.

A paper on **Extradural and Mastoid Disease** was then read by Dr. SEYMOUR OPPENHEIMER, of New York, and was discussed by Dr. A. B. DUEL, of New York.

School Hygiene and the Great Need of Medical Supervision in Schools was the title of a scholarly paper read by Dr. H. ERNEST SCHMID, of White Plains, in which he referred to the lawlessness of school children, praised by the unthinking, which, however, was partly due to lack of supervision of their hygienic surroundings. "Pull" was exercised in the purchase of school sites; the rooms were too small; there was not sufficient exercise; and the eyesight and hearing were not examined. Desks were often badly built and closets unsanitary. Discussion followed, by Dr. SILVAS, of Rahway, N. J., and Dr. J. J. WALSH, of New York. The latter spoke sarcastically of the rubbish that passed current as physiology and hygiene in our school text books, and especially of the tissue of untruths therein circulated regarding alcohol.

Deep Inhalations of Oxygen was the title of an extra paper by Dr. CORDELIA A. GREEN, of New York, which was read by Dr. J. J. WALSH. These inhalations the author considered to be highly valuable in lobar pneumonia, anæmia, and neurasthenia. Outdoor nasal respiration should be insisted on for nervous and pulmonary subjects, for from two to four hours daily. Deep breathing would avert an attack of hysteria or stage fright.

Discussion followed by Dr. ROCHESTER, of Buffalo.

Dr. Thomas M. Rotch's paper was postponed to Thursday.

Bacteriology and Pathology of Dysentery in Children was the title of a paper by Dr. WILLIAM H. PARK, of New York, in which he said that dysentery was characterized by its sudden onset, the fæculent stools, the appearance of mucus and blood and subsequently a coffee-ground appearance, the stools numbering sometimes fifty *per diem* and attended by tenesmus. Mild cases lasted two weeks, severe cases, four weeks, and malignant cases, from two to three days only. Dr. Park had observed an epidemic in the northern part of the State some time ago. We had altogether this regular dysentery, an irregular form, and the simple summer diarrhœa. Shiga had discovered a bacillus in Japan, where the disease was very common, resembling, but not identical with, the the colon bacillus, with which he was able to produce an atypical dysentery in animals; later on, a criminal in the Philippines, inoculated with the bacillus, developed a typical dysentery. Flexner and Strong had found the same bacillus in the Philippines and it was thought that the same had been discovered in the United States. However, it was now known that the germs were not quite the same and had not the same reactions. The pathological anatomy and postmortem appearances showed an inflamed mucous membrane, with sometimes a pseudo-membrane, a diphtheritic appearance, with sometimes involvement of the cæcum and small intestine; the spleen, kidneys, and liver were never involved, showing that the poison was not absorbed constitutionally. Hæmorrhages were often present, the submucosa was infiltrated and the muscularis rarely similarly affected. Peyer's patches were swollen. The effects of the serum treatment were doubtful except in the severe cases, where it seemed to benefit. Next summer, horses would be immunized with all forms of diarrhœa and dysentery bacilli, when more marked and positive results were hoped for from serum therapy.

Dr. SAMUEL G. TRACY, of New York, then read an extra paper on **Radium in Medicine**.

Colon Bacillus Infection of the Female Genito-urinary Tract.—This paper was read by Dr. ALBERT H. ELY, of Southampton, and was discussed in connection with the paper of Dr. PARK, by Dr. W. P. NORTHROP, Dr. L. EMMET HOLT, Dr. J. E. WINTERS, Dr. C. J. CURLEY, Dr. R. G. FREEMAN, of New York, and Dr. F. W. SHIPMAN, of Mt. Vernon, N. Y.

Dr. MARTIN B. TINKER, of Clifton Springs, brought the afternoon session to a close with his paper, entitled **Some Less Unusual Causes of Post Operative Elevations of Temperature**.

No programme was set for Tuesday evening, which was thus left free to members for social or other engagements.

Wednesday Morning, October 21st:

Two hundred and fifteen members of the association had registered when the morning session was called to order at 9.50. In the course of the proceedings papers were read as follows:

Ergot in Alcoholism and Morphinism and the General Class of Drug Habit Cases.—Dr. ALFRED T. LIVINGSTON, of Jamestown, N. Y., read this paper. Since he had read his last paper before the association he had had many patients, and among them many doctors. All victims of narcotics might be con-

sidered under the same class; it was not a disease, but these patients were simply victims of self indulgence. Physicians should never prescribe narcotics, as most of the victims could ascribe their first downward step to prescription by their family physician. Instead of morphine for insomnia, nervousness, etc., ergot should be given, and hypodermically for choice. In addition to ergot, cold to the head, galvanism to the spine or static electricity to the body generally, dry-cupping, and massage, applied by an expert, would be found to obtain better results in the long run than the immediate application of narcotics. When the narcotic patient came under the care of the physician, the best method was to stop the morphine at once; there was suffering for twenty-four to forty-eight hours, but the hypodermic use of ergot would go far to relieve the suffering. If the physician had not the stamina to withstand the appeals of the patient, he might reduce the morphine one half from day to day till on the eighth day it was totally suppressed; but the author preferred immediate suppression. It was only in morphine subjects that this difficulty would be met with, as in alcohol patients the results were immediate and satisfactory. In all cases the remedies already suggested for ordinary nervousness would be found most efficacious and, if properly used, would aid greatly in the rapidity of the cure. The cause of sleeplessness and nervousness in most neurasthenics was undoubtedly too great dilatation of the blood vessels and consequent hyperæmia; ergot, by constricting the vessels, relieved the cause and therefore relieved the symptoms. Ergot was not therefore given empirically by Dr. Livingston as he had been accused of doing. Many pharmaceutical manufacturers were now making excellent sterile solutions of ergot for hypodermic use. It was better to give the drug hypodermically than by the mouth or rectum. The bowels should always be kept open, and the skin active, and alcohol, morphine, or other drug begged for should not be given. Fluid extract of buckthorn had been found of value. The diet should be fluid, but nutritious; beef extract to which the powdered fibrin had been added; water with the white of two eggs stirred in. The bowels should be cleared out with calomel and salts. If the gradual reduction plan had been decided upon, use the morphine phthallate, as the reaction from that salt is the least marked. Dr. Livingston stated emphatically that the facts in his paper were based upon personal experience and might be relied upon.

Dr. ALEXANDER LAMBERT, of New York, opened the discussion, giving his experience with 780 alcoholics in Bellevue. Since using ergot the death rate among them had dropped from 27 to 6 every six weeks. He had found that alcoholics would bear large doses of narcotics, except morphine, safely. When they were maniacal, apomorphine, in one tenth grain doses, made them very limp, but they did not vomit. They slept some four hours, and awoke in good condition; the addition of ergot helped them and seemed to confer appetite. Ergot steadied the alcoholic in some six hours. Its effect was almost miraculous in "alcoholic wet brain;" it dried up the serous exudation. In morphinists, most of whom did not wish to be cured, Dr. Lambert tapered the treatment off somewhat by using the ergot.

Dr. WIGGIN also spoke highly of ergot in alcoholic delirium and insomnia; if practitioners had failed in its use, it was because they had given it in too small doses.

Dr. DIDAMA, of Syracuse, suggested that apomorphine was the principal drug used in the Keeley cure. He thought people should be warned against the use of alcohol. Great interest was manifested in this paper and its discussion.

Laboratory Aids to Diagnosis for the General Practitioner.—This paper was read by Dr. B. A. ROBERTSON, of Brooklyn. Dr. Robertson warned investigators that these were but aids, and formed only factors, which must be added to physical examinations, etc., to make a complete diagnosis.

Dr. ROCHESTER, of Buffalo, corroborated Dr. Robertson's conclusions.

When and How to Operate for Gall Stones, by Dr. IRVING S. HAYNES, of New York, was the next paper, and this was followed in turn by

Puerperal Sepsis, by Dr. JAMES H. BURTENSCHAW, of New York. Dr. Burtenshaw said that in no essential way did puerperal infection differ in its nature or onset from sepsis following a surgical operation. Reduced to few words, the treatment should aim (1) to remove the source of infection; (2) to neutralize the effects of the septic germs or of their toxins; (3) to support the patient's vitality. He believed curetting of the septic uterus with a sharp instrument to be unjustifiable, but recommended that retained secundines be removed by means of a finger or, under certain circumstances, with a dull wire curette. Every care should be taken not to wound the endometrium. Lacerations of the cervix and vagina should be cauterized. The cavity of the uterus should then be irrigated with two gallons or more of warm salt solution, or one per cent. lysol solution. Both cavities should then be packed with ten per cent. iodoform gauze. He had never obtained as satisfactory results from the use of vaginal or uterine tampons soaked in formalin or alcohol. He did not favor continuous irrigation of the uterine cavity in cases of infection, as the pathogenic organisms were lodged beyond the granulation wall. In sapræmia such irrigation might be of benefit. He did not approve of hysterectomy in these cases, as, if operation was performed sufficiently early to insure a good result, one could never be certain that the operation was absolutely necessary. To neutralize the effects of the germ invasion he believed in promoting bowel and kidney functions to begin with. The administration of antistreptococcic serum had been disappointing, as had the intravenous use of formalin solution. Opening and packing of the posterior cul-de-sac with iodoform gauze was commended. Considerable stress was laid on the good effects obtained from the use of normal salt solution. It was still a moot question as to the manner in which the solution exerts a favorable influence, but the term *lavage du sang* would appear to be particularly significant in this connection. With the use of unguentum Credé and collargolum the speaker's experience has been limited.

To support the patient's vitality he advised that her diet be nutritious to the last degree, but of such nature that the tax put upon the digestive system

should be reduced to a minimum. He believed strongly in the administration of brandy or whiskey in liberal doses, not only for their stimulating effects, but as a food. Ergot, strychnine, and quinine, were always indicated. During the past year he had also prescribed a French wine, said to contain seven tenths of a grain of iodine to each tablespoonful, apparently with great benefit. Temperature should always be controlled by means of cold sponging, and never by antipyretic drugs.

The paper was discussed by Dr. JOSEPH B. COOK, of New York, who said that success in treatment depended upon the early diagnosis of sepsis.

Dr. EDEN V. DELPHEY, of New York, depended upon the sharp curette in many cases, and used digitalis as a succedaneum to ergot.

Dr. ROCHESTER, of Buffalo, spoke of gonorrhœa as an important ætiological factor, and of the value of tincture of iodine as a prophylactic douche at the time of labor.

The paper of Dr. IRVING S. HAYNES, of New York, on **When and How to Operate for Gall Stones**, was read in a considerably shortened form, on account of the lateness of the hour. For the same reason discussion of this paper was omitted.

Considerable interest, not confined to the medical profession, was aroused by the paper of Dr. CHAUNCEY P. BIGGS, of Ithaca, on **The Typhoid Epidemics in Ithaca with Special Reference to Causation, Prevention, and Treatment**. Dr. BIGGS said that the Ithaca water supply came from surface streams, and was certainly infected. The resemblance to an outbreak at Plymouth, Pa., several years ago was most marked. In that case the town was infected from a mountain stream, swollen after a storm, and the infection was found to have come from a house, forty feet away from the border of the stream, where there had been a typhoid fever convalescent. In Ithaca, those families supplied by wells, free from infection, and those supplied from a third stream, not included in the supply furnished by the company, as well as those who took the precaution to boil the city water, escaped the fever. In December, a dam was building at Six Mile Creek, with a plan to construct a filtering plant, but the severe weather made the workmen quit; snow storms and thaws followed, till the water was filled with animal and vegetable *débris*. Typhoid began in January and February, secondary cases occurring in the following July from wells, apparently infected from sewers. The occurrence of 700 cases in the first three weeks showed the severity of the epidemic. It was impossible to say when water, once infected, became fit to drink, and this was learned by the lay members of the Ithaca commission, appointed to investigate the matter, with regret. A striking incident of the epidemic was the contrast between careful citizens, who were in a panic if they had brushed their teeth in unboiled water, eaten unwashed fruit, drunk soda water made from city water, or even eaten food from plates not washed in boiled water, and those who really exhibited a criminal carelessness in their neglect of ordinary precautions. The authorities thought the first class could not be too careful, but if they had ceased their inattention to details in time, they considered the danger was not great. In one family where there were five cases, but at long intervals,

the authorities were puzzled, but finally decided that infection had proceeded from one young child of whom the whole family had been very fond, and had caressed and fondled without regard to consequences. Children probably had communicated the disease frequently owing to communication by urine, feces, etc., where care in handling had probably been lax. Owing to the fact that urine was a great source of contagion, the authorities had ordered all patients to take urotropin, but Dr. Biggs considered that the bacilli soon left the urine in any case, although he thought it possible the drug hastened their departure. In many cases of supposed typhoid, of course, the diagnosis was not positive. The treatment consisted of cold baths, use of normal salt solution, and acetozone (which some praised, but others thought produced hemorrhage by evolution of gas in the intestine). A curious fact was that, there being much grippe at the time in Ithaca; those whose pulse went above eighty to ninety, and whose temperature rose above 102°, almost invariably developed typhoid fever.

An important letter from Dr. Frederick C. Curtis was received at this point announcing the appointment of a committee by the Medical Society of the State of New York to confer with the committee recently appointed by the association. Prolonged applause greeted the letter, which was redoubled when Dr. A. T. Bristow was introduced by the president to speak upon this matter. Dr. BRISTOW said merely a few words of friendly import.

Dr. GEORGE H. SIMMONS, of the American Medical Association, was then introduced, and spoke of the great satisfaction which he felt personally and which was felt all over the United States, on account of the approaching union of the society and the association. Great applause followed his remarks.

Dr. PHILIP MARTEL, of New Jersey, also spoke on this point by invitation of the president, and *inter alia* invited everybody to Atlantic City next June.

Dr. C. I. BONAFIELD, for many years secretary of the American Medical Association, announced his gratification at the prevailing love feast.

Dr. DUDLEY, of Pennsylvania, also spoke to the same effect.

Dr. WIGGIN then presented a patient on whom he had operated for rectal carcinoma some years ago.

This closed the morning session. Luncheon followed at 1 p.m.

Wednesday Afternoon:

THE PRESIDENTIAL ADDRESS

which had been postponed from the morning programme, was delivered on the opening of the afternoon session by Dr. FREDERICK HOLME WIGGIN, who took for his theme the status and future of medical education and legislation. He reviewed briefly the struggles of the medical profession in the United States since the first medical school had been established; the growth of various abuses, the notorious one of dispensaries, that of contract labor, and the extraordinary abuse of medical charities. He said that there should be one powerful society, composed of many strong component societies, that is, there should be a National society, made up of State societies and the latter made up of county organiza-

tions. Such a combination could appeal, first to its members, then to its component county and State units, so effectually as almost to compel the enactment of any particular piece of legislation beneficial to the profession. A danger that might be feared would be the formation of a strong minority that would control the society to its own ends, but we should trust to the character of the members we chose for such membership. Practitioners had been graduated in the past with too slight qualifications, with the result of overcrowding the profession with poorly qualified men, which led to the evils of quackery, contract labor, and too liberal dispensary work; thanks to the lead of Harvard, in the future we should have men thoroughly grounded in the preliminary studies of medicine, perhaps even Bachelors of Arts before they matriculated. The ethics of medicine and the history of medicine were subjects which the president would suggest as suitable for first year students. In the future, there would be fewer and better schools. Indiscriminate charity would be abolished and attendants on dispensaries and hospitals would be properly remunerated for their work. A National society would be conducted on proper commercial lines, with clerks, stenographers, and all the other machinery of a perfect business office; it would have a library, a register of all properly licensed physicians, an annual directory with information concerning each practitioner, arrangements for a pension for disabled or superannuated physicians and, as criticism and publicity are the greatest safeguards against fraud, it would have its own Journal monthly for the State society and weekly for the National organization, which would watch carefully the interests of all. There should be a National medical law or at least a State reciprocity law by which graduates in one State should be allowed to practise in any other. The present law, which allowed patent medicine manufacturers to evade the patent medicine regulations as to secret preparations by copyrighting the name of their specialty by the copyright law, should be done away with, and physicians should use the power they have by refusing to prescribe any secret preparation. He was glad to note that physicians were beginning to understand the power of organization and nothing could be more hopeful than the measures that had been taken by the association of which he was proud to be President and by the Medical Society of the State of New York toward amalgamation.

A vote of thanks was unanimously tendered to the President for the address.

Dr. EDGAR H. DOUGLAS, of Little Falls, being absent, his paper on Typhoid Delirium with Cases, was not heard, and Dr. CHARLES B. TEFFT, of Utica, proceeded to read his paper on

Sewage Disposal as a Means of Purifying the Water Supply of the Cities and Towns of the State, in which he discussed the best means of disposal and touched on the ignorance of the subject and the carelessness manifested, particularly in small towns and villages.

Dr. D. P. AUSTIN, of New York, presented a patient who, although operated upon May 4, 1870, has never been hitherto presented before a medical organization, nor his case described. The case was

one in which the left superior maxilla was removed for phosphorus necrosis. Dr. CHARLES N. DOWD, Dr. JOHN W. GOULEY, Dr. JOHN A. BODINE, and Dr. WIGGIN, all of New York, discussed the case and mentioned similar cases in their own experience, phosphorus poisoning having been common thirty years ago.

Dr. R. H. HUTCHINGS, of Ogdensburg, being ill, his paper giving Suggestions for the Examination of the Presumably Insane was not read, but Dr. C. E. ATTWOOD, of White Plains, was requested to make a few remarks on the subject; he spoke of the predisposing causes to be elicited from family and friends (heredity, etc.), and the exciting causes, alcoholism, sexual excesses, etc. Inspection taught much, appearances of depression or exaltation being common.

The Treatment of Pneumonia, a paper by Dr. DE LANCEY ROCHESTER, of Buffalo, was a summary of the newest therapeutic measures. Skin and bowels must be kept active, the former by hot foot baths containing a little mustard, iced cloths being meanwhile kept on the head. The mouth should be rinsed frequently. The diet must be fluid and sterile with plenty of water. A sunny room was advisable. Dr. W. GILMAN THOMPSON, and Dr. A. ALEXANDER SMITH, of New York, discussed Dr. ROCHESTER'S paper. Occasional bleeding was one of the subjects debated with considerable warmth.

Dr. CHARLES STEDMAN BULL followed with his paper on Arteriosclerosis and Its Bearing on Certain Lesions of the Retina and Optic Nerve.

Dysmenorrhœa was the topic of a paper by Dr. CHARLES BONIFIELD, of Cincinnati, who said that dysmenorrhœa was not really a disease but a symptom, although its severity often made the diagnostician consider it a genuine disease. His classification was not classical, since he divided the varieties into uterine, tubal, ovarian, constitutional, and reflex. Constitutional he thought a better term than neuralgic. Most cases originated in the uterus, but not all. The causes were, lack of development of the uterus, usually at puberty; flexion of the uterus, long cervix, pinhole orifice, with endometritis; enlarged, tender uterus with retroflexion or retroversion, and adhesions. Membranous dysmenorrhœa was really an exfoliative endometritis. Disease of tubes with pelvic peritonitis might be a cause, as might hydrosalpinx and lack of development of ovaries, cystic ovary, or gonorrhœa. The ovary might be prolapsed. Anæmia might be the cause, or the gouty diathesis, functional liver, kidney, or heart disease, or that of the blood vessels, malaria, syphilis, or indigestion, especially of the intestinal form. The cause, as a matter of fact, was often hard to find. Careful examination, in all cases, should be made of the abdomen, chest, urine, and blood. Pain at one side usually meant disease of the annexa, but it should be remembered that the pain might be on the opposite side from the really affected organ. Pain down the thigh generally meant an undeveloped uterus. Bimanual examination was the most important means of examination and diagnosis, supplemented by inspection and the passing of the sound; although the latter was not always certain, as a metal object might be passed easily when the passage of blood and fluids caused intense pain. The

treatment should consist of the removal of pain, by heat, rest in bed, hot drinks, and hot sitz baths. Opium and alcohol should be avoided as particularly likely in these cases to lead to a habit. The coal tar products were often good. A combination of atropine and sodium bromide had been found excellent by Dr. Bonifield. *Viburnum prunifolium*, and *veratrum viride* had their advocates, and the salicylates sometimes helped. In married women examination should be thorough, but in young girls examination was unwarrantable, unless pain was unendurable. Constitutional treatment must be rational, depending upon the diathesis, gouty, arthritic, etc. In chlorosis, intestinal antiseptics had been found superior to iron. Constipation should always be combated, and exercise indulged in, alternated with rest, with full diet. In the gouty, fruit and plenty of water were the rule. Sexual hunger aggravated the condition, so the mind should be diverted to wholesome thoughts. If there was endometritis, curettement must be performed; a strip of iodoform gauze in the cervix sometimes acted well. The stem pessary was coming back, its bad reputation being now attributed to its use in the preaseptic days. If there were subinvolution, curette and prescribe rest; if the ovary was prolapsed, suture it to the broad ligament; if the ovary be cystic, it must be excised. As a last resort, complete ablation of uterus and annexa must be practised.

Papers by Dr. RICHARD C. CABOT, of Boston, Mass., on The Properties of the Blood Serum as Illuminated by Ehrlich's Researches, which was discussed by Dr. E. K. DUNHAM and Dr. JOHN S. THATCHER, of New York, and by Dr. F. W. HIGGIN, of Cortland, brought the afternoon session to a close.

Wednesday Evening:

THE ANNUAL BANQUET.

At 7.30 the annual banquet of the Association took place at the Manhattan Hotel. The room and table were handsomely decorated, red being the predominating color. About 160 members sat down together with the following invited guests: Dr. John H. Musser, of Philadelphia, president-elect of the American Medical Association; Dr. A. T. Bristow, President of the New York State Medical Society; Dr. E. J. Lederle, President of the Board of Health of the City of New York; Dr. O. H. Marcy and Dr. Richard C. Cabot, of Boston; Dr. Abraham Jacoby, Senator Elsberg, Honorable John S. Wise, and Reverend Merle St. C. Wright.

The most notable incident of the speaking was a reference made by the last named guest to euthanasia, which he said was of course a dream, but as a dream he had no hesitancy in advocating the doctrine though he realized the utter impracticability of its adoption.

(To be concluded.)

The Death of Dr. Ludwig S. Filbert, which occurred in Philadelphia on October 19th, terminates a career created by intelligent and tireless energy. He was born in Berks county, March 12, 1825, and graduated in 1846. In 1857 he was appointed port physician in Philadelphia. Dr. Filbert retired from active practice some years ago.

Therapeutical Notes.

Cinnamic Acid in Phthisis.—*Revue française de médecine et de chirurgie* for October 5th, gives the following formula for use in phthisis:

- R Arsenious acid.....10 centigrammes (1½ grains);
Pure potassium carbonate.....20 centigrammes
(3 grains);
Pure cinnamic acid..30 centigrammes (4½ grains);
Distilled water.....5 grammes (75 minims).

Heat till a clear solution is obtained; then add:

- Cognac.....2½ grammes (37½ minims);
Aqueous extract of opium.....30 centigrammes
(4½ minims);
Distilled water.....2½ grammes (37½ minims).
M. Dissolve and filter; 6 drops twice daily, gradually
increasing to 22 drops.

The Treatment of High Arterial Tension.—According to the *Bulletin Commercial* for September, M. Huchard considers the action of the iodine preparation, as reducers of arterial overtension, very slight. Iodine medication is, however, indicated when there is confirmed sclerosis, in which case the resolvent action of iodine on the sclerosed tissues may be explained by phagocytosis. In the period preceding sclerosis, iodine medication is useless, and it is better to have recourse to essential vasodilators, e. g., amyl nitrite, trinitrine, erythrol tetranitrate, or sodium nitrite. He employs, for this purpose, the following:

- I. R Sodium nitrite.....0.20 grammes (3 grains);
Potassium nitrate.....1 gramme (15 grains);
Sodium bicarbonate.....2 grammes (30 grains);
Water.....60 grammes (2 ounces).

M. Ft. mist.
This mixture to be taken one, two, or even three times in the day.

Sodium nitrite, being very deliquescent, cannot be used in a wafer, and the object of the addition of the bicarbonate is to obviate the decomposition of the nitrite, which is much favored by an acid medium.

2. R Boiled distilled water....300 grammes (10 ounces);
Sodium nitrite.....2 grammes (30 grains);
Potassium nitrate.....10 grammes (150 grains);
Sodium bicarbonate.....20 grammes (300 grains).
M. Ft. mist. A tablespoonful or a dessertspoonful, once, twice, or thrice daily in half a glass of water.

At the same meeting of the Academy of Medicine, on June 30th, Dr. Robin said that sodium nitrite, so much employed in England and extolled by Lauder Brunton, had not found favor on the Continent because it was supposed to be a blood poison, transforming hæmoglobin into methæmoglobin. This was true when it was used in large quantities; but in sufficiently active therapeutic doses of from 5 to 20 centigrammes (¾ of a grain to 3 grains), combined with 1.20 gramme (18 grains) of potassium nitrate, and rendered alkaline with 1.80 gramme (27 grains) of potassium bicarbonate, sodium nitrate was not a noxious drug, but possessed great advantages. This combination, taken once or several times a day in a little water, rapidly lowered arterial tension to an invariable point, where it remained even after the disuse of the medicament.

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NEW YORK, SATURDAY, OCTOBER 24, 1903.

THE NEW YORK STATE MEDICAL ASSOCIATION.

In less than a week after the adjournment of the semiannual meeting of the Medical Society of the State of New York there has been held the twentieth annual meeting of the New York State Medical Association. For twenty years we have had to endure a division of our forces in the State of New York. For twenty years each section of the profession has borne the expense of a meeting of its own, and performed the attendant executive work, when one meeting would have sufficed. We are proud to be able to say that each organization has steadily maintained a high order of scientific work, but it has been a constant source of regret to all the physicians of the State that the division has been kept up so long. Now, at last, unless all probabilities are to be upset, disunion is shortly to cease, and once more the profession of the State of New York is to be united.

We all think we foresee that this week's meeting of the New York State Medical Association is the last that will be held by a body having that name, and we hope that before the time comes round when in the regular course of things its next annual meeting would occur it will have been consolidated with the Medical Society of the State of New York. The twenty years have shown us what the profession of the State, even divided, was capable of, and we shall therefore

expect more from future work in unison than would have been dreamed of twenty years ago. To begin with, we think, there must be two meetings every year, one of them in Albany and the other in New York, and perhaps there should be two volumes of *Transactions* annually, though possibly a moderate enlargement of the present volume would suffice.

Whatever happens, whether this week's meeting of the New York State Medical Association is to be its last or not, the association is to be congratulated upon having for the whole period of its existence maintained annual meetings conspicuous for the value of the scientific proceedings, which value is particularly shown in this year's meeting. The fact of its excellent work is an additional sign, if any were needed, of what could be accomplished by the united medical profession of the State of New York. The New York State Medical Association is probably destined to a cessation of its existence under that name, but it will always live in the annals of medicine for the good work it has done.

THE IMPIOUS EFFRONTERY OF DOWIE.

It is very satisfactory to be able to say that up to the time of this writing that impudent impostor, Dowie, has met with no encouragement in New York. No doubt New York, like many another town, needs reclaiming, but the reclamer must be genuine, not such an impious fellow as this canny speculator who really seeks only to feather his own nest. He and such as he batten upon the credulity of the weak-minded. The credulity is almost unlimited, but not quite; there comes a point at which it fails to respond to the tap. That point, there is good reason to believe, this blasphemous person has already reached.

Dowie would subvert all forms of religion and all medical science, substituting himself for both, proclaiming himself a "healer" as well as an "Elijah." But the spectators will have none of him. They are willing enough to listen to his choir, but, having heard that and satisfied their languid curiosity, they mostly depart from the building in which he is daily ranting. His "guards" are powerless to prevent the exodus, and the police have politely but firmly declined to assist them in imprisoning our citizens. This

pompous pretender, who does not disdain the flesh pots of Egypt, may find even his chosen ones deserting him when they realize the impotence of his raging.

In this matter the clergy of all sects and the medical profession are at one, for Dowie simultaneously affronts them. We have just had celebrations of St. Luke's Day, a day sacred to that physician who was one of the apostles and one of the evangelists. Will any of the devout, no matter of what sect, give an ear to the vile pretender who flouts what Christ recognized; and if there is yet left any considerable number of pagans of unstable mind who have not already given in their adhesion to Christian Science, will they be weak enough to embrace such a dilute pseudoreligion as this charlatan holds out to them? We hope that in New York the *coup de grâce* is to be given to Dowie, and that the result may be that it will be many a long year before such another "army" as his will show itself in this or any other large town. We have been surfeited with pretentious mountebanks; let us hope that Dowie's invasion is the last dose we are destined to encounter for some time to come.

THE MEDICAL DEPARTMENT OF THE ARMY AND THE CONTRACT SURGEON.

A recent article in the *Journal of the Association of Military Surgeons*, by Dr. Azel Ames, late brigade surgeon, United States Volunteers, calls attention in impassioned language to the unsatisfactory and humiliating status of the acting assistant surgeon in the army. The writer enumerates under thirteen heads the injustices suffered by the uncommissioned army physician, and as an additional one alludes to "the hateful and dishonoring term" of contract surgeon. While to a calmer and more critical mind some of the statements of Dr. Ames seem to lack substantiation, such, for example, as his assertion of the "persistent official opposition" of the surgeon general's office to any relief legislation; yet there is, when these are excluded, abundant justification of his claim for the attention of the medical profession to this matter. It is certain that the contract surgeon at present, deprived of the power of command even over enlisted men of the Hospital Corps, his uniform stripped of every badge of official rank, and

his very title significant only of the hired man, occupies a position repugnant to the dignity of a learned and honorable profession and injurious to his usefulness as a medical officer.

The remedy found by Dr. Ames for all the ills complained of is "commissioned rank." This is evidently right, and in adopting it our government will be simply following the universal experience of all other military nations, that the physician serving with troops cannot properly perform his administrative duties or fittingly maintain the dignity of his profession without an actual and definite place in the official hierarchy. It must, however, be admitted even by so ardent an advocate as Dr. Ames that a commission signed by the President has no enlightening influence in cases of difficult diagnosis or hazy notions of anatomy, nor can it in any way increase professional efficiency, although it makes much more difficult the removal of the incompetent from the service. Therefore, to have the medical service gain by the commissioning of contract surgeons, it is obvious that the exclusion of the incapable and unfit must be secured so far as possible by adequate examination as to their professional attainments and moral character. If this is done, the gap is much narrowed between the regular and the temporary army doctor. And this leads logically to the inquiry as to why the regular medical corps should not be sufficiently enlarged to perform all the medical service of the regular army on a peace footing, reserving the employment of civilian surgeons under temporary commissions as a means of expansion for war, and when an increased personnel is made necessary in time of peace by epidemics or "little wars" or by enlargement of the army by executive orders within the limits of authorized strength.

The British commission to investigate the conduct of the South African war made numerous observations with reference to the medical service which are equally applicable to our own army, and none more so than the axiomatic remark that *a staff department which is inadequately manned to perform its duties in time of peace cannot be successfully expanded to meet the emergencies of war.* The maximum authorized strength of the army is 100,000 men, and it is officered for that strength, except in the medical department. The present

strength is fixed by executive order at about 59,000, and, yet, to perform the medical service of this reduced army the regular medical corps has to be supplemented by the employment of two hundred contract surgeons. Argument is not necessary to set forth the weakness of such a system, of which nothing good can be said, except that it has the appearance of cheapness and convenience, and provides a medical corps of five hundred, which in its higher grades and opportunities for promotion is inadequate for three hundred. When, in addition, it is recalled that the prospects of promotion in the corps were by the act of reorganization of 1901 greatly impaired by undue increase in the lower grades, it is seen that the medical department is much worse prepared to meet the increased labors and responsibilities of war and attract good men to fill the vacancies in time of peace than it was at the beginning of the Spanish war. In other words, while all other branches of the service have by a wise liberality been greatly improved by the reorganization which the experience of that war showed to be imperative, the medical department has been dealt with in a spirit of narrow parsimony entirely at variance with the recommendations of the President's commission, the example of other nations, and the lessons of the Spanish war. It is hoped that Congress will at its coming session provide for a medical corps adequate in number and in its provision for promotion and, in addition, provide for the expansion of this corps when necessary by the employment of civilian physicians under a temporary commission which will secure them an honorable official status.

CENTRALIZATION IN DIDACTIC TEACHING.

We are not of those who would altogether do away with didactic lectures in the medical schools, and we are glad to notice that the *Lancet*, in its issue for October 3rd, remarks that too much importance should not be attached to the contention that students can get more sound information by reading and by attendance on practical work than by listening to discourses of which they are able to assimilate only a small portion. Students vary, says our contemporary, and a few find it useful to have their practical instruction imparted to them

in the form of abstract rules which they can lay to heart and apply at their leisure. It is certainly true, we are convinced, that many a point in the didactic lectures sinks into the memory deeper than an equivalent off-hand remark made at a clinic.

The *Lancet* goes on to argue that, however desirable didactic instruction may still be, it is a wasteful policy to have a corps of didactic lecturers at every one of the many schools that exist in London. It contends that this element of instruction might advantageously be concentrated. This is doubtless the case in so large a city as London, and it is still more desirable in many smaller cities that have more than one undergraduate school each. Perhaps it is more feasible in London than in our own cities, because there the schools do not grant a degree, but simply aim to fit their students to pass the examination of a licensing or degree-granting body.

There really ought not to be more than one university in any town, no matter how large the town may be, but we suppose it is impracticable to reduce the number of degree-conferring bodies in some of our American towns. The lesson might be learned, however, of never establishing an additional university in a town already containing one. In that institution all the necessary didactic instruction might be given and the power of conferring degrees be taken away from the proprietary medical schools, which might still find an ample field in laboratory and clinical teaching, both of undergraduates and of graduates. The smaller schools might encounter difficulties in the way of financial resources, but in any event it seems inevitable that the weaker one should go to the wall.

PERITONITIS OF UNDISCOVERED ORIGIN.

We now think we know that peritonitis, which formerly figured so largely in mortuary reports, is never a primary pathological condition, but is always the consequence of some infection. This conviction is not weakened by the occasional occurrence of cases of peritoneal inflammation in which the source of the infection escapes recognition. Nevertheless, instances of peritonitis of unknown origin are of unusual interest, and ought always to be recorded. Several such cases have recently been put on record by Dr. G. E. Armstrong, of Montreal (*Montreal Medical Journal*, October).

The fact that all the cases, five in number, occurred in women is considered by Dr. Armstrong to be suggestive, and he thinks it quite possible that a more thorough and systematic search would have disclosed the same streptococci as were found in the peritoneal fluid to be present also in the uterus and in the Fallopian tubes. In each of two cases Dr. Armstrong has been fortunate enough to have the patient recover after an operation and thus escape the pathologist's more critical examination, but he thinks that the vagina, the uterus, and the Fallopian tubes are a likely way of entrance for the germs, and that those organs should certainly be most carefully examined bacteriologically whenever no obvious cause of the peritonitis is recognized.

We are all tolerably familiar with unaccountable rises of temperature in various pathological conditions, so that it is hardly surprising to be told by Dr. Armstrong that on the sixteenth day after a successful laparotomy for peritonitis of undiscovered origin the temperature suddenly shot up to 104.2° F. and the pulse to 160, and that both returned to their normal points on the following morning.

"We are beginning," says Dr. Armstrong, "to realize the very great difference in the extent of surface involved and in the virulence of cases of both acute and chronic peritonitis. The ætiological factors being so varied and numerous, the result could hardly be otherwise. In fact, the more one studies peritonitis the more one feels inclined to accept the suggestion of, I think, a French writer, to abandon the term peritonitis and adopt that of 'infection of the peritonæum.'"

FOURTH OF JULY TETANUS.

In another column will be found a series of resolutions adopted at the recent meeting of the Mississippi Valley Medical Association, having reference to the tetanus cases which occur in ever increasing numbers after each Fourth of July celebration. We have repeatedly expressed our opinion on the subject of the use of toy pistols, cannon crackers, and other dangerous accompaniments of that soul-stirring season; and we sincerely trust that in the general interest some measures will shortly be taken to obviate both the dangers and the nuisance (in itself a danger to the invalid and nervous) of such objectionable

methods of commemorating our justly revered national anniversary.

THE NATIONAL ASSOCIATION FOR THE STUDY OF EPILEPSY.

We would call particular attention to the announcement, published in our news columns, of the forthcoming third annual meeting of this association. Epilepsy offers a most inviting field of study, one that is in extreme need of cultivation, and we hope that there will be a full attendance at the meeting.

THE TREATMENT OF PERNICIOUS ANÆMIA.

Perhaps a noteworthy addition to our list of remedies for pernicious anæmia is to be found in the raw spinal cord of young cattle. Fabian (*Deutsche militärärztliche Zeitschrift*, 1903, No. 5; *Berliner klinische Wochenschrift*, September 28th) reports an extraordinarily favorable result in one case. He gave at first about 1,000 grains a day, and increased the amount to 6,500 grains.

A RECORD IN LONG GESTATION.

In the *Monatshefte für Geburtshilfe und Gynäkologie* for January it is stated that in 1902 there was exhibited before the Gynecological Society of Munich a male child, nine days old, born 339 days after the last menstruation. The mother is said to have been a primipara, eighteen years of age, and the child at birth weighed eleven pounds, and had a stature of 29½ inches.

MALIGNANT NEOPLASMS.

A summary of a scholarly article by De Quervain (*Semaine médicale*, September 20th) will be found elsewhere in our columns, in which he reviews the results of the recent study of the histogenesis of cancer. This scourge of our modern life does not seem to confine its ravages to the human body, but its study would appear to influence the human mind for the worst; a fact that Dr. J. G. Adami spoke of in our issue for October 17th. It is doubtless the glory and immortality that await the man who shall discover the ætiology and, inferentially, the cure of cancer that make monomaniacs of some pathologists. The ætiology of cancer is the Philosopher's Stone of modern science. Some of the theories advanced as to the nature of the disease are so poetical that they should be true. We refer to the idea that the cancerous cells are barbarians, alien cells, with a grudge against the civilized cells of the body, or that they are "anarchistic" cells, which amounts to the same thing, bound on ruining order and reducing the bodily system to chaos.

Such speculations are, at least, philosophical and show scholastic training. Are the cells, as it were, criminal? Is there a parasite? Are we on the verge of pinning cancer, innocuous, in our cabinet drawer, or are we dreaming, as our forefathers did, of a delusion like the transmutation of metals?

News Items.

Society Meetings for the Coming Week:

MONDAY, October 26th.—Medical Society of the County of New York (annual meeting); Lawrence, Mass., Medical Club (private); Cambridge, Mass., Society for Medical Improvement; Baltimore Medical Association.

TUESDAY, October 27th.—Metropolitan Medical Society, New York (private); Buffalo Academy of Medicine (Section in Obstetrics and Gynecology); Richmond, Va., Academy of Medicine and Surgery; New York Medical Union (private); Rome, N. Y., Medical Society; Boston Society of Medical Sciences (private).

WEDNESDAY, October 28th.—New York Academy of Medicine (Section in Laryngology and Rhinology); New York Pathological Society; New York Surgical Society; American Microscopical Society of the City of New York; Philadelphia County Medical Society; New York Dermatological Society (private); Auburn, N. Y., City Medical Association; Berkshire, Mass., District Medical Society (Pittsfield).

Changes of Address.—Dr. Armin Nettle, of Brooklyn, to 48 Stuyvesant Street, Manhattan; Dr. George H. Ryder, to 135 West Fifty-eighth Street; Dr. Geo. E. de Schweinitz, from 1401 Locust Street to 1705 Walnut Street, Philadelphia.

NEW YORK, CITY AND STATE.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending October 17, 1903:

DISEASES.	Week end'g Oct. 10.		Week end'g Oct. 17.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles.....	71	4	89	2
Diphtheria and croup.....	293	37	247	83
Scarlet fever.....	91	6	87	6
Smallpox.....	4	0	0	0
Chickenpox.....	24	0	42	0
Tuberculosis.....	282	136	276	128
Typhoid fever.....	122	19	138	16
Cerebrospinal meningitis.....	122	5	..	5
Totals.....	887	207	879	190

Small Patients at Bellevue.—On October 13th, two patients arrived at Bellevue Hospital, the combined weight of whom was but two pounds, ten ounces. They were placed in the incubator.

The Utica Medical Library Association met at the Butterfield House, Utica, on the 5th instant, and elected the following officers: President, Dr. William S. Morris; vice-president, Dr. T. H. Farrell; secretary, Dr. C. V. J. Doolittle; treasurer, Dr. F. M. Miller; librarian, Dr. George Seymour.

Changes at the Norwegian Hospital.—On October 16th, Dr. R. G. Moore resigned from the Norwegian Hospital, Brooklyn, to accept a position at the Orthopædic Hospital, Manhattan. Dr. W. R. Hirsman, his assistant, succeeded him, and was replaced in his turn by Dr. W. L. Stork, a graduate of Columbia.

To Inspect Summer Resorts.—The State Health Commissioner, of New York, will ask the next Legislature for an appropriation sufficient to provide for an adequate inspection of health resorts throughout the State, with a view to the prevention of the spread of typhoid fever.

The Wyoming County Medical Association held a regular quarterly meeting at Attica, N. Y., on the 6th instant when the following programme was discussed: Fibrous Tumors, by Dr. C. C. Frederick; Cerebral Compression Due to Traumatic Hæmorrhage, by Dr. Eugene A. Smith; reports of interesting cases by members of the association. President, Dr. P. S. Goodwin, of Perry; secretary, Dr. L. Hayden Humphrey.

Another Medical Impostor.—Dr. J. A. Beuermann, of 1891 Lexington Avenue, writes to us that a beggar, claiming to be a graduate of Zurich, and calling himself Neumann or Burkhardt, has victimized a number of the doctor's acquaintances. His story is that so soon as his wife joins him—and she is reported to be on the way—he will be in possession of adequate means, and that meanwhile he is awaiting an opportunity to pass the regents' examination.

PHILADELPHIA AND PENNSYLVANIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

	Week end'g Oct. 10.		Week end'g Oct. 12.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	11	3	54	4
Diphtheria	82	11	97	7
Scarlet fever	84	2	70	5
Typhoid fever	78	9	103	9
Consumption .....	..	42	..	50
Cerebrospinal fever .....	..	3	..	..

Philadelphia Graduate to Practise in Persia.—Dr. Joseph Shmoon, a graduate of the Jefferson Medical College, is returning to his native land, Persia, to practise medicine. Before leaving he became an American citizen.

Pure Food Crusade in Philadelphia.—Based upon information furnished by the Dairy and Food Departments a number of warrants have been issued for the arrest of Philadelphia dealers on charges of having violated the pure food laws, by selling adulterated blackberry brandy, molasses, lard, vinegar, and vanilla extract.

The Juvenile Detention Room.—Action will soon be taken by the Health Department of Philadelphia toward remedying the unsanitary conditions which were reported in this journal last week as existing in the detention room for juvenile breakers of the law. Rigid investigation is now going on, and the department is expected to declare it a nuisance within a few days.

Medical Inspection of Schools.—A meeting of the Committee on Hygiene of the Board of Education, of Philadelphia, in session on October 20th, considered the plan for the systematic medical inspection of pupils of public schools as suggested by Dr. Edward Martin, Director of the Department of Public Health and Charities, and mentioned in these columns last week. If the measure is approved by the Board of Education, prompt action on the part of the health authorities is expected.

The Adulteration of Beer in the State of Pennsylvania has given rise to renewed activity on the part of the State Dairy and Food Commission. It has been asserted that 85 per cent. of the samples in 365 instances were adulterated with salicylic acid.

Flowers for the Philadelphia Hospital.—An effort is being made to secure from farmers and others who are engaged in horticulture superfluous seeds of flowers and plants themselves for decorating the Philadelphia Hospital and cheering its inmates.

The American Röntgen Ray Society will meet at the University of Pennsylvania, in Philadelphia, on December 9th and 10th. Details regarding the meeting may be obtained by addressing the secretary of the society, Dr. James B. Bullitt, 205 West Broadway, Louisville, Ky.

Friction at the Municipal Hospital.—A number of employees of the Municipal Hospital, in Philadelphia, are ventilating their grievances about an alleged delay in the receipt of their salaries. The matter had been agitated a short time ago, but seemed to have been temporarily adjusted. The majority of the attendants seemed to have firmly organized in their remonstrances, and it is to be hoped that a speedy adjustment of this state of affairs will soon put an end to the trouble.

The University of Pennsylvania X Ray Laboratory.—The twenty-five thousand dollars' appropriation awarded at the last meeting of the Pennsylvania Legislature to the University of Pennsylvania will be used for the purpose of erecting a laboratory where patients may be treated with the x rays and the Finsen rays. Dr. Henry K. Pancoast, assistant instructor in clinical surgery and assistant demonstrator of surgery at the university, will be in charge of the extensive series of experiments, which will be begun as soon as the laboratory is completed. This will be the first extensive use of the Finsen rays in Philadelphia.

For the Prevention of Tuberculosis in Philadelphia.—An active campaign, with the object of educating the people to the observance of sanitary regulations, which it is hoped will prevent the spread of consumption, will be undertaken shortly by the Pennsylvania Society for the Prevention of Tuberculosis. It is proposed to hold meetings in many sections of Philadelphia, the addresses to be delivered by prominent physicians, who will present the facts concerning the disease, the dangers of infection, the responsibility of the observance of certain sanitary rules, and the necessity of fresh air and outdoor exercise in a popular manner.

The National Association for the Study of Epilepsy will hold its third annual meeting in Philadelphia, in the hall of the College of Physicians, on November 5th. Among other papers, the programme includes the following: The Presidential Address, by Dr. Wharton Sinkler, of Philadelphia; A Treatment Room for Epilepsy, and Some of Its Results, by Dr. Everett Flood, of Palmer, Mass.; The Treatment of Epileptics in Private Practice, by Dr. William N. Bullard, of Boston; Progress of the New Jersey Village for Epileptics

at Skillman, by Dr. H. M. Weeks; The Early Diagnosis of Epilepsy from Diseases Causing Epileptiform Convulsions, by Dr. Charles K. Mills, of Philadelphia; Report of a Case of Removal of the Ovaries and Tubes for Epilepsy, by Dr. A. H. Halberstadt, of Pottsville, Pa.; Some Considerations Regarding the Surgical Treatment of Epilepsy, by Dr. J. Chalmers Da Costa, of Philadelphia; Report of Cases of Trephining for Epilepsy, by Dr. John C. Munro, of Boston; Some Remarks on Animal Epilepsy, by Dr. L. Pierce Clark, of New York; and The Psychological Aspects of Epilepsy, by Dr. W. P. Spratling, of Sonyea, N. Y. All persons interested in the study of epilepsy or in the relief of epileptics are invited to attend the meeting.

The Development of the Tuberculosis Work at Saranac Lake.—An address on this subject will be delivered, under the auspices of the Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis, in the auditorium of the Witherspoon Building, Walnut and Juniper Streets, Philadelphia, by Dr. E. L. Trudeau, on Saturday evening, October 24th, at half past 8 o'clock. The address will be followed by a reception at the Hotel Bellevue.

CHICAGO AND ILLINOIS.

Statement of Mortality for the Week Ended October 17, 1903, compared with the preceding week, and with the corresponding week of 1902. Death rates computed on estimated mid-year populations of 1,885,000 for 1903, and of 1,820,000 for 1902:

	Oct. 17, 1903.	Oct. 10, 1903.	Oct. 18, 1902.
Total deaths—all causes.....	459	427	445
Annual death rate per 1,000.....	12.68	11.81	12.73
By sexes—			
Males	259	228	261
Females	200	199	182
By ages—			
Under 1 year.....	102	81	66
Between 1 and 5 years.....	41	50	39
Over 60 years.....	87	102	96
Principal causes of death—			
Acute intestinal diseases.....	51	46	27
Apoplexy	17	10	10
Bright's disease.....	28	25	26
Bronchitis	8	8	16
Consumption	45	49	40
Cancer	26	19	25
Convulsions	8	10	10
Diphtheria	20	16	14
Heart diseases.....	35	32	38
Measles	0	0	1
Nervous diseases.....	26	19	33
Pneumonia.....	38	37	45
Scarlet fever.....	3	5	3
Suicide	8	5	2
Typhoid fever.....	16	5	24
Violence (other than suicide).....	28	37	35
Whooping cough.....	1	0	3

GENERAL

The College of Physicians and Surgeons of Milwaukee, Wis., has appointed Dr. Henry B. Hitz professor of Diseases of the Nose and Throat to succeed Dr. F. T. Nye, resigned.

The City Dispensary of St. Louis, Mo., has for the past four months, sent a trained nurse with the house surgeon on each trip of the ambulance; the innovation is said to give great satisfaction.

The Medical and Dental Schools of Tufts College, near Boston, opened on the sixth instant. There are 150 freshmen in the medical department and fifty in the dental school, who, added to the 350 in the academic department, bring the

total number of students in all the years to over one thousand.

The Cleveland, Ohio, City Tuberculosis Hospital opened on the third instant, about sixty patients being removed thence from the old city institution. There is room for some thirty more. The new hospital is distinctly modern in every respect, the equipment leaving nothing to be desired.

The German Methodist Deaconess's Home and Hospital, of Louisville, Ky., held its annual meeting on October 13th and listened to a report that showed that eighty-nine patients had been treated and discharged during the year. A new hospital building will be erected on Eighth Street, between Walnut and Chestnut, at a cost of over \$25,000.

Medical Legislation in New Hampshire.—The legislature of New Hampshire has passed an amendment to the medical practice law which requires the physicians who reside outside the State and spend their summers as resident physicians at summer hotels to pass the State examination in order to qualify for practice.

The National Pharmacophagi.—Dr. H. W. Wiley, of Washington, D. C., has chosen twelve new candidates to form a poison squad on whom to continue the experiments in the common food adulterants, tobacco, alcohol, etc. The names of the young pharmacophagi have not been given out.

At Thermopolis, Wyo., as a result of the recent visit of Bishop Keene, of Cheyenne, it is likely that the Catholic church will build a hospital, and a delegation of Sisters of Mercy from St. Paul will shortly visit the proposed site and make a report on the advisability of the project, the idea being to utilize the hot springs therapeutically.

The Sauk County, Wis., Medical Society was organized on September 25th, at Baraboo, and the following officers were chosen: President, Dr. Charles Gorst, of Baraboo; vice-president, Dr. Turnbauer, of Loganville; secretary and treasurer, Dr. G. L. Cramer, of Baraboo. Among the resolutions adopted by the society was one concerning uniformity of charges.

Indian Medical Secrets.—Dr. J. W. Blankenship, botanist at the State experiment stations at Bozeman, Mont., is making a collection of the herbs used by the Indians for medical purposes; the collection will be exhibited at St. Louis. Dr. Blankenship has unearthed the formula for bread-making from sunflower seeds, used by some of the tribes, and also the nature of the wild tobacco they used to grow, and which was milder than that now in use.

Methodist Hospital in Atlanta.—The children's hospital movement, under the auspices of Methodist Church, South, of Atlanta, Ga., which was started last April with a \$10,000 subscription, is taking definite shape. Further contributions are to come from children only, \$90,000 being required. The institution will be called the Florine McEachern Infirmary, after a deceased child of the founder. The Woman's Board of Missions have charge of the matter.

The Principal of the Windsor Collegiate Institute, at Windsor, Can., after ten years' experience as a teacher, has decided to resign his position and undertake the study of medicine. F. P. Gavin, the teacher in science, will probably succeed Mr. Cody.

A New Swindle.—A swindler calling himself Dr. Holden, recently obtained sums of money, aggregating, it is said, over \$1,400, from three trained nurses to whom he had promised positions in a sanatorium he was supposed to be fitting up. He also vanished with a number of valuable surgical instruments that had been left by the agent of a firm for his inspection. He had managed to furnish a set of offices in South Orange very handsomely in order to create in his victims an impression of solidity.

Novel Course at Boston Medical School.—The opening exercises of this institution were held in the university buildings on East Concord Street on October 8th. A new departure in medical instruction was announced to the effect that a course of lectures would be given by Dr. F. E. Allerd on the relation of life insurance to medicine. Dr. Allerd has been a medical examiner for life insurance companies for twelve years, and will give an interesting series of lectures on what insurance examiners ought to know.

The Miami Valley Medical Association of Ohio met on October 13th and discussed the following programme: The Medical Society and Medical Progress, by Dr. B. H. Blair, of Lebanon; Fractures of the Neck of the Femur, by Dr. N. P. Dandridge, of Cincinnati; The Late Developments of Puerperal Eclampsia, by Dr. E. S. Stevens, of Lebanon. Dr. Hirshel Fisher, of Lebanon, and Dr. Brooks S. Beebe, of Cincinnati, also read papers. An old fashioned country dinner was served at noon.

No Diploma Necessary to Enter the Medical Corps of the Army or Navy.—It is said that no diploma is required from candidates for positions in the medical department of either the army or navy, nor any certificate that any prescribed number of sessions has been passed in study. The examinations are so severe that there is no possible chance of any one slipping through who has not been a diligent student for at least the usual four years' study. The army and navy being under the jurisdiction of the Federal Government, naturally the well-known State regulations do not hold.

Mean Swindlers in Boston.—Utilizing the favorable impression made on all classes by the good work of that excellent charity, the Boston floating hospital, during the past summer, self styled "solicitors" are approaching the charitably minded with a fictitious souvenir book which they allege is to be published in the interests of the hospital, the money to come from the advertising pages. The only place where contributions may be safely sent is 505 John Hancock building, 178 Devonshire Street, Boston, where they should be addressed to either Rufus B. Tobey, chairman, or to Charles G. Farwell, treasurer.

Medical Society of City Hospital Alumni, St. Louis.—The regular meeting was held Thursday, October 15, at 8 p. m. in the Board of Education building, Ninth and Locust Streets. The programme included the following papers: Diagnosis of Abdominal Cancer Before the Appearance of the Tumor, by Dr. Frank G. Nifong, and Report of Case of Nephropexy for the Relief of Floating Kidney with Diffuse Nephritis, by Dr. Robert F. Amyx.

Mortality of Michigan During September, 1903.—The total number of deaths reported to the secretary of State for the month of September was 2,722, or seventy-eight less than the number for the preceding month. The death rate was 13.4 per 1,000 population. By ages there were 682 deaths of infants under one year of age, 233 deaths of children aged one to four years, and 730 deaths of persons sixty-five years of age and over. Important causes of death were as follows: Tuberculosis of the lungs, 156; other forms of tuberculosis, twenty-eight; typhoid fever, seventy-four; diphtheria and croup, forty-two; scarlet fever, six; measles, two; whooping cough, twenty-two; pneumonia, eighty-eight; diarrhoea and enteritis, under two years, 408; cancer, 154; accidents and violence, 163. There was one death from small-pox during the month, which occurred in Sherman township, Iosco county. Typhoid fever increased somewhat in mortality, as is usual at this time of the year. The number of deaths for the month was less than the number reported for the corresponding month last year.

The Mississippi Valley Medical Association, at its recent meeting held at Memphis, October 7th, 8th, and 9th, adopted the following resolutions:

In view of the fact that more than 400 deaths from tetanus occurred following the Fourth of July celebration of 1903, as shown by the statistical report elaborated by Dr. S. C. Stanton, of Chicago, and published in the *Journal of the American Medical Association*, of August 29, 1903, the great majority of which might have been prevented had proper precautions been taken: therefore

Be it Resolved, That the conclusions which follow, as offered by Dr. Stanton in a paper presented before the association, at the above meeting, be endorsed as the sense of the association; and further

Be it Resolved, That the secretary be instructed to forward a copy of these resolutions and conclusions to the medical press, associated press, and the secretaries of the several State medical societies, with the request that they publish same and take suitable action thereon:

1. Enforcement of existing laws regarding the sale of toy pistols and other dangerous toys.

2. Enactment of laws by the nation, States and municipalities prohibiting the manufacture and sale of toy pistols, blank cartridges, dynamite canes and caps, cannon crackers, etc.

3. Open treatment of all wounds, however insignificant, in which from the nature or environment there is any risk of tetanus.

4. Immediate use of tetanus antitoxine in all cases of Fourth of July wounds, or wounds received in barnyards, gardens, or other places where tetanus infection is likely to occur.

5. As a forlorn hope, the injection of tetanus antitoxine after tetanus symptoms have appeared.

Pith of Current Literature.

BRITISH MEDICAL JOURNAL.

October 3, 1903.

1. Reverence and Hopefulness in Medicine,
By SIR D. DUCKWORTH.
2. The Relation of the Military Medical Service to the
Civil Profession, By V. W. LOW.
3. The Relation of Dental Hygiene to the General Hos-
pital, By W. HERN.
(Seventy-first Annual Meeting of the British Medical
Association.)

Section of Obstetrics and Gynecology.

4. Discussion on the Management of Pregnancy Compli-
cated with Uterine Fibroids,
By A. ROUTH, H. SMITH, and Others.
5. A Case of Persistence of the Urogenital Sinus,
By C. E. PURSLOW.
6. Some Remarks on the Maternal Circulation in Preg-
nancy, By H. O. NICHOLSON.
7. Clinical Study of Internal Hæmorrhage in Association
with Ectopic Pregnancy, By J. OLIVER.
8. Two Successful Cases of Cæsarean Section for Con-
tracted Pelvis in Dwarfs, By E. J. MACLEAN.
9. A Case of Hairpin in the Uterus Discovered by the X
Rays, By H. N. LEWERS.

Section of Psychology.

10. A Discussion on Alcohol in Relation to Mental Dis-
orders, By T. B. HYSLOP, G. A. REID, and Others.
11. Preliminary Note on the Action of Blood Serum from
Cases of Mental Disease on *Bacillus Coli Communis*,
By A. V. JOHNSON, and E. GOODALL.
12. On the Nature of Fragilitas Ossium in the Insane,
By W. M. SMITH.
13. On Some Slighter Forms of Mental Defect in Children
and Their Treatment, By G. E. SHUTTLEWORTH.
14. The Classification of Insanity, By C. MERCIER.
15. Discussion on the Cure and Treatment of Incipient In-
sanity, By D. YELLOWLEES, R. JONES, and Others.
16. Psycho Therapeutics, By A. D. SCHOFIELD.

1, 2, 3, are Introductory Addresses.

4. **Pregnancy and Fibroids.**—Routh deals with his subject as follows: I. Effect of pregnancy upon fibroids: (a) Fibroids tend to increase rapidly in size during pregnancy; it is not certain that this is due to actual hypertrophy rather than to œdema. (b) During involution of the uterus fibroids may atrophy; in some cases they disappear entirely. (c) Occasionally after labor a sub-mucous fibroid will degenerate and be extended without harm. Usually, however, necrosis of the fibroid occurs during the somewhat prolonged period of extension, and sapræmia or septicæmia may result. (d) Secondary infection of fibroids during the puerperium is not at all uncommon, and fatal peritonitis may result.

II. Effect of fibroids upon pregnancy: (a) Sterility and fibroids are frequently associated, but it is unsettled as to which is the cause, and which the result. (b) Fibroids probably do not predispose to abortion or premature labor. (c) Fœtal malpresentations are frequently caused by fibroids, breech presentations being especially common. (d) Delay in labor is common, due to irregular uterine action; postpartum hæmorrhage is also more frequent than in normal labor, due to placental adhesions. (e) The question as to

whether existing fibroids are likely to cause obstruction during labor, is a very serious one. Usually spontaneous elevation of the fibroid out of the pelvis takes place; this may even occur during labor. Obstruction is most common when the fibroid arises from the posterior part of the supravaginal cervix. If arising from the fundus or body, obstruction is rare. (f) The presence of fibroids retards involution of the uterus during the puerperium, but does not impair it.

Treatment—I. Before fœtal viability. Here attempts should be made to elevate the fibroid by digital or hydrostatic pressure in the Sims or knee-chest posture. Force is to be avoided. The induction of abortion, the universal treatment of thirty years ago, has been abandoned. Myomectomy is now the ideal indication for treatment when pressure symptoms develop before fœtal viability, but it can only be hopefully undertaken in a small number of cases. Hysterectomy is the procedure of last resort where there is real danger in allowing the patient to go to term, or where pressure symptoms are serious.

II. After fœtal viability. Here the indication is to leave things alone as long as the mother's life is not endangered. Reposition may be tried, but no attempt should be made to drag a child, living or dead, past an obstructing fibroid of any size. If the patient is in labor, and the obstructing fibroid shows no tendency to rise, or if it is fixed in the pelvis, an operation is inevitable, and, except in the case of a cervical fibroid, abdominal section is necessary, symphysiotomy being condemned. Cervical fibroids cannot be elevated, but in some cases they may be enucleated *per vaginam*.

III. After labor. Hysterectomy may be required in cases where labor has already taken place in fibroid uteri, for *post partum* hæmorrhage or uterine sepsis with infected fibroids.

6. **The Circulation in Pregnancy.**—Nicholson states that under normal conditions arterial tone is regulated by the vasomotor centre, and by the secretions of the thyroid and suprarenal glands. These two internal secretions have opposing and contradictory effects upon the circulation, and, in health, a balance is struck between them. In normal pregnancy, on the other hand, there are frequent periods during which one or the other gains the upper hand. In general, at the beginning of pregnancy, the functional activity of the thyroid is increased, with resulting dilatation of blood vessels, rapid pulse, palpitation, and stimulation of the metabolic processes of the body. Albuminuria is common among such patients, and is not of grave significance. Severe hæmorrhage during the third stage of labor frequently occurs. Other women, later in pregnancy, will show signs of suprarenal intoxication—contraction of arteries and arterioles, with cool, dry skin; decreased metabolism; slow, hard pulse and elevation of blood pressure, etc. Such patients have no tendency to hæmorrhage, but they are prone to develop eclampsia. Albuminuria is a danger sign. In such cases thyroid extract is indicated, as an ideal vasodilator.

10. **Alcohol and Insanity.**—Hyslop describes

the effect of alcohol upon nerve cells and upon the nervous system in general. Alcohol at first stimulates the activity of not one, but every neurone, and the resultant hypermnnesia, or exaltation of function both physical and mental, is general and far-reaching. Following that stimulation, however, comes exhaustion and retardation of the metabolism—amnesia. Drunkards are prone to various illusions of memory, termed paramnesic states. The author does not believe that alcohol alone is ever responsible for general paralysis. But alcohol does cause chronic renal disease and arterial degeneration, and this in turn causes a progressive cerebral degeneration. In due course complete dementia results, not unlike general paralysis of the insane. But he maintains that the two conditions are essentially distinct. He classifies cases of general paralysis as follows: (1) Parasyphilitic types; (2) types due to vascular changes dependent upon kidney or arterial changes due to alcohol; and (3) types due to sunstroke, malaria, etc. The second and third types may be termed pseudo-general paralytic types, and may run a totally different course from the first.

11. Serum-Agglutination in Insanity.—Johnson and Goodall have tested the agglutinative powers with reference to the *Bacillus coli communis*, of the serum of insane persons. Their object was to test the correctness of the hypothesis that many cases of mental disorder are due to the toxic effects of that bacillus. They examined the blood of twenty-five cases of all forms of insanity, and found that good agglutination was present in 28 per cent., partial in 32 per cent. They also made leucocyte counts, and found that the leucocytosis was greater when the patients were passing through acute stages of their respective affections.

12. Fragilitas Ossium.—Smith has studied the occurrence of fragilitas ossium in the insane and finds that: (1) The condition is most common in dementia and chronic melancholia; general paralysis does not present the change so markedly. (2) The disease is much more frequent in the female sex, among whom it occurs earlier than in men. (3) It is comparatively rare before the ages of forty-five or fifty, except in general paralysis. (4) It is essentially a morbid change which occurs in late middle life and old age. (5) It is not a marked pathological condition in men suffering from general paralysis. (6) It is seldom present in epilepsy. The chronic degenerations of nerve cells must interfere with the physiological processes of bone formation and absorption, by removing the trophic influences. The minerals are carried away quicker than they are deposited, the parts nearest the blood stream—the Haversian spaces—being first affected. The dense bone is permeated by porosities, and finally, fracture occurs. The absence of pain on fracture supports the view that the process is dependent upon changes in the sensory tracts.

13. Mental Defects in Children.—Shuttleworth describes some of the less obvious forms of mental abnormality in the young, and shows that, though slight, they nevertheless call for careful

diagnosis and judicious treatment, to prevent their passing into graver forms of mental disorder. Among the defects discussed are genital erethism (masturbation), neurotic obsessions, hysterical analgesia and aphasia, and the various "phobias"—such as cynophobia (fear of dogs), mysophobia (fear of dirt), etc.

LANCET.

October 3, 1903.

1. Reverence and Hopefulness in Medicine,
By SIR D. DUCKWORTH.
2. The Surgical Treatment of Intestinal Perforation in Typhoid Fever,
By D. ARMOUR.
3. Notes on Five Cases of Abdominal Section for Emergencies During Pregnancy,
By A. E. MORISON.
4. The Circulation of Tissue Fluid in Man (Preliminary Communication),
By G. OLIVER.
5. Infant Feeding,
By G. F. MCCLEARY.
6. The Immunization of Animals to the *Bacillus Typhosus*,
By W. V. SHAW.
7. A Case of Pyopericardium Following Puerperal Sepsis; Paracentesis; Excision of Rib and Drainage,
By A. HALL.
8. Five Illustrative Cases of Congenital Heart Disease,
By J. M. COWAN, and A. R. FERGUSON.

2. Perforation in Typhoid.—Armour begins his article with a résumé of the published statistics of the surgical treatment of typhoid perforation. Under modern methods of treatment and good nursing the percentage of perforation in typhoid fever ranges from one to five. It occurs much more often in men than in women, and is very rare in children. Over one third of the cases occur between the ages of twenty and thirty years. It may occur at any period during an attack or during a relapse. The longest reported time was during a second relapse in the fourth month. The shortest was on the fourth day. The third week of the disease is by far the most frequent time during which perforation takes place. It is almost always in the ileum, but may occur in the cæcum, the colon, or the appendix. It is usually single, but may be double. The aperture is sometimes very small and rounded, but may be linear if due to laceration. It is usually at the bottom of a small deep ulcer. If in a Peyer's patch it may be very large and involve half the circumference of the bowel. The opening may be shreddy or clean cut, and very frequently there is a fairly wide area around the ulcer in which the intestinal wall has been greatly thinned. There is no pathognomonic sign of perforation, nor is there any definite relation between perforation and the severity of the attack. The symptoms may be gradual in onset or appear suddenly. In the majority of the cases distinct warning symptoms antedate equally distinct and severe diagnostic symptoms. Those most often complained of are abdominal pain and tenderness, either localized or general. A steadily rising leucocytosis and localized muscular spasm and tenderness accompanying the pain, are signs of the utmost diagnostic importance. Vomiting is not always present. A rapid fall of temperature occurs in some cases; in others the temperature rises. The pulse is small and rapid and the respirations frequent, shallow, and of the costal type.

Rigor is uncommon. As hæmorrhage is due to extensive ulceration of the intestinal wall, and, since this may mean proximity to the peritoneal coat of the intestine, it should be regarded, as a danger signal of perforation, especially if accompanied by acute pain. The most constant symptoms, however, of intestinal perforation in typhoid fever are sudden abdominal pain, increasing in intensity and recurring in paroxysms, general tenderness and rigidity with distention, a rapid, feeble pulse, with signs of collapse, and the appearance of leucocytosis. The presence of leucocytosis, is a valuable sign, but if a general septic peritonitis follows the perforation, it may be transitory. To be of value, systematic and periodical blood examinations should be made throughout every case of typhoid fever. Appendicitis and intestinal obstruction are the affections for which perforation is most frequently mistaken.

The prognosis of the operative treatment of perforation depends on whether operation is undertaken for the perforation itself, or for general peritonitis following perforation. In the latter case the prognosis is invariably bad. But where operation is performed within twenty-four hours of the perforation, recovery takes place in twenty-four per cent. of the cases. Between fifteen and twenty-five years is the most unfavorable age at which to operate, whilst the most favorable are over twenty-five years and especially under fifteen years. Women more often recover than men. In cases of suspected perforation in which it is impossible to arrive at a diagnosis any other way, a small exploratory incision, preferably under local anæsthesia, should be made. Opium should be used only *after* the diagnosis has been made and operation decided for or against. The operation consists of three sequential steps: (1) The finding and closing of the perforation; (2) the emptying and cleansing of the peritoneal cavity; and (3) the establishment and maintenance of proper drainage. Two points should be remembered—to look for more than one perforation, and to examine the appendix. Operation should be done at the earliest moment—shock is no contraindication—and as rapidly as possible, with due regard to thoroughness.

4. Lymph Circulation.—Oliver's conclusions, based on his observations, are as follows: (1) The amount of tissue lymph varies at different times of the day and each variation is of short duration. (2) The ingestion of food produces a rapid flow of lymph into the tissue spaces, acquiring its maximum an hour after meals and disappearing slowly. (3) The digestive curve of variation always follows the same general type, with a rapid rise, short acme, and a gradual subsidence. (4) As the digestive lymph wave develops, there is a rise in the percentages of the corpuscles, of the hæmoglobin, and of the specific gravity of the blood; i. e., the blood becomes more concentrated. The average rise of the corpuscles and hæmoglobin is fifteen per cent., of the specific gravity $7\frac{1}{2}^{\circ}$. (5) As the digestive wave declines there is a corresponding fall in the percentages of the corpuscles, hæmoglobin, and specific gravity of the blood. (6) The interchange of fluid between the blood and tissues measured: fifteen per cent. of the vol-

ume of the plasma flows into the areolar spaces during the maximum of each lymph wave. (7) There is a complete agreement between the blood pressure and the exudation of lymph. (8) The rate of effusion of the lymph is rapid; fresh lymph is formed in fifteen seconds. (9) Lymph is disposed of in two ways—by absorption into the capillaries, and by transmission along the lymphatics. (10) The to-and-fro transfers of fluid from the capillary to the lymph spaces constitute a circulation sufficient for the requirements of metabolism. This may be termed the "intermediary circulation." (11) This intermediary circulation provides the mechanism for the supply of pabulum to the tissues and for the removal of soluble waste products. The lymph wave after a meal insures the immediate supply of pabulum from the food. Beverages (tea, coffee, and alcohol) act by inciting a flow of lymph into the tissues. But they fail to restore to the blood the outflow of pabulum which they create. They are, therefore, but temporary expedients.

According to the author's observations the continuous presence of a large quantity of tissue lymph provides an important condition for the development of the local manifestations of gout.

5. Infant Feeding.—McCleary concludes that: (1) mother's milk is infinitely the best infant food and every effort should be made to encourage breast feeding; and (2) cow's milk is the best substitute for mother's milk, but it should be carefully modified to suit the infant's digestive capacity, be free from chemical preservatives and as far as possible from bacteria, and in the poorer districts it should be supplied in such a form as to reduce the possibility of its contamination in the home to a minimum. He describes the working of an infant's food dépôt which has been established in Battersea, and excellent results obtained thereat. The mortality of infants in the borough during the last six months of 1902 was 87.5 per cent. higher than the mortality in the dépôt-fed children. Yet the latter were almost all ill when first seen, were all artificially fed, were usually under six months of age, and finally a large proportion of them were illegitimate.

6. Typhoid Immunization.—Shaw reaches the following conclusions as a result of his experiments: (1) The best method of obtaining a typhoid toxine is by the digestion of the bacilli. (2) This product is toxic. (3) This product can excite a reaction in susceptible animals, during which they develop immunity to the injection of living typhoid bacilli; and the serum from such an animal can protect another animal against typhoid infection. (4) The injection, intravenously, of living typhoid bacilli may result in the production of a "negative phase" of resistance.

PRESSE MEDICALE.

September 16, 1903.

1. Streptococcic Glossitis and Stomatitis Observed in Madagascar, By FONTOYNONT, and JOURDRAN.
2. Actinomycosis Study of the Ray-Fungus. Its Morphology and Reactions in the Tissues, By LOUIS DOR.
3. Death, and Accidents Caused by the Trendelenburg Position in Abdominal Surgery, By F. JAYLE.
4. Actinomycotic Panaris of the Right Ring Finger, By L. THÉVENOT.

1. **Glossitis and Stomatitis.**—Fontoynt and Jourdan describe the Madagascar form as an exfoliation of the mucous membrane of the tongue and cheeks, endemic, sometimes epidemic, till sometimes the tongue is completely divested and looks like the scarlatina tongue. The submaxillary gland is always enlarged. There is little or no fever on constitutional involvement. Bacteriological examination gives pure streptococci. Potassium chlorate does not affect it, but constant rinsing of the mouth with solutions of potassium permanganate, boric acid, and carbolic acid usually cures in about two weeks.

3. **Death from Trendelenburg's Posture.**—Jayle says death may result from this posture alone, especially in obese and cardiac subjects. The right heart is overworked by the surplus of venous blood, and congestion of the lungs is likely to supervene. It is especially dangerous in sufferers from ascites, and has also the disadvantage of emptying the pelvic veins, leading to the belief that hæmostasis is perfect when it is not so. If the abdominal parietes are sutured during the posture, a fatal amount of air may be imprisoned in the abdominal cavity, subsequently leaking out to constitute a subcutaneous emphysema, which is, at least, very painful. To prevent this accident, the patient should be in the horizontal posture before suturing, and the iliac fossæ should be deeply compressed. Other disadvantages are the flowing of pelvic pus toward the upper abdomen and temporary paralysis of the lower limbs or, if shoulder rests are used, possible paralysis of the upper limb.

4. **Actinomycosis of a Finger.**—Thévenot's case was in a carpenter, sixty-six years of age, who wounded his finger with a splinter, suppuration followed, the wound was incised, and apparently healed. Two weeks later, the finger began to swell and presented again signs of suppuration. On incision, however, no pus escaped, and a curette was required to remove the cheesy matter found. The microscope determined the diagnosis. Actinomycosis of a finger may simulate epithelioma, or a tuberculous or syphilitic ulcer, or even lupus. The affection has been too rare to allow sound diagnosis without bacteriological examination. Thévenot, besides aseptic treatment of the wound, gives potassium iodide internally.

LYON MEDICAL.

September 20, 1903.

1. Value of Linear Electrolysis in the Treatment of Stricture of the Urethra, By RAFIN.
2. Hot Baths in Running Water at Châtel-Guyon, By BOIS.

1. **Linear Electrolysis in Urethral Stricture.**—Rafin says his conclusions are the unbiased result of his own clinical experience. He details four cases to show that linear electrolysis does not result always in a radical cure; gives statistics to show that it is not less dangerous than internal urethrotomy; proves that it is not always possible to introduce the electrical apparatus; states that the operation must be often supplemented by other measures, even external urethrotomy; has found that it was necessary frequently to complete the urethral dilatation by other means after

operation; and that catheterism is always obligatory after operating, either to complete dilatation or to maintain what has already been accomplished.

2. **The Châtel-Guyon Waters.**—Bois says these waters have a remarkable action on the digestive tract, but should be taken at their natural temperature. When nervous complications of a digestive disturbance exist, baths should be taken in the waters, lasting not more than twenty minutes. The alkalies in solution clean the skin, allowing the sudoriparous glands to act, and the carbonic acid stimulates the surface. Intraorganic oxidations are thus whipped up, and the warmth is sedative. Such baths are superior to the cold and even to the warm douche.

SEMAINE MEDICALE

September 30, 1903.

1. On the Origin of Malignant Neoplasms, By F. DE QUERVAIN.

1. **Malignant Neoplasms.**—De Quervain's intention is to complete the work begun by de Bovis in 1902 in determining whether the increase of cancer and its predilection for the female sex are real or apparent. Ætiologically, carcinoma and sarcoma cannot be considered apart. The separation of cells is the pathognomonic characteristic of malignancy; do they separate on account of malignancy, or is the separation the cause of malignancy? The best opinion considers that malignity is due to a biological transformation of the cells and that the separation is due to this alteration. This theory, however, seems to consider the cells as endowed from the first with malignant properties and as acting like wild beasts escaped from their cage. But such cells, transplanted into the lower animals do not cause a malignant growth. It is a pity we do not see cancers earlier, as the study of their borders does not exactly replace that of their actual birth. In weighing the evidence, however, we may admit the primitive alteration of those cells which subsequently become neoplastic. As to the theory that the malignant cells are embryonic in nature, and so act in an "anarchistic" manner, it is combated by hypotheses that they belong to an alien race or that they are merely degenerated cells. These suppositions rest on a mere external and anatomical resemblance and not on a biological origin. As to whether neoplasms grow by gradual transformation of neighboring tissues, by the proliferation of their own elements, or by a neoplastic transformation of the tissues whence they emanate, or whether they grow exclusively by the aid of their elements, in cancer of the skin it is generally admitted that growth is by proliferation of cells already cancerous and also by the repetition of malignant degeneration of healthy epithelial tissue at the margin of the growth. The simultaneous growth of several malignant neoplasms in different parts of the body presents a difficulty, but the foregoing theory seems plausible even if it does lead to a belief in the parasitic origin of cancer. De Quervain gives a history of the lively row over the latter theory. The backers of the parasitic theory are divided as to the exact nature of the parasite, even as to whether

it is animal or vegetable. Traumatism is favored as a cause on account of the predilection shown by cancer for points exposed to accident or physiologically active (the breast of woman). Clinical analogy between cancer and inflammatory infections is most incomplete, and does not agree with the data of pathological anatomy. Benign neoplasms cannot be said to be of parasitic origin, as many of them are congenital and should be classed with deformities. The parasitic theory, as a matter of fact, instead of smoothing down difficulties, only succeeds in raising a number of others; investigation will go on along both roads. We must find if the "cancer juice" will produce cancer without the transplantation of cancer cells; and above all, investigation must continue without the extraordinary and unscientific prejudice that has hitherto accompanied it.

MUENCHENER MEDIZINISCHE WOCHENSCHRIFT.

September 8, 1903.

1. Digestion of Sugar After Extirpation of the Pancreas,
By LÜTHJE.
2. Influence of Concentrated Urine Upon Tests for Albumin,
By B. HALLAUER.
3. Gaseous Gangrene,
By DANSAUER.
4. Two Cases of Chronic Zonary Skin Diseases,
By F. LOMMEL.
5. Two Cases of Disease of the Pons,
By H. STEINERT.
6. Case of Pentosuria,
By E. BENDIX.
7. Diagnosis and Treatment of Diphtheria,
By CURTIUS.
8. Acetone Poisoning After the Application of a Celluloid-mull Bandage,
By COSSMANN.
9. Intestinal Origin of Tuberculosis,
By L. SORGER.

1. **Digestion of Sugar After Removal of the Pancreas.**—Lüthje has experimented on dogs and removed every vestige of the pancreas, including even the duodenum. Even after this operation, the animal did not entirely lose the power of digesting sugar, especially after he had been placed upon starvation diet.

2. **Concentrated Urine and Albumin Tests.**—Hallauer establishes the fact that strong concentration of albuminous urine inhibits positive tests for albumin. He suggests that in such instances, the urine should be diluted with water before making the tests.

3. **Gas Gangrene.**—Dansauer reports a case of gaseous gangrene in a non-diabetic person, in which the *Bacterium coli* was the sole agent isolated. This germ cannot, however, produce gaseous gangrene alone; its action is then entirely saprophytic and is dependent upon other pathogenic organisms, or upon local or general nutritional disturbances, such as trauma and metabolic diseases.

4. **Chronic Zonary Disease of the Skin.**—Lommel reports a case of chronic disease affecting the skin of the arm, resembling lichen ruber, in which the only area involved was that represented by the seventh cervical segment. In the second case there was a sharply limited scleroderma confined to the skin of the forehead.

8. **Acetone Poisoning.**—Cossmann records the case of a boy who had a celluloid-mull bandage applied directly to the body. Soon after he

went into a severe coma with all the appearances of a diabetic coma. Acetone was found in the urine. In forty-eight hours, the boy was again entirely well.

BERLINER KLINISCHE WOCHENSCHRIFT.

September 14, 1903.

1. Fever and Excretion of Sugar, By P. F. RICHTER.
2. Pathogenesis of Pulmonary Tuberculosis,
By F. WELEMINSKY.
3. Nasal Dysmenorrhœa, By E. OPITZ.
4. Poison Components of Diphtheria Toxine (*Concluded*),
By P. EHRLICH.
5. Treatment of the Nose and Ear by Hot Air,
By WARNECKE.

2. **Pulmonary Tuberculosis.**—Weleminsky has made experiments to determine how pulmonary tuberculosis could arise by way of the food. In some of the rabbits, he found that the lungs only were attacked after the administration of food containing tubercle bacilli, while in another group, the intestines also became tuberculous. In guinea pigs, the intestines and lungs were both affected, the latter demonstrably in a primary form. The author thinks that the route of infection lies through the submaxillary glands to the bronchial glands and thence directly to the lungs.

3. **Nasal Dysmenorrhœa.**—Opitz discusses the element of suggestion in the cocainization of the genital tubercles of the nose in cases of dysmenorrhœa, and reports a case of a young woman who suffered intensely at her menstrual periods and who had a hypertrophy of the middle turbinated bone. This was resected, and since the time of the operation, the patient has been free from menstrual pain. The author regards this case as entirely free from suggestive influence.

4. **Diphtheria Toxines.**—Ehrlich believes that the diphtheria bacillus is capable of producing various forms of poisons, especially toxines and toxones. The variations found in experimental work he regards as due to the mixture of various substances of toxoid character in the bouillon.

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

September 18, 1903.

1. Physiology and Pharmacodynamics of Silicic Acid,
By H. SCHULZ.
2. Typhoid Bacilli in Milk and Its By-products,
By R. BASSENCE.
3. Methods of Spreading of Diphtheria,
By K. E. BUSING.
4. Treatment of Trachoma with Knapp's Expression Forceps,
By J. HOPPE.
5. Ammoniacal Reaction of the Urine in Phosphaturia, Ammoniuria, and Phosphaturia, as Objective Symptoms in Neurasthenia,
By A. FREUDENBERG.

1. **On Silicic Acid.**—Schulz has found silicic acid to be an integral part of connective tissue; it is more abundant in the young than in the old, and is to be found in abundance in Wharton's jelly. It probably exists in epithelial cells as well. When silicic acid was given to young, healthy men, it produced headache, vertigo, lassitude, tremor, acne, and furuncles. There was also noted increased sweating, falling out of the hair, intestinal disturbances, tenesmus, pain in the joints, and a sense of weight in the extremities.

4. **Knapp's Forceps in Trachoma.**—Hoppe regards expression as the ideal method of treating trachoma. Among the advantages are the rapid result, the ease of technics, the lack of danger, the avoidance of assistants and of general anæsthesia, and the possibility of ambulant treatment. The Knapp forceps is not suitable for every case, but is indicated wherever follicles can be squeezed out. The process of expression must be repeated as long as follicles remain to be squeezed out.

VIRCHOW'S ARCHIV.

September 1, 1903.

1. Diverticula of the Œsophagus, Their Anatomy and Pathogenesis, By GEORG RIEBOLD.
2. Changes in the Spinal Ganglion Cells After Separation of the Peripheral Nerves and the Posterior Roots, By KARL KLEIST.
3. Morphological and Staining Changes in Necrobiotic Blood Cells, By KARL BODON.
4. Splenic Leucæmia in a Calf, By D. A. DE JONG.
5. The Adrenals in Congenital Syphilis, By N. GULEKE.
6. On Myelomata, By S. SALTYSKOW.
7. Struma Ovarii Colloides, By ROBERT MEYER.
8. Rupture of the Gallbladder with Fatal Hæmorrhage, By B. HUGUENIN.
9. Agenesis of the Spleen, By CARL STERNBERG.
10. Recurrence of Smallpox, By WILHELM EBSTEIN.

1. **Œsophageal Diverticula.**—Riebold has examined in serial section thirty-five cases of traction diverticula of the Œsophagus and has shown that in the vast majority of instances, there is a chronic inflammation of the neighboring lymph glands. He found in some specimens pure anthracosis, chalicosis, and siderosis and in some instances anthracosis combined with tuberculosis. Chronic tuberculosis could be demonstrated in but three cases. Riebold also found that the Œsophageal muscles always curved around the diverticulum and did not cease to exist at the edge of the diverticulum as Ribbert insisted. The author does not believe any of the cases to be congenital.

3. **Changes in Necrobiotic Blood Cells.**—Bodon states as a result of his studies that in necrobiotic processes the large uninuclear leucocytes are the first to disappear, next in order are the large lymphocytes and the multinuclear leucocytes, and finally the small lymphocytes and the erythrocytes.

4. **Splenic Leucæmia in a Calf.**—De Jong reports a splenic leucæmia in a calf five weeks old. The spleen was enormously enlarged, weighing more than that of an adult ox. The leucocytes were increased, numbering about 30,000. The bone marrow was unchanged, so the author regards the case as one of splenic origin, probably congenital.

5. **Adrenals in Congenital Syphilis.**—Guleke records an autopsy on a two-days old syphilitic child. There was a gummatous hepatitis and an intersitil splenitis. The adrenals showed miliary gummata and larger wedge-shaped and oval necrotic foci, but no cheesy degeneration was found. The author thinks the necrosis bears a relation to the syphilis, as he has seen it in three other cases

and has never observed it in fifteen other autopsies on non-syphilitic children.

9. **Agenesis of the Spleen.**—Sternberg narrates the case of a woman seventy-three years of age in whom the spleen was entirely absent, nor could evidences of an accessory spleen be found. The vascular supply seemed to be normal, but in place of the splenic artery there was but a small branch which passed to the pancreas and which gave off minute branches to the omentum. As the patient reached an advanced age, it would appear that the spleen is not a vital organ and that its hæmatopoietic function is a minimal one.

ZENTRALBLATT FUER CHIRURGIE

September 12, 1903.

1. Modification of Maydl's Operation for Congenital Ectopion of the Bladder, By J. BORELIUS.
2. Technics of the Radical Operation for Femoral Hernia, By P. HERZEN.

1. **Ectopion of the Bladder.**—Borelius emphasizes the ease and importance of establishing a lateral anastomosis between the bladder and the root of the sigmoid flexure before beginning Maydl's operation for congenital ectopion of the bladder.

2. **Femoral Hernia.**—Herzen describes an operation intended close the femoral canal partly through periosteum taken from the upper part of the pubis, partly by means of bronze-aluminum wire sutures which firmly connect Poupart's ligament with the pubis which is previously perforated.

ZENTRALBLATT FUER GYNÆKOLOGIE.

September 12, 1903.

1. A Modified Tarnier's Axis-Traction Forceps, By RICHARD FREUND.
2. So-called White Infarcts of the Placenta, By G. SCHICKELE.
3. Histogenesis of Chorioepithelioma, By L. PICK.

1. **Tarnier's Axis-Traction Forceps.**—Freund has found the heavy handles of the Tarnier axis-traction forceps an impediment to perfect work, as they sink through gravity and are apt to dislodge the forceps from the side of the head. He has devised a modification of the instrument in which the handles can be removed and the forceps proper are made as light as possible.

2. **White Placental Infarcts.**—Schickele concludes that the so-called "white infarcts" found in the placenta are due to disturbances of circulation in the intervillous placental spaces. The organization of the stagnant mass of blood follows with secondary involvement of the immediate neighborhood. Schickele thinks these infarcts should be called "fibrin masses."

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE

July 5, 1903.

1. The Action of the Nucleoproteids of Heterogeneous Blood Upon the Number and Proportion of the White Cells, By GUIDO GUERIN.
2. The Sputum as a Culture Medium for the Bacillus of Tuberculosis, By G. GUYOT.
3. The Theory of Surgical Deviation of the Bloodcurrent in the Portal Circle, By N. AIEVOLI.

4. Contribution to the Radical Cure of Hydrocele by Lorgnet's Method, By GAETANO VISCARDI.

5. Craniectomy for Severe Injuries, By E. BRACCHI.

2. **Sputum as Culture Medium in Tuberculosis.**—Guyot has studied the ways in which the human sputum may be utilized in growing tubercle bacilli, and finds that a very efficient culture medium can be prepared from sputum in a simple manner. He selected some sputum freshly expectorated, digested it on a water bath until it became homogeneous, i. e., for about eight hours, filtered it through a bacterial filter, added a small amount of sterile water if it was too thick, sterilized the filtrate for three quarters of an hour in the autoclave, and filtered again when cold. Thus a very good nutrient medium was obtained, which could be solidified by the addition of only one per cent. of agar, and which offered a favorable ground for the growth of Koch's bacillus. Homogenous cultures not inferior to those obtained by the method of Arloing and Courmont were easily obtained with this medium.

4. **Lorgnet's Method of Radical Cure for Hydrocele.**—Viscardi describes a case of hydrocele treated successfully by Lorgnet's method, which he recommends, especially in country practice, as very easy of execution and not requiring much time, while the cure is radical. Under local anæsthesia, the scrotum is incised, and the vaginal tunic is opened. The fluid is allowed to escape, and the testis drawn forward out of the tunic. The wound in the tunic is sutured, being careful to avoid wounding the testis and compressing the cord. The testis is then lodged in the loose cellular tissue of the scrotum, and the scrotal pouch is closed. The patient can go about his work within five days, provided the asepsis is perfect.

ROUSSKY VRATCH.

July 26, 1903.

1. Clinical Observations on the Course of Diabetic Coma,

By V. F. ORLOVSKY.

2. On Typhoid Suppuration in Ovarian Cysts,

By P. B. ZANTCHENKO.

3. A Case of Traumatic Hydronephrosis,

By I. I. RABOFF.

4. On the Radical Cure of Varicose Veins of the Lower Extremities by the Method of Troyánoff-Trendelenburg (*To be continued*), By P. S. TONTCHINSKY.

1. **Diabetic Coma.**—Orlovsky has studied three cases of diabetic coma with reference to the relation of the urine to the symptoms. He concludes that the amount of urine may be considerably lowered in diabetic coma in spite of the large quantity of fluids introduced in the form of enemata, and of subcutaneous injections of salt solution. The specific gravity of the urine is but slightly lowered. The amount of sugar in the urine during diabetic coma may be considerably diminished, even to one fifth or one ninth of that excreted before coma. Diabetic coma with typical air hunger may develop, even in such diabetics as have no longer dextrose in the urine, and the sugar may not appear in the urine during the coma in such cases, as in one case reported by him, but, so far as he knows, it is the only one of its kind in literature. The disappearance of sugar from the urine of one patient during the last days

of life may have been due to the emaciation, which, in the severe form of diabetes, is accompanied by a noteworthy diminution in the amount of sugar, or even by its total disappearance from deficient nutrition. In such cases the diabetic character of the coma is known only if the patient has been seen before the sugar has disappeared. In two of his cases, the respiration, contrary to Naunyn's statement, diminished somewhat in frequency, being about 35.

2. **Typhoid Infection in Ovarian Cyst.**—Zantchenko reports a case of pseudomucinous cystoma of the ovary in which the cyst was infected by the typhoid bacillus, the germ having entered eight months previously and caused an abscess in the cavity of the cyst. The pus contained Eberth's bacillus, probably a purely typhoid infection, although the possibility that the typhoid bacillus can produce such an infection without the aid of secondary bacteria is doubtful. There are only three cases of typhoid infection of ovarian cysts on record, and in these the cysts were dermoid; so that this case stands alone as one of typhoid infection of a pseudomucous ovarian cyst.

3. **Traumatic Hydronephrosis.**—Riáboff reports the case of a boy, aged twelve years, who developed a hydronephrosis from a kick by a horse. Nephrotomy and thorough drainage, after the removal of a mass of fibrinous and clotted substance from the hydronephrotic cavity, was followed by complete recovery. The cause was undoubtedly clogging of the ureteral orifice by blood clots which had accumulated within the pelvis of the kidney after the injury. This form of hydronephrosis is very rare.

BOSTON MEDICAL AND SURGICAL JOURNAL.

October 15, 1903.

1. Parasyphilitic Affections or Remote Effects of Syphilis,

By ABNER POST.

2. Some Observations Upon Blood Pressure in the Insane,

By WILLIAM RUSH DUNTON, JR.

3. The Formation of Loose Cartilages in the Knee Joint,

By E. A. CODMAN.

1. **Parasyphilitic Affections.**—Post's paper is practically a condensation of Fournier's book. Some material from other sources has, however, been incorporated in the article which will be found a very satisfactory exposition of the theory of parasyphilitic affections.

2. **Blood Pressure in the Insane.**—Dunton carried out his observations with a home-made Riva-Rocci instrument. His conclusions are: (1) The findings of other writers that (a) the blood pressure is increased in depressive states and decreased in excited states; and (b) the motor condition has a greater influence on the blood pressure than does the mental condition, have been confirmed. (2) A moist skin has no special influence upon the blood pressure, although active perspiration may. (3) There is no constant daily variation, as has been noted by Schaeffer and others.

3. **Loose Cartilages in the Knee Joint.**—Codman confines his remarks to the so-called "joint mice." There are three theories to account for

the origin of these bodies: (1) The nucleus is supposed to be a clot of fibrin, a bit of torn fringe, or a fragment of semilunar cartilage. (2) Such bodies are originally osteophytic growths on the lips of the articular surfaces, and become mice by being broken off. (3) They are actual bits of articular cartilage set free by traumatism. The author considers that this latter theory is the correct one in the vast majority of cases. From a number of experiments by him upon the cadaver and from observations made at operation, he has arrived at this conclusion.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

October 10, 1903.

1. The Evil of Eponyms. Chairman's Address Before the Section on Laryngology and Otology,
By GEORGE L. RICHARDS.
2. The Field of the Section on Hygiene and Sanitary Science. Chairman's Address Before the Section on Hygiene and Sanitary Science,
By HENRY M. BRACKEN.
3. Appendicitis from the Standpoint of the Gynecologist,
By HENRY P. NEWMAN.
4. The Development of the Fusion Centre in the Treatment of Strabismus,
By NELSON MILES BLACK.
5. Stereoscopic Exercises. With a Series of Pictures. To be Used in Amblyopia and Squint,
By ALBERT B. HALE.
6. A Deviation from the Usual Methods of Closing Abdominal Wounds, Including Hernia,
By O. O. WITHERBEE.
7. Scarlet Fever,
By WILLIAM L. BAUM.
8. The Purification of Water Supplies by Slow Sand Filtration (*Continued*).

3. **Appendicitis.**—Newman, looking at appendicitis from the standpoint of the gynecologist, summarizes his views in eleven formal conclusions of which we give the five following: (1) The abdomen should be examined in all important pelvic cases and vice versa. (2) If the abdomen is opened for pelvic disease the appendix should always be examined. (3) If the appendix is found to be catarrhal or adherent, or if it contains concretions, it should be removed. The advisability of purely prophylactic appendectomies is a question to be left to the judgment of the individual surgeon. (4) When the abdomen is opened for the relief of intestinal obstruction, one must determine whether the appendix or pelvic viscera have been the cause of the trouble. (5) If the appendix must be removed the invaginating operation is the one to be preferred.

4. **The Treatment of Strabismus.**—Black considers that the essential aetiological factor in the causation of strabismus is defective development of the fusion centre. The author is therefore a believer in Worth's theory. The treatment recommended by the author is based upon the development of the fusion centre by means of the amblyoscope. Operative intervention should be relegated to its proper place, which is that of producing parallelism of the visual axes after the fusion centre has been sufficiently restored to maintain binocular single vision by the use of the stereoscope, and after no noticeable diminution in the degree of deviation results from a contin-

uance of the treatment. The best results from this form of treatment are to be expected when the cases are seen early; in children under ten years of age the results are usually gratifying. The author describes the instruments required for this form of treatment and gives some statistics of the cases treated by him during the past year.

5. **Stereoscopic Exercises.**—Hale has devised and had published a series of pictures to be used with a stereoscope in the treatment of amblyopia and squint. The author does not believe that squint can of itself be corrected or in many cases even improved by stereoscopic exercises alone; the classical treatment by correction of the refractive error, and when necessary by operation, cannot be displaced by the stereoscope. Yet the author has obtained such satisfactory results from the employment of stereoscopic exercises that he deems the method of much value.

6. **A New Method of Closing Abdominal Wounds.**—Witherbee has devised a method of closing abdominal wounds, by which buried sutures are avoided, notwithstanding the fact that the tissues are united by layers. The article is illustrated, thereby simplifying the description of the method. The author claims a number of advantages for his method, and asserts that it has practically no drawbacks. The sutures are introduced as follows: (1) The peritonæum is approximated with a silkworm gut suture, introduced in the same manner as an ordinary subcuticular suture, whose two ends are brought through the integument near the extremities of the incision. This permits the removal of the suture at any time. (2) The abdominal fasciæ are united by figure-of-eight sutures, the ends of which, instead of emerging near the margins of the wound, are carried by long Hagedorn needles through the adipose tissue, and emerge on a line parallel to the abdominal incision and from one and one half to two inches either side of it. A U-shaped metal plate is now laid about the wound and the sutures drawn taut and tied, two and two, about notches in its sides. (3) The skin incision is united by a subcuticular suture. All sutures are of silkworm gut. It will be noted that as all the sutures emerge through the skin they can all be removed. The author also describes a method of suturing, with the aid of plates, for use in plastic work where it is desirable to avoid tension and the strangulation of the tissues in grasp of the sutures.

AMERICAN MEDICINE

October 10, 1903.

1. Construction of the Proteid Molecule,
By B. H. BUXTON.
2. The Role of Local Sanatoriums in Preventing the Spread of Tuberculosis,
By DeLANCEY ROCHESTER.
3. Pyloric Carcinoma with Symptoms Resembling Gastrocolic Fistula,
By DAVID L. EDSALL, and CHARLES A. FIFE.
4. Insanity as a Sequel to Physical Conditions,
By A. B. RICHARDSON.
5. Case of Enlarged Pedunculated Middle Lobe of the Prostate, Suprapubic Prostatectomy, Recovery; Followed by Epididymitis, Appendicitis, General Peri-

tonitis, Recovery Without Operation; Universal Eczema and Finally Cholelithiasis,

By MOSES BEHREND.

6. Some Observations on Trachoma,

By A. A. RIPPERGER.

7. Eyestrain and Civilization,

By GEORGE M. GOULD.

3. **Gastrocolic Fistula.**—Edsall and Fife report a case of pyloric carcinoma that resembled clinically a case complicated by gastrocolic fistula. Autopsy showed there was no fistula. The case was an instance of that rare condition (only one other case has so far been reported) of fæculent vomiting in gastric cancer, without any communication between the stomach and intestine or any obstruction of the intestine. The condition of gastrocolic fistula is fairly rare, though important, and since it is but scantily referred to in treatises on diseases of the digestive tract the present paper will be found to be of much value. The clinical characteristics of the condition are varied. The cases are divided clinically into three classes: (1) The latent cases, which exhibit no evidence of the presence of the fistula, and which are of interest only from a pathological standpoint and need not be further mentioned here; (2) the cases in which there is fæcal or fæculent vomiting, usually with other notable signs of the condition; and (3) the cases in which there is no fæcal or fæculent vomiting, but in which there are other signs that at least suggest the existence of a fistula or may make a definite diagnosis possible. The cases with fæcal or fæculent vomiting are, of course, the most striking, and are more likely than the others to be correctly diagnosed; though under some circumstances, they are also extremely likely to cause grave errors in the diagnosis. The vomiting comes on quite suddenly; and the pronouncedly fæcal or fæculent character of the vomited matter is shown at once—not gradually, as in acute peritonitis or intestinal occlusion. The vomited matter is usually brownish; it resembles the ordinary contents of the large intestine; and at times it consists of well-formed fæces, *i. e.*, it is not simply fæculent. Gastrocolic fistula is indeed apparently the only condition in which actual formed fæces are ever vomited. With the fæcal vomiting, there is often a persistent fæcal odor to the breath. Finally, the vomitus is often of exactly the same character as the stools. The other signs of the condition are common to both the second and the third classes of cases and may be present or absent in either. Among these other signs those of chief importance are: (1) If air is pumped through the rectum the stomach will become dilated and gas will be belched. The right half of the transverse colon and the ascending colon will either remain undilated or will only dilate after the stomach. (2) There may be present a severe diarrhoea, lienteric in character, large particles of wholly undigested food being passed soon after food is taken. (3) Emaciation is likely to be rapid and extreme. (4) In cases in which vomiting is easily produced if colored or other easily recognizable substances are introduced into the rectum they may be recovered in the vomit. (5) If the stomach washing be tried it will be found that only a small amount of the water introduced can be recovered by the stomach tube, the greater portion will be expelled by the bowel. (6) Inflation of the stomach may

show that the air passes directly into the colon. The case reported by the authors illustrates very beautifully how easy it is, even with an apparent wealth of characteristic signs, to make a wrong diagnosis.

4. **Insanity as a Sequel to Physical Conditions.**

—Richardson concludes that in the determination of the probable origin of a given form and degree of mental disease and the reasonableness of its development from an assigned cause, there are a few points which should always be kept in mind: 1. How much influence had original and natural defect or nervous instability in the development of the conditions found? 2. Do the assigned exciting causes bear a reasonable relation to the form of mental disease existing? 3. Can you exclude all other causes that might more probably produce the same condition?

MEDICAL NEWS.

October 17, 1903.

1. Bronchiectasis in the Tuberculous. An Unusual Case Reported, By S. EDWIN SOLLY.
2. Early Recognition of Impending Obstetric Accidents, By JOSEPH B. DE LEE.
3. Thiocol in the Treatment of Croupous Pneumonia, By E. FLETCHER INGALLS.
4. Pathology and Prophylactic Treatment of Puerperal Sepsis, By J. CLIFTON EDGAR.
5. The Development of Our Knowledge of Puerperal Infection, By BROOKS H. WELLS.
6. Sublamine in the Treatment of Parasitic Scalp Diseases, By WILLIAM S. GOTTHEIL.
7. The Importance of the Surgical Treatment of Chronic Middle-ear Suppuration, By EDWARD BRADFORD DENCH.

1. **Bronchiectasis in the Tuberculous.**—Solly reports at length a case which seems to contradict Hoffmann's dictum, in Nothnagel's *Encyclopædia of Practical Medicine*, that "as a fundamental principle we may accept the axiom that tuberculosis may occur as a complication of bronchiectasis, but not the reverse." . . . In the author's case it appears that "there was undoubtedly a previous tuberculosis at the right apex and in the bronchial glands," and the bronchiectasis appears to have been caused, or brought into prominence by the pressure of the swollen bronchial glands.

2. **Impending Obstetrical Accidents.**—De Lee says that the pregnant woman in general practice is neglected, and that by a moderate amount of intelligent provision nearly all obstetrical accidents may be prevented. He considers in detail the early recognition of impending eclampsia, puerperal hæmorrhages, contracted pelvis, malpresentations, puerperal infections, and ophthalmia neonatorum, and discusses briefly the field of antenatal pathology. The paper does not lend itself to abstraction, and must be read in the original by those especially interested.

4. **Puerperal Sepsis.**—Edgar's paper, like that of De Lee, does not lend itself to abstraction, and should be read in the original by those specially interested. The author tabulates 19 varieties of puerperal sepsis, and considers endometritis under the headings of septic endometritis, putrid endometritis, or sapræmia, and endometritis from mixed infection. The preventive treatment of

puerperal sepsis is summed up under four heads: (1) General hygienic measures; (2) asepsis of patient, physician, and accessories; (3) limitation of internal examinations and manipulations; and antistreptococcic serum.

5. **Our Knowledge of Puerperal Infection.**—Wells's article is an interesting historical review of the subject.

7. **Chronic Middle Ear Suppuration.**—Dench, after reviewing the literature and analyzing the reports of the New York Eye and Ear Infirmary (for the past eight years), which give records of over 64,000 aural cases, concludes: (1) In all cases of persistent and profuse aural discharge the radical operation is the operation of election. In cases of recurrent aural discharge, associated with lesions of the upper air tract, this tract should first be put in a normal condition. (2) In case of persistent but slight discharge from the ear, the operator may advise the removal of the carious ossicles, together with thorough curettement of the middle ear through the external auditory meatus. It should always be explained to the patient, however, that this operation is a tentative one, and that the more radical procedure may be necessary later.

MEDICAL RECORD.

October 17, 1903.

1. Radium: With a Preliminary Note on Radium Rays in the Treatment of Cancer, By MARGARET A. CLEAVES.
2. Stricture of the Male Urethra, By HENRY G. SPOONER.
3. The Need of Organized Effort in the Prevention of the Spread of Tuberculosis, By F. M. POTTENGER.
4. Extensive Brain Loss Without Impairment of Intellectual Faculties, By WALTER KEATE.
5. Eczema Cured by Measles, By G. W. SQUIRES.

1. **Radium.**—Cleaves has brought together in her paper most of the facts concerning radium, which are of more or less interest to physicians, and not a few of the theories advanced to explain the facts observed. The paper does not lend itself to abstracting, since our knowledge of radium is, to a great extent, composed of a number of disjointed and unrelated facts. Radium is perhaps a metal, but it is to be had only as a chloride or bromide. The latter salt is the strongest. There is little of it in existence. One gramme of it, with a radioactivity of 7,000, is worth about \$200. Possibly radium is destined to supplant the x ray in the treatment of carcinoma, lupus, etc. Some experiments have been conducted to determine its therapeutical possibilities, and cures of lupus and carcinoma have been reported. The author has had two cases under treatment with this agent, but the time of treatment has been so limited that no deductions can be drawn.

2. **Stricture of the Male Urethra.**—Spooner devotes most of his space to the consideration of the manner in which the folds of the urethra are disposed. A number of illustrations are given of the appearance of these folds as seen through the endoscope. The author also discusses at some

length the ætiology, pathology, symptoms, and clinical course of strictures.

4. **Extensive Brain Loss.**—Keate reports the case of a man who received an extensive injury to the fore part of the brain through an explosion. The case is not comparable in the severity of the resulting lesions to the famous "American crow-bar case," yet it illustrates very clearly how slight may be the symptoms that at times follow extensive loss of the anterior lobes of the brain. The case is reported at an interval of only one month after the accident.

MISCELLANEOUS

The Agglutination Affinities of Related Bacteria Parasitic in Different Hosts.—Theobald Smith and A. L. Reagh (*Journal of Medical Research*, May, 1903) have reached the following conclusions: 1. There exist agglutination relationships between the pathogenic groups of bacilli which ferment dextrose. These relationships are not brought out clearly unless the agglutinative limit of the various cultures is worked out with a serum agglutinating its specific bacillus in dilutions of 1 to 1000 and more. 2. Agglutinative characters are probably modified quantitatively when the same bacillus becomes parasitic upon different hosts, some being weakened or suppressed, others augmented. 3. Close agglutinative affinities may be predicted from close biological and pathogenic relationships. 4. Minor cultural differences involving membrane formation in bouillon and differences in the appearance of surface colonies do not exclude close agglutinative affinities. 5. It is not possible to trace the members of this group attacking man back to the animal species from which they may have come by agglutinative tests alone. This may perhaps be done in combination with cultural and pathogenic tests after the various races parasitic upon different animal species shall have been more thoroughly identified. 6. Closely related bacteria vegetating on mucous membranes may vary considerably in their agglutinative relationships, differing in this regard from the more invasive species whose varieties or races are more homogeneous. 7. Of the pathogenic cultures examined *B. icteroides* and the hog cholera bacillus *a* on the one hand, and spermophile and guinea pig diseases *a* and *b* possess nearly identical agglutinative properties. 8. The typhoid bacillus shows slight agglutinative affinities with the group of motive bacilli isolated from animals. The typical colon bacillus shows none. 9. Identical biochemical properties of *B. coli* from the same host are associated with close agglutination affinities. 10. Two races of bacilli whose sera agglutinate both races the same quantitatively, may be acted upon differently by the serum of a third race. 11. Guinea pigs and rabbits immunized in the same way with the same culture yield sera whose agglutinins are the same qualitatively. Exact quantitative uniformity may or may not be obtained, and depends upon the relative susceptibility of the animal and the use of living or dead cultures.

Letters to the Editor.

RENAL DECAPSULATION FOR CONDITIONS OTHER THAN CHRONIC BRIGHT'S DISEASE.

59 WEST FORTY-NINTH STREET,

NEW YORK, October 12, 1903.

To the Editor,

Sir: In Dr. James Tyson's article entitled Edebohls's Operation of Decapsulation of the Kidney for the Cure of Chronic Bright's Disease, and the Indications for Its Performance, which appeared in your valued journal of October 10, 1903, the distinguished professor of medicine, University of Pennsylvania, says on page 701: "It is an operation which has come to stay, and may even be extended to other cases than those of nephritis in its various forms." In illustration of the latter half of this statement he cites the case of renal decapsulation for puerperal eclampsia reported by the writer in the *New York Medical Journal*, June 6, 1903, and adds that he has in mind a case of his own of so called idiopathic hæmaturia in which he will advise the operation if the hæmaturia persists. The writer has operated in quite a number of cases of nephritis in which renal hæmaturia was a symptom dangerous and alarming in itself, and has long been waiting for a case of obstinate so called idiopathic renal hæmaturia in which to try renal decapsulation. From the strikingly happy results obtained in controlling the hæmaturia associated with nephritis, I entertain but little doubt that renal decapsulation would promptly check the hæmorrhage in cases of so called idiopathic renal hæmaturia.

As regards the extension of renal decapsulation to other cases than those of nephritis in its various forms, that is already an accomplished fact. In a paper read before the British Medical Association in August, 1902, and published in the *British Medical Journal*, November 8, 1902, page 1507, I reported six cases representing various diseased conditions of the kidney other than chronic Bright's disease, in the treatment of which I had successfully applied renal decapsulation. This paper, entitled *Renal Decapsulation versus Nephrotomy, Resection of the Kidney, and Nephrectomy*, seems not to have come to Dr. Tyson's attention. It details the performance of renal decapsulation in two cases of acute pyelonephritis with miliary abscesses, one case of nephritis acutissima hæmorrhagica, one case of intermittent hydronephrosis, one case of intermittent pyonephrosis, and one case of diffuse polycystic degeneration of the kidney. Since the publication of the paper mentioned I have had occasion to perform renal decapsulation in two further cases of multiple abscess of the kidney, one of them affecting a patient with congenital solitary kidney.

In conclusion, I may be permitted to add that Dr. Tyson's opinion that "renal decapsulation is an operation at least life-prolonging in many cases and curative in some," is abundantly sustained by the experience to date of your correspondent.

GEORGE M. EDEBOHLS.

ARE THE STATE LICENSING LAWS UNCONSTITUTIONAL?

PITTSBURGH, PA., October 15, 1903.

To the Editor,

Sir: Please permit me to propound a question to the medical profession of the United States. The Constitution of the United States, Art. iv, Sec. ii, reads as follows: "The citizens of each State shall be entitled to all the privileges and immunities of the citizens of the several States."

If this applies to all classes of professional men, it would appear to conflict with the laws creating and maintaining the licensing power of the various State boards of medical examiners, and shows the great necessity of strenuous effort to attain the existence of a national board.

The question is, Does this section quoted render our State laws unconstitutional?

R. STANSBURY SUTTON.

Proceedings of Societies.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

SECOND SEMI-ANNUAL MEETING, HELD IN NEW
YORK, OCTOBER 13TH AND 14TH.

(Continued from p. 755.)

The following is the formal report of the scientific proceedings:

Tuesday Morning, October 13th:

The meeting was called to order in the New York Academy of Medicine by the President, Dr. A. T. BRISTOW, of Brooklyn.

Hepatic Drainage.—Dr. JOHN B. DEEVER, of Philadelphia, Pa., read a paper with this title, which will shortly be published in these columns.

Dr. A. VAN DER VEER, of Albany, thought cholecystectomy was an operation that should not be lightly undertaken. He had succeeded well with posterior drainage.

Dr. GEORGE R. FOWLER, of Brooklyn, remarked that a live patient with an infected hepatic duct was better than a dead patient with a drained hepatic duct. To be too radical in this matter of direct drainage from the hepatic duct meant disaster, whereas in the large majority of cases simple drainage of the gall bladder would prove successful.

Dr. DEEVER said that he would have to be thoroughly convinced that a gall bladder was highly infectious before he would attempt its removal.

The Treatment of Certain Classes of the Underfed.—Dr. W. S. ELY, of Rochester, discussed in this paper those cases in which it was exceedingly difficult to get the patient to take sufficient nourishment. The treatment which he recommended was rest and a diet of milk and raw eggs. To be successful, it was generally necessary to secure the discipline of a hospital. The patient should be given at first from four to eight ounces of chocolate every two hours alternately with two raw eggs. The aim should be to give the person one quart each of choco-

late and milk along with six raw eggs each twenty-four hours. The tongue would, of course, be more or less furred, and there would be some distention and rather obstinate constipation. The constipation should be counteracted by giving from 6 to 20 tablets of rhubarb and soda daily. The patient should not be expected to gain before the second week, but if rightly managed it was not unusual for the person to gain from one to three pounds a week for ten or twelve weeks, and with this there would be a corresponding improvement in the state of the blood and in the general condition. To be successful, however, it must not be carried out in any half-hearted way.

Dr. EDWARD B. ANGELL, of Rochester, said that in recent years he had been inclined to discard this method of treatment for one in which exercises, to secure sufficient oxygenation of the blood, took a prominent part. Contrary to the usual statements in the literature, he had found that in this class of persons there was apt to be a marked reduction in the blood pressure. In one case this pressure was only 50 mm., whereas the normal pressure was between 110 and 140 mm.

Dr. A. JACOBI remarked that some of these individuals he had found possessed a heart below the average size.

Faculties of the Mind Not Understood and Not Used, with Special Reference to the Curability of Epilepsy.—Dr. M. A. VEEDER, of Lyon, read this paper. It dealt more with theories than facts, but the author seemed to incline to the view that it was possible to cure certain cases of epilepsy by special training of the mental faculties.

Dr. E. D. FISHER agreed, in a general way, with the view that certain systematic training was of benefit to the epileptic, but was not disposed to look for very brilliant results.

Dr. ANGELL thought the author's suggestions amounted merely to a change in onomatology.

Vaccination and the Law.—Dr. NELSON G. RICHMOND, of Fredonia, presented this paper. He spoke of the various difficulties in the way of securing a general enforcement of our vaccination law, among others as to the interpretation of the law about the admission of children to schools when vaccination had proved unsuccessful. On this point, he judiciously remarked that the number of these so-called immunes was steadily diminishing. Dr. Richmond took the ground that if vaccination had not been made compulsory there would not have developed so much opposition to it. He was as yet undecided as to whether it was better to secure the enforcement of the law or introduce a "conscience clause."

Otitic Serous Meningitis; Lumbar Puncture; Recovery.—Dr. FRANCIS HUBER, of New York, reported a case of mastoid disease and of meningitis in which lumbar puncture had been followed by recovery. Two days after the mastoid operation, the first lumbar puncture was made and 16 gms. of cerebrospinal fluid withdrawn. On the following day about half as much was removed. At the end of three weeks the child was practically well. The fluid was examined but no tubercle bacilli were discovered.

Tuesday Afternoon:

SYMPOSIUM ON THE RÖNTGEN RAY.

Therapeutic Use.—Dr. A. D. BEVAN, of Chicago, presented the opening paper. He said that evidence regarding the effect of the x ray in lupus was conflicting, but it seemed to be rather in favor of the Finsen light treatment. Aside from its action in lupus its use in tuberculosis could only be said to be promising. The x ray was certainly a most important factor in the treatment of Hodgkin's disease. In sarcoma it was very unsatisfactory, but it seemed to have a selective action on the epithelial cells of carcinoma; it would certainly cause the rapid melting down and absorption of a carcinoma if situated within one centimetre of the surface. The value of the x ray varied inversely with the size of the growth; indeed, while it was applicable to cases of slowly growing and very superficial cancer of the rodent ulcer type, and was particularly useful in the removal of growths about the lips and eyelids which could not be removed by the knife without causing considerable deformity, it was impotent in rapidly growing, deep, or very extensive carcinomata. The latter class should be extirpated by operation, and then the part subjected to a thorough course of x ray treatment. At present, therefore, the x ray treatment of cancer occupied a very limited field, but it was possible that some modification of the treatment, such as the use of iodine or arsenic in conjunction with the Röntgen ray, might so reduce the vitality of the cancer cells in the deeper growths as to bring them within the power of this ray. Burns might be produced even by the most expert operators.

Diagnostic Value of the Röntgen Ray.—Dr. C. L. LEONARD, of Philadelphia, Pa., discussed this subject so far as it related to the diagnosis of renal and ureteral calculi. He said that the method surpassed in accuracy all other diagnostic procedures, and made many exploratory operations unnecessary. Of 300 observations on such cases, calculi had been found in over 28 per cent. Over 50 per cent. of these cases were instances of ureteral calculus, and in 19 of these cases operation was postponed because of the results of the x ray examination, and the calculi were passed spontaneously. It was of the highest importance in this work to employ only such tubes as would not allow the vacuum to vary during the exposure, because such variation might lead to penetration of the calculus and to consequent error in diagnosis. He used a plate twenty inches long and avoided the superposition of the shadows of the calculi upon the bones of the pelvis.

Further Observation upon the Treatment of Sarcoma with the Röntgen Ray.—Dr. WILLIAM B. COLEY, of New York, read this paper. He said that he had observed 103 cases of malignant growths at the General Memorial Hospital in the past eighteen months of which number 30 were recurrent carcinomata of the breast, 42 were inoperable sarcomata, and 25 superficial cancers. Of the 30 recurrent carcinomata of the breast, in only one case did a deeply seated growth disappear under the x ray treatment. On theoretical grounds he would expect much from the prophylactic use of the x ray, yet his own experience showed no special confirmation of this view. He protested against the use of the x ray before operation, on the ground that it

blinded the patient to the real danger and caused the loss of precious time, and because the operating surgeon was likely to be misled as to the true limits of the neoplasm. Although Pusey, in his recent book, asserted that 77 per cent. had been apparently cured, a careful study of the reports revealed the fact that in only 7 cases had treatment ceased over eight months, and in only one case over fifteen months.

Dr. GEORGE G. HOPKINS, of Brooklyn, said that he had had considerable experience in this field, and believed he was justified in asserting that we had in the x ray alone a means of curing the majority of cases of early carcinoma of the breast.

Dr. W. E. FORD, of Utica, said that from what he had seen of the x ray treatment of cancer at St. Luke's Hospital, Utica, he had come to the conclusion that this treatment only served to cause a temporary arrest of the growth, and that it absolutely failed in cancer of the uterus.

Dr. A. VAN DER VEER, of Albany, said that most observers seemed to be agreed that this treatment was permanently beneficial in only a small proportion of cases, yet he had been deeply impressed with the wonderful relief it gave these sufferers.

Dr. L. DUNCAN BULKLEY said that his enthusiasm was on the wane, and that he would not care to treat malignant disease by the Röntgen ray alone.

Dr. BEVAN was of the opinion that a diagnosis of renal calculus could be made by means of the x ray in fully 90 per cent. of the cases. In order to do so, however, a proper technics must be employed. He preferred to lay a sheet lead shield over the abdomen, and pass the x ray through an aperture in this shield made over the region of the kidney and ureter. When examining the skiagraph the latter should be placed in a darkened room in such a way that all the light admitted to the room passed through the plate, and the observer should then view the plate with a good opera glass at a distance of fifteen or twenty feet.

Radium in Medicine.—Dr. SAMUEL G. TRACY, of New York, read a paper on the physiological and other properties of radium, which appears in full on page 792.

The Legal Status of the Röntgen Ray.—Honorable WILLIAM W. GOODRICH, Presiding Justice, Appellate Division, Supreme Court and Judicial District, delivered an address on this topic, in which he reviewed the various legal decisions that had been rendered. He said that the first time x ray photographs had been admitted as legal evidence was in Colorado, in 1896, but the case had not been reported in the law books. Probably the best known precedent occurred in Texas, in September, 1897, and since that time various other States had admitted such evidence. In 1897 no objection was made to the operation before a jury in the Kings County Court House of an x ray apparatus. The Massachusetts Supreme Court had ruled in 1901 that, while the picture produced by the x ray could not be verified as a true representation of the subject in the same way as a picture made by a camera could be, yet it should be admitted as evidence if properly taken. The competency of such evidence depended, of course, upon the science, skill, experience and intelligence of the party taking the photograph and testifying regarding it.

(To be concluded.)

Book Notices.

Diseases of the Heart and Arterial System. Designed to be a Practical Presentation of the Subject for the Use of Students and Practitioners of Medicine. By ROBERT H. BABCOCK, A. M., M. D., Professor of Clinical Medicine and Diseases of the Chest, College of Physicians and Surgeons, Chicago, etc. With Three Colored Plates and One Hundred and Thirty-nine Illustrations. New York and London: D. Appleton & Company, 1903. Pp. xxi-853.

While an author dealing at the present day with cardiac and arterial diseases can find little to say that is actually new, there are methods of bringing out what has long been known in such a graphic clearness as to give the reader practically fresh ideas of the subject. In this Dr. Babcock, as was to be expected in view of his long experience and his diagnostic acuteness, has succeeded admirably.

The strong point of the book, however, is in its therapeutics, and for this reason also it will prove of inestimable value.

Diseases of the Liver, Pancreas, and Suprarenal Capsules. By LEOPOLD OSER, M. D., Professor of Internal Medicine, University of Vienna; EDMUND NEUSSER, M. D., Professor of Internal Medicine, University of Vienna; HEINRICH QUINCKE, M. D., Professor of the Practice of Medicine, University of Kiel; and G. HOPPE-SEYLER, M. D., Professor of Internal Medicine, University of Kiel. Edited, with Additions, by REGINALD H. FITZ, M. D., Hersey Professor of the Theory and Practice of Physics, Harvard University, and FREDERICK A. PACKARD, M. D., Late Physician to the Pennsylvania Hospital, etc. Authorized Translation from the German, under the Editorial Supervision of ALFRED STENGEL, M. D., Professor of Clinical Medicine in the University of Pennsylvania. Illustrated. Philadelphia, New York, and London: W. B. Saunders & Company, 1903. Pp. 5 to 918. (Price, \$5.)

Each volume of the translation of Nothnagel's *System*, as it appears, sustains the high character of the original work. The value to the medical reader is not alone in bringing before him in intelligible language the vast store of knowledge contained in the original, but in bringing this almost recent knowledge quite up to date. There is no question that the material in the English translation is much more valuable than that contained in the original German. Dr. Fitz, the editor of the first part of this volume, on *Diseases of the Pancreas* and of the *Suprarenal Capsules*, is himself identified with original work on the subject. He brings to his task, therefore, the fruits of his own extensive knowledge, which we consider are no less than those of Oser. However, since the publication of Oser's work the subsequent investigations of Opie on the relation of the islands of Langerhans to pancreatic pathology and that of the effects of cholelithiasis in the production of acute pancreatitis, the comprehensive work of Körte and of Mayo Robson on the surgical aspect of pancreatic disease, and that of the

latter on the ætiology and treatment of chronic pancreatitis, have been epoch making, and are given adequate attention in this volume and consequently enhance the value of the original.

While it is true that much less attention relatively has been given to diseases of the liver, still Dr. Packard, whose death prevented his seeing his numerous critical additions to Quincke's and Hoppe-Seyler's monograph through the press, sustained the importance of the subject by his own intimate knowledge and clinical investigations in that field.

The Practitioner's Guide. By J. WALTER CARR, M. D. (Lond.), F. R. C. P., Physician to the Royal Free Hospital, etc.; T. PICKERING PICK, F. R. C. S., Consulting Surgeon to St. George's Hospital, etc.; ALBAN H. G. DORAN, F. R. C. S., Surgeon to the Samaritan Free Hospital, and ANDREW DUNCAN, M. D., B. S. (Lond.), F. R. C. S., M. R. C. P., Physician to the Branch Hospital, Seamen's Hospital Society, etc. London, New York, and Bombay: Longmans, Green, & Company, 1903. Pp. vi-1107.

This guide is really a dictionary in which are succinctly stated the essential features of the various medical and surgical subjects which the practitioner may meet with in his reading or work. Some topics receive a larger share of attention than others, in proportion to the importance ascribed to them by the authors. We do not believe that under the present conditions of instruction in the medical schools in the United States the book is at all necessary, for this country, at least.

Klinisches Jahrbuch. Neunter Band. Zweites Heft. Professor Dr. A. GÄRTNER. Die Quellen in ihren Beziehungen zum Grundwasser und zum Typhus. Jena: Gustav Fischer, 1902. Pp. 335 to 498.

The author starts this pamphlet by defining accurately the difference between the geological and hygienic aspects of spring and ground water. He shows that the character of the ground differs in many cases, its power of absorption and filtration influencing the spring water in each case. Next in importance to the character of the ground through which the spring passes, is the question of pollution of the tributaries by drainage. In every case, however, the author emphasizes the necessity of repeated examinations of the water. He points out that the infectious quality of the water is apt to change from day to day. It has been proved repeatedly that in many instances the spring water is nothing more than unfiltered surface water.

It is the exception for ground water to become infected with typhoid bacilli, whereas such infection is of frequent occurrence in spring water. Whenever possible, it is advisable to substitute good ground water for doubtful spring water. This is especially to be borne in mind when the subject of barracks supply water is in question. The best way of combating infection of spring water by typhoid is to teach the people how to prevent the infection of their own springs. Strict hygiene and disinfection of the excreta must be enforced, cases must be reported, etc. The author

concludes that it is not difficult to wipe out typhoid; possibly the work may prove a little tedious.

Numerous diagrams are included in the book. A good many of the epidemics of typhoid in Germany and other countries are gone over carefully, and thoroughly explained whenever it is possible. The author has dealt with the subject most fully, and undoubtedly has added an extremely valuable contribution to medical literature.

BOOKS, ETC., RECEIVED.

Transactions of the New Hampshire Medical Society at the One Hundred and Twelfth Anniversary, held at Concord, May 21 and 22, 1903. Concord, N. H.: Ira C. Evans Co., Printers. 1903. Pp. 256.

The Medical Annals of Maryland, 1799-1899. Prepared for the Centennial of the Medical and Chirurgical Faculty, by EUGENE FAUNTLEROY CORDELL, M. D., Baltimore. 1903. Pp. 888.

The Practice of Medicine. A Text-Book for Practitioners and Students. With Special Reference to Diagnosis and Treatment, by JAMES TYSON, M. D., Professor of Medicine in the University of Pennsylvania, and Physician to the Hospital of the University; Physician to the Pennsylvania Hospital; Fellow of the College of Physicians of Philadelphia; Member of the Association of American Physicians; etc. Third Edition. Thoroughly Revised and in Parts Rewritten. With 134 Illustrations, including Colored Plates. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1903. Pp. xvii-1240.

Encyclopædia Medica. Under the General Editorship of CHALMERS WATSON, M. B., F. R. C. P. E. Volumes I to XIII. New York: Longmans, Green, & Co. 1903. Pp. 584.

Vademecum der Geburtshilfe für Studierende und Ärzte, von Professor Dr. M. LANGE, Königsberg LPR. Mit 118 Abbildungen. Dritte, Vermehrte und Umgearbeitete Auflage. Würzburg: A. Stubers Verlag (C. Kabitzsch). 1904. Pp. viii-303.

Pregnancy, Labor, and Child-Bed, With Ovarian Tumor. By R. G. MCKERRON, M. A., M. D., Physician to the Maternity Hospital; Assistant to the Professor of Midwifery in the University; Senior Physician, Royal Hospital for Sick Children; Aberdeen. London: Rebman, Limited, 129 Shaftesbury Avenue, W. C. 1903. Pp. viii-281.

Manual Practical Anatomy, by D. J. CUNNINGHAM, M. D. (Edin. et Dubl.), D. Sc. LL. D., D. C. L. (Oxon.), F. R. S., Professor of Anatomy in the University of Edinburgh. Volume First, Upper Limb; Lower Limb; Abdomen. Third Edition. Illustrated with 205 Engravings; Many in Colors. Philadelphia: J. B. Lippincott Company. Edinburgh and London: Young J. Pentland. 1903. Pp. xvii-605.

Manual of Practical Anatomy, by D. J. CUNNINGHAM, M. D. (Edin. et Dubl.), D. Sc. LL. D., D. C. L. (Oxon.), F. R. S., Professor of Anatomy in the University of Edinburgh. Volume Second. Thorax: Head and Neck. Third Edition. Illustrated with 225 Engravings; Many in Colors. Philadelphia: J. B. Lippincott Company. Edinburgh and London: Young J. Pentland. 1903. Pp. xvii-607.

Boletín Extraordinario Consejo Superior de Salubridad. Texto. En Español, Francés é. Ingles. Documento oficiales relativos a la epidemia de la Pesto bubonica Observada en Mazatlán, Sinaloa y la Ensenada de Tordes Santos, Baja California. Número 4. Marzo A. Junio de 1903. Mexico: Establecimiento Tipográfico de J. Palencia Avenida Juárez, Núm. 624. 1903. Pp. 143.

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the Fiscal Year 1900. Washington: Government Printing Office. Pp. 736.

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the Fiscal Year 1901. Washington: Government Printing Office. Pp. 652.

Die Fermente und Ihre Wirkungen. von CARL OPPENHEIMER, Dr. Phil. et. Med. Assistent am Thierphysiol Inst. D. Landwirth. Hochschule. Berlin: Zweite Neubearbeitete Auflage. Leipzig: Verlag von F. C. W. Vogel. 1903. Pp. 439.

Modern Microscopy. A Handbook for Beginners and Students. Combining I. The Microscope and Instructions for Its Use, by M. I. CROSS; II. Microscopic Objects: How Prepared and Mounted, by MARTIN J. COLE, Lecturer in Histology at Cooke's School of Anatomy. Third Edition. Entirely Revised and Enlarged, to Which is Added, III. Microtomes: Their Choice and Use. Chicago: W. T. Keener & Co., 90 Wabash Avenue, 1903. Pp. xvi-292.

A Surgical Handbook for the Use of Students, Practitioners, House Surgeons, and Dressers. By FRANCIS M. CAIRD, M. B., F. R. C. S. (Ed.), Assistant Surgeon, Royal Infirmary, Edinburgh, and CHARLES W. CATHCART, M. B., F. R. C. S. (Eng. and Ed.), Surgeon, Royal Infirmary, Edinburgh. With Very Numerous Illustrations. Twelfth Edition. London: Charles Griffin & Company, Limited. Chicago: W. T. Keener & Co., 1903. (All Rights Reserved.) Pp. xv-323. (Price, \$2.75 net).

Diseases of the Skin. An Outline of the Principles and Practice of Dermatology. By MALCOLM MORRIS, Consulting Surgeon to the Skin Department, St. Mary's Hospital, London; Corresponding Member of the E. K. Gesellschaft der Ärzte in Wien, Honorary Member of the Wiener Dermatologische Gesellschaft and of the Société Française de Dermatologie. With Two Colored Plates and Fifty-eight Plain Figures. New Edition. Chicago: W. T. Keener & Co., 1903. Pp. xvi-642.

*Lectures on the Diagnosis of Abdominal Tumors, Delivered to the Postgraduate Class, Johns Hopkins University, 1893. By WILLIAM OSLER, M. D., Professor of Medicine, Johns Hopkins University; Physician-in-chief, Johns Hopkins Hospital, Baltimore. Reprinted from the *New York Medical Journal*, 1894. New York: D. Appleton & Company. 1899. Pp. 192.*

Miscellany.

Sir Charles Wyndham, Comedian, M. D.—Sir Charles Wyndham, the eminent English actor, is well known, and indeed highly appreciated in the United States. What is perhaps less well known is the fact that he was, before the Thespian art claimed him for its own—and, for the matter of that, as will be seen, he reminds us that he still is—a licensed medical practitioner. He has a further special claim on this country arising out of the fact that he served as a surgeon during the civil war. These few remarks are, we trust, a sufficient introduction to his opening address at the Charing Cross Medical School. The strong common sense, the thorough comprehension, the sound ethical philosophy, the wide grip of first principles, evinced by the distinguished author—distinguished to-day in other fields, as he would surely have been in ours, had he remained therein—will, we feel satisfied, prove ample justification for the space we devote to them, since they demonstrate how deeply graven is the influence of the medical career upon all great natures, even after a lifetime of toil, success, and popularity in alien spheres.

According to the *Lancet* for October 10th, Sir Charles spoke, in part, as follows:

"You will naturally expect me first to congratulate the prize-winners. Pardon me if I do the very opposite—advisedly. For what is the position of these brilliant young gentlemen who have been proclaimed victors in these contests? One I would not accept for worlds. They have given hostages to fortune. They are doomed through life to live up to their present eminence and woe betide them if they are lulled into indolence or tempted to rest on these early laurels. No. They are certainly entitled to our appreciation, but our felicitations are due to those who have contended manfully in this intellectual arena, though for the moment without tangible result. No Capua invites them to inglorious repose. Theirs is the tonic of unsatisfied ambition, not the possible opiate of gorged achievement.

"Act well your part; therein the honour lies,
The virtue's in the struggle, not the prize."

"Seriously, I tender my congratulations to all of you who have worked well, whether prizes have or have not fallen to your lot. Work is the one thing worthy of honour. It is the one thing that wins the most solid treasure that life has to give—that supreme consciousness of having put forth the best the worker has in him. The divinest artist demands no more than this; the humblest servant maid achieves no less:—

"Who sweeps a room as for Thy laws
Makes that and the action fine."

"And now in approaching the most difficult part of my undertaking I pause to wonder in what capacity I shall do so. Shall it be in no special character at all beyond that of the mere layman? If so, what advice can a medical student usefully receive from a layman? The only precedent at my disposal is when the medical student consulted Mephistopheles and the suggestions made by that sulphurous layman were characterized by such deplorable immorality that I dare not take him as my example. It is, on the contrary, my humble ambition to make my observations at least respectable if even preeminently dull. Or shall I address you as one who formerly had the honour to belong to the profession you are about to enter? I am entitled to do so. My diplomas are in order; therefore I stand before you legally supposed neither quite unlessoned nor unpractised. Indeed, it is competent upon me to operate upon or to prescribe for any one of you who may have the pluck to entrust himself to my tender mercies. Do not all speak at once. But, alas, 'a little learning is a dangerous thing,' the lessons of those early days have long since been forgotten, and the theatres in which my operations are now conducted are not of a surgical character. Theoretically I may belong to you, practically I stand apart. Apart, but not aloof. For the memory of that part in my life which is now the present and will be the future in yours is to me a bond between us that the rapid and ruthless passage of years can never wholly deface. Or shall I deliver myself of my rambling observations in the character of a mere man of the world, with such value as the difference in our ages may attach to them? A man who like myself has, well, escaped from his first youth, must presumably have gathered something from his experience which he can impart to others. In short, I am not too young to give you, nor you too old to receive, a few discursive general hints. Gentlemen, my first counsel to you may seem commonplace: most good advice is. I would urge you to put before and above everything else the primary virtue of loyalty to your profession. I do not mean mere sticking to one another. Valuable as this quality is it may mean or may degenerate into nothing better than trade unionism or the slavish bondage of etiquette to the prejudice of weightier matters. I mean loyalty to the great ideals of the profession. You cannot put them too high. You cannot have too exalted a conception of the vast importance, the nobility, I would almost say the sanctity, of your vocation. There is none to surpass it in the purity and unselfishness of its aims, the multitude of points at which it touches life or the intimacy of its relations to the community, the household, and the individual. 'Man,' said Bacon, 'is the minister and interpreter of nature.' The medical art is the minister and interpreter of man. Your influence over the lives, thoughts, pursuits, and desires thus laid bare before you will be enormous. You will be conversant with the simple annals of the poor and the inner lives of the great. You will be welcomed as a friend in the cottage and you may stand on the steps of a throne, blessed by the lowly, desired, even sometimes feared, by the mighty. More to Louis XI. than all the remonstrances of his counsellors, the denunciation of his confessor, the relics of the saints, or the leaden images of the Virgin above his brow, was the uplifted finger of his physician. And the interaction of body and mind is such that no one can treat the one without treating the other, too. There have been some extremists who have held that all bodily states are pure creations of the mind; others that all mental states are merely products of the physical organism; or, as Condorcet tersely puts it, 'Virtue is a gas and poetry a secretion.' Each of these extreme theories has long since been discarded, and it is now recognized that by processes mysterious in origin but discernible in action, mind and body determinate and mould one another, whilst the empire of medicine dominates both for the preservation of the lives and happiness of its sub-

jects. In exact proportion therefore to the vastness and stringency of this empire are the responsibility of its administrators and the need for those essential qualities of watchfulness, tact, sympathy, and discretion. But do not let this seduce you into even the faintest suspicion of misusing the dominion which you will necessarily possess over the lives and interests of those committed to your charge—whose habits, modes of thought, and human weaknesses will be an open book to you. It is because this danger is so insidious that the law in its wisdom has placed the relation of medical man and patient in the same category as those existing between the priest and penitent, the solicitor and client, not because medical men, solicitors, and priests are dishonourable men or undeserving of grateful recognition, but because the mere existence and intimacy of the relation raise of themselves the presumption of supremacy on the one side and subjection on the other. Do not forget either that you are frequently the repository of private and family confidences, often withheld from the friend or the priest, the husband or the wife, the son or the father, needing on your part the utmost delicacy and discretion. It is sometimes dangerous even to whisper to your nearest and dearest the secrets of the sick room. On the other hand, do not cultivate reticence at the expense of other and equally important qualities. Science demands courage also from its votaries. I do not mean physical courage. It is quite unnecessary to speak of physical courage when addressing a body of young Englishmen entering a profession whose annals blaze with the records of heroism on land and sea, at home and abroad, on the field of battle, in the hospital, the wilderness, and the slum. I mean moral courage. In this age when the smaller vices are multiplying, each with its attendant nemesis of disease, have the courage to call things by their proper names. If a patient courts death or misery by drink, drugs, or vicious life tell him so in the plainest terms. Do not disguise the truth by some euphemistic Greek words ending in 'itis'—words which fall weakly on one coward's ears and issue lightly from another coward's lips. To gloss over the vice which causes—nay, is—the disease and thereby to encourage its continuance is high treason to your profession. There are occasions when silence is not golden—cases to which an agreeable bedside manner is less appropriate than a dash of the caustic, sturdy honesty of an Abernethy. These moral requisites of your calling are summed up in the embracing virtue of loyalty—to your profession, to your patients, and to yourselves. No less exacting, however, are the demands made by your vocation upon the intellectual side of your nature. Never was there a time in the history of the healing art when greater alertness and versatility of mind were required by its practitioners to cope with the ever-increasing rapidity of development. Life as it is to-day, when we contrast it even with what it was in the early part of the Victorian era, has become a thousand-fold more complex, and it will tax all your energies to keep abreast of this growing complexity. New pursuits, new habits, new vices and their consequences, and new diseases, on the one hand, have provoked new theories, new methods, and new remedies on the other. Each successive invention, whether for utility or amusement—railways, lawn-tennis, cycles, motor-cars, even the fascinating game of bridge, if too fascinating, the growing recourse to opium, chloral, morphia, cocaine, ether, and other deadly poisons—each has carried with it its special ailment and demands its special treatment. Increasing variety of disease demands at your hands increasing resourcefulness. And it will be your own fault if with such armories and stores as are ready to your hand you are caught by the enemy tripping. At the same time, everything will depend upon yourselves. Material resources will be nothing without the individual brain, lectures and books mere baggage unless properly applied, whilst there is one book of which not this or any other institution has the copyright—the vast volume of human life which lies open to the exploration of any of you. And it is worth every effort on your part. You will have the sympathy and appreciation of every one to help you. Never has your profession stood higher in man's estimation than now. You have, on the one hand, the most practical sovereign of the day, our king, faithfully interpreting to you the sentiment of his subjects, and, on the other hand, the voice of the nation to sustain you. The large space you occupy in men's minds and hearts is as you see reflected in modern literature and art. The physician has outlived the satire of Molière. To-day the painter, the novelist, and the dramatist vie with each other in doing homage to his character. Remember the sensation caused by the picture which a few years ago

adorned the walls of the Academy—the doctor fighting for his patient's life through the long watches of the night, and inch by inch disputing the ground with death. As on canvas so in print, and upon the stage the physician and the surgeon are proclaimed the friends of men to be loved for the good they do, not, as used to be, the enemies to be feared for the evil they may do. But do not forget that though you start with the goodwill of men and with vast scientific achievements and discoveries at your back, there are still many unsolved problems to stir your ardor. Alexander's lament need not be yours, there are still many worlds for you to conquer. Though you wend your steep triumphal way to the Capitol with many a captive bacillus at your chariot wheel, there are many more which still elude your vigilance and do not own your sway. Which of you, I wonder, is destined to win imperishable fame as the discoverer of the definite cure for our national scourge, consumption? Whence will come the living radium to burn out that fell destroyer cancer? Gentlemen, it may not be given to all of you to establish epoch-making discoveries or to write great books or to become fashionable physicians. Harley Street is not long enough to accommodate every one of you, but it is open to all of you to descend into the arena and to contribute your quota to the ceaseless conflict. For many as are the mysteries which the healing art has fathomed of late, they are as nothing beside that vast, bitter, unplumbed ocean of human disease which still ceaselessly throbs and tosses on the rocky bed of pain and moans around you with its many voices."

Official News.

Public Health and Marine Hospital Service Reports:

The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending October 16, 1903:

Smallpox—United States.			
Place.		Cases.	Deaths.
Alabama—Mobile	Oct. 4-10	4	
California—Los Angeles	Sept. 27-Oct. 3	6	
California—San Francisco	Sept. 28-Oct. 4	1	
Illinois—Chicago	Oct. 4-10	3	
Illinois—Danville	Oct. 4-10	2	
Maryland—Baltimore	Oct. 4-10	1	
Michigan—Detroit	Oct. 4-10	1	
New York—New York City	Oct. 4-10	4	
New York—Niagara Falls	Oct. 4-10	2	
Ohio—Cincinnati	Oct. 3-9	1	
Pennsylvania—Altoona	Oct. 4-10	1	
Pennsylvania—Carbondale	Oct. 8-14	2	
Pennsylvania—Philadelphia	Oct. 4-10	11	3
Tennessee—Memphis	Oct. 4-10	2	
Texas—San Antonio	Sept. 1-30	12	1
Utah—Salt Lake City	Sept. 27-Oct. 10	8	
Wisconsin—Milwaukee	Oct. 4-10	7	
Smallpox—Insular.			
Philippine Islands—Manila	Aug. 22-29	3	1
Smallpox—Foreign.			
Austria-Hungary—Prague	Sept. 20-26	4	
France—Paris	Sept. 20-26	1	
Great Britain—Bradford	Sept. 20-26	8	
Gt. Britain—Newcastle-on-Tyne	Sept. 20-26	5	
Italy—Catania	Sept. 25-Oct. 1	1	
Russia—Moscow	Sept. 13-19	1	1
Russia—Odessa	Sept. 20-26	1	
Russia—St. Petersburg	Sept. 13-19	42	
Spain—Barcelona	Sept. 13-26	4	
Yellow Fever—United States.			
Texas—Laredo	Oct. 7-15	180	10
Texas—Minera	Oct. 3-12	50	
Yellow Fever—Foreign.			
Costa Rica—Limon	Sept. 25-Oct. 1	2	1
Mexico—Linares	Sept. 6-26	446	202
Mexico—Merida	Sept. 6-26	18	4
Mexico—Nuevo Laredo	Oct. 5-13	18	2
Mexico—Quintana Roo	Sept. 20-26	1	1
Mexico—Tampico	Sept. 27-Oct. 3	1	
Mexico—Tehuantepec	Sept. 6-26	6	
Mexico—Salina Cruz	Sept. 6-26	4	2
Mexico—Valladolid	Sept. 13-26	1	
Mexico—Vera Cruz	Sept. 27-Oct. 3	45	9
Venezuela—Caracas	Sept. 15	1	
Cholera—Insular.			
Philippine Islands—Manila	Aug. 22-29	19	19
Philippine Islands—Provinces	Aug. 22-29	1,593	1,262
Cholera—Foreign.			
China—Shanghai	Aug. 22-29	9	
India—Calcutta	Sept. 6-12	4	
India—Madras	Sept. 5-11	2	
Turkey—Syria	Sept. 1-14	473	31
Straits Settlements—Singapore	Aug. 23-29	7	
Plague—Insular.			
Philippine Islands—Manila	Aug. 22-29	2	1

Nagur—Foreign.

Egypt—Alexandria	Sept. 5-11	10	5
Egypt—Damietta	Sept. 5-11	1	1
France—Marseilles	To Sept. 15	9	1
India—Bombay	Sept. 2-15	142	
India—Calcutta	Sept. 6-12	13	
Japan—Yokohama	Aug. 22-Sept. 12	4	3

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending September 17, 1903:

EDIE, GUY L., Major and Surgeon. Is granted leave of absence for three months, to take effect after his arrival in San Francisco.

GARDNER, EDWIN F., Colonel and Deputy Surgeon-General. Will proceed at once to Fort Riley for duty.

GILCHRIST, HARRY L., First Lieutenant and Assistant Surgeon. Upon conclusion of the manœuvres at West Point, Ky., will return to Fort Screven.

RICHARDSON, GEORGE H., First Lieutenant and Assistant Surgeon. Is granted leave of absence for one month and ten days, to take effect on or about November 21, 1903.

RAFFERTY, OGDEN, Major and Surgeon. Is relieved from duty as medical superintendent of the Army Transport Service, at San Francisco, and is ordered to duty at Fort Monroe to relieve Richard W. Johnson, Major and Surgeon, who will proceed to Washington for instructions and assignment to duty in connection with the Medical Department exhibit at the Louisiana Purchase Exposition.

MABEE, JAMES I., First Lieutenant and Assistant Surgeon. Is relieved from duty at Vancouver Barracks.

STILES, HENRY R. Is granted three months' leave of absence when he is relieved from duty in the Philippines.

TRUBY, WILLARD F., First Lieutenant and Assistant Surgeon. Is relieved from duty at Fort Ethan Allen and ordered to Fort Preble, Me., to relieve Charles B. Ewing, Major and Surgeon, who will proceed to Columbus Barracks, Ohio, to relieve Guy L. Edie, Major and Surgeon. Major Edie will proceed to San Francisco, Cal., for transportation to Manila.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending October 17, 1903:

ARNOLD, W. F., Surgeon. Detached from treatment at the Naval Hospital, Mare Island, Cal., ordered home with three months' sick leave.

DE LANCEY, C. H., Assistant Surgeon. Detached from the Hancock and ordered to the Petrel.

DE LANCEY, C. H., Passed Assistant Surgeon. Commissioned a passed assistant surgeon, with the rank of lieutenant, from June 7, 1903.

DOUGLASS, S. W., Pharmacist. Detached from the Navy Yard, Portsmouth, N. H., and ordered to the Naval Magazine, Iona Island, N. Y.

DU ROSE, W. R., Medical Inspector. Commissioned medical director with the rank of commander, from June 20, 1903.

McCLANAHAN, R. K., Assistant Surgeon. Detached from treatment at the Naval Hospital, Mare Island, Cal., and ordered home with three months' leave of absence.

MORGAN, D. H., Passed Assistant Surgeon. When discharged from the Naval Hospital, Mare Island, Cal., will be granted three months' sick leave.

Married.

BALDWIN—VAN WORMER.—In Center Village, N. Y., on Wednesday, September 7th, Dr. Edwin C. Baldwin and Miss Juanita M. Van Wormer.

CHANCE—BEALE.—In Radnor, Pennsylvania, on Wednesday, October 14th, Dr. Burton K. Chance and Miss Maria Scott Beale.

CHISHOLM—LEVERING.—In Baltimore, Maryland, on Thursday, October 15th, Dr. Julian Chisholm and Miss Annie E. Levering.

DEGGETT—SMITH.—In Pittsburgh, Pennsylvania, on Thursday, September 24th, Dr. Ernest W. Deggett and Mrs. Jessie Nesbit Smith.

DICK—DONNELLY.—In Radnor, Pennsylvania, on Wednesday, October 14th, Dr. Clarence Dick and Miss Maude Sewell Donnelly.

EUBANK—SMILEY.—In Kansas City, Missouri, on Monday, October 5th, Dr. Ambrose Austin Eubank and Miss Dorothy Smiley.

HENRY—ENGLISH.—In San Francisco, California, on Wednesday, October 7th, Dr. Joseph Henry and Miss Louise English.

HOLLAND—TWESTEN.—In Philadelphia, Pennsylvania, on Monday, October 12th, Dr. Ernest E. Holland, of Prince Edward's Island, and Miss Theodosia S. Twesten.

KOONTZ—CORLEY.—In Baltimore, Maryland, on Sunday, October 11th, Dr. Leonidas A. Koontz and Miss Rachel J. Corley.

NORRIS—VOGT.—In Philadelphia, Pennsylvania, on Wednesday, October 14th, Dr. Richard C. Norris and Miss Grace Vot.

SINKS—MAY.—In Fort Bayard, New Mexico, on Wednesday, October 7th, Dr. Edward Dimmitt Sinks and Miss Edna Neville May.

ZIMMERMANN—KING.—In Brooklyn, N. Y., on Wednesday, October 14th, Dr. Victor L. Zimmermann and Miss Margaret King.

Died.

ABERDEIN.—In Syracuse, N. Y., on Sunday, October 18th, Dr. Robert Aberdein, in the fifty-eighth year of his age.

ALEXANDER.—In Conewago, Pennsylvania, on Tuesday, October 13th, Dr. H. M. Alexander, in the fifty-third year of his age.

BEARDSLEY.—In St. Louis, Missouri, on Saturday, October 10th, Dr. Leroy White Beardsley, in the thirtieth year of his age.

CARPENTER.—In San Francisco, California, on Saturday, October 3rd, Dr. George Carpenter.

CHAUVEAU.—In New York, N. Y., on Saturday, October 17th, Dr. Jean F. Chauveau.

DERIVAUX.—In St. Louis, Missouri, on Monday, October 5th, Dr. Armand Derivaux, in the fifty-fifth year of his age.

GAYMOND.—In Dedham, Massachusetts, on Wednesday, October 7th, Dr. George Osburn Gaymond, in the thirty-first year of his age.

Goss.—In Lakeport, New Hampshire, on Thursday, October 8th, Dr. Ossian W. Goss, in the forty-eighth year of his age.

HARANG.—In New Orleans, Louisiana, on Monday, October 5th, Dr. Dominick F. Harang, in the twenty-sixth year of his age.

HOOGAN.—In Helonan, Egypt, on Wednesday, October 7th, Dr. Frank Hoogan, of St. Louis, Missouri.

JOHNSON.—In St. Louis, Missouri, on Tuesday, October 6th, Dr. John Bates Johnson, in the eighty-seventh year of his age.

NOTT.—In West Newton, Massachusetts, on Saturday, October 10th, Dr. Albert Nott, in the sixtieth year of his age.

PALM.—In Cincinnati, Ohio, on Friday, October 9th, Dr. Otto Theodore Palm, Sr., in the eightieth year of his age.

PRATT.—In Washington, D. C., on Monday, October 12th, Dr. D. M. Pratt, in the seventy-fourth year of his age.

STONESTREET.—In Rockville, Maryland, on Friday, October 9th, Dr. Edward E. Stonestreet, in the seventy-fourth year of his age.

Births, Marriages, and Deaths.

Born.

FREY.—In Buffalo, N. Y., on Saturday, October 10th, to Dr. and Mrs. George Frey, a daughter.

MERRIMAN.—In Scranton, Pennsylvania, on Thursday, October 8th, to Dr. and Mrs. George C. Merriman, a daughter.

New York Medical Journal AND Philadelphia Medical Journal. CONSOLIDATED.

A Weekly Review of Medicine

VOL. LXXVIII, No. 18.

SATURDAY, OCTOBER 31, 1903.

WHOLE NO. 1300.

Lectures and Addresses.

PRESIDENTIAL ADDRESS TO THE MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.*

By EUGENE F. CORDELL, M. D.,

BALTIMORE.

The first prompting of my heart on this occasion is to express to you, my colleagues of this ancient and honorable faculty, my deep appreciation of the honor which you have so unexpectedly conferred upon me in electing me to this important office, and I utilize the first public opportunity for obeying this impulse. It is indeed a high distinction, to occupy a chair that has been filled for over a century by the most eminent members of our profession in this State. Nay more—it is an incentive to the highest exertion, to know that by your unanimous designation I am treading in the footsteps of such men as Upton Scott, Philip Thomas, Ennalls Martin, Richard Sprigg Stewart, Joshua I. Cohen, Nathan R. Smith, Christopher Johnston, Frank Donaldson, Richard McSherry, John R. Quinan, and the distinguished gentlemen who more recently have adorned this position. While I cannot expect to reach the lofty height of influence and usefulness attained by these heroic figures, I do claim an allegiance to professional interests and an earnest desire to promote them, not less than any one of my predecessors. So that if the office shall appear to have lost any of its importance and effectiveness in my hands, it will be due, not to a lack of earnest purpose to advance your interests, but solely to those limitations which Nature puts upon each of us and to which we must submit.

We have met in semiannual session, on this beautiful day, in the midst of this lovely mountain scenery and at this delightful season of the year, to consider matters of vital interest, not only to us as physicians, but to the citizens of the entire State. We are to consider at this meeting some of the most pressing questions of the hour. Your

attention will be drawn, for example, to the diagnosis and prevention of typhoid fever, a subject of ever fresh and burning interest to us; you will hear the new code of ethics expounded by one who took a leading part in its framing and adoption; you will hear from specialists their views upon the State care of the insane and the prevention of blindness; the secretary of the board of examiners will discuss the alterations needed in the medical practice act; while reports will be made by other colleagues who have had those matters under special consideration, upon the organization of the county medical societies as affiliated parts of this society, and upon the amendments needed in our own constitution to put us in thorough accord with the American Medical Association. Besides these, we shall have a series of papers more strictly relating to medical and surgical practice. Our most earnest deliberation and wisest counsel are called for in the discussion of these matters. The fact that so many great questions are upon our programme shows that we appreciate our responsibilities and are prepared to shoulder them bravely.

Gentlemen, the Medical and Chirurgical Faculty has long since thrown off the swaddling clothes of infancy; it has left behind the inexperience and fickleness of youth; it has passed safely through the trying ordeal of middle age; and it has reached the full maturity of settled and experienced manhood. Its broad shoulders, I trust, are sufficient for any burdens that it may be destined to bear. Said a physician to me at the surgeon-general's library, in Washington, the other day: "You have a great society in Baltimore, one that ranks with the College of Physicians of Philadelphia; you have a great future before you." These are encouraging words from a high source. Let us carefully provide what further is necessary in the equipment of our society to fit it more thoroughly for the work it has to do.

Now, let me ask with all frankness and earnestness, do we realize here that unity of purpose, that spirit of cooperation, that constant attitude of self-sacrifice, which are necessary to give full effect to our actions? Just think what a power

* Delivered at the semi-annual meeting held at Pen Mar, Md., September 24, 1903.

could be exercised in this community by our large membership, composed of such material as it is, if all worked together in perfect concert! How we could elevate professional character, how we could mould public opinion, how we could influence legislation, how we could promote measures for the relief of suffering and the protection of health and life! And how insignificant appear the differences which often divide and estrange us, when compared with the settlement of such vital questions as those, for example, that will come up for consideration here!

This is a matter of such incomparable importance that I desire to lay the utmost stress upon it. Some men seem to be born to oppose those things which their fellowmen approve and desire. Some seem to have an infatuation for stirring up strife. Some are contrary from pique, pride, prejudice, or ignorance. Some "lean and hungry Cassius" cannot follow where other men begin. Various are the motives of human action, and it is too much to expect that any millenium of disinterestedness is at hand; the utmost I can hope, perhaps, from anything I can say, is that my words may reach the ears of some who may be strengthened in the resolution to rise above all selfish motives in deciding the questions that will come before us from time to time in this faculty.

I now most earnestly call your attention to the pressing need of larger quarters for the purposes of our faculty. With the late rapid growth of our library and increase of our membership, we have outgrown our home and are being crowded out. Not only are the shelves full to repletion, but there is no room for more shelves. The basement designed for a banquet hall, is packed with duplicates and with books belonging to the exchange of the American Association of Medical Libra-

rians, of which we are the custodians. Where to put new books that are coming in in ever increasing numbers is a matter that is causing the greatest anxiety to the library committee. It has been suggested that shelves be erected in the meeting hall, but that seems out of the question unless we are prepared to give it up entirely to the uses of the library, in view of the fact that it already contains only 175 seats, and we have a membership of over 700. The fact is, we have reached a crisis in our affairs, an event that has been foreseen by some of us for some time past. It was this that induced me to bring up a motion at our last annual meeting for the creation of a woman's auxiliary to assist in procuring funds for a new hall. The experience of our brethren in Brooklyn was cited in favor of the plan, over \$17,000 having been raised by women there. My proposal was referred, with power to act, to the executive committee, where I presume it will come up for consideration this fall. In the discussion that took place upon my motion, a member suggested that we should appeal to the Legislature for assistance. But even if we succeed there (and the Legislature will be overwhelmed with such applications) is it likely that we shall get from it all we want? While building, we should adopt no half-way measures. We should build for the next hundred years at least, and such a structure as we need—such as the profession has in Brooklyn, which, I am informed by those who have visited it, is a model for our adoption—will cost us at least \$100,000. It is likely, therefore, that we shall need all the help we can get from any and every source—ourselves, the citizens, the women, the Legislature. So pressing and vital is this matter, that it should be in the hands of a special committee, so that it can

PUBLIC MEDICAL LIBRARIES IN BALTIMORE.

Name.	Number of Volumes.	Number of Duplicates.	Number of Pamphlets.	Number of Current Journals.	Librarians.	Is it open to Profession for Reference.	Charge therefor.	Is it open to Profession for Borrowing.	Charge therefor.	Remarks.
1. Med. & Chir. Fac....	13260	2000-3000	4758	153	2	Yes.	None.	Yes.	\$6	Particularly rich in encyclopædias, systems of medicine, sets of journals and transactions and in new books.
2. J. Hopk. Hosp.....	8000	500	Thousands.	325	1	Yes.	None.	No.		Rich in current journals, and transactions.
3. Univ. Md.....	2500	Few.	1000	25	1	Yes.	None.	Yes.	\$2	Rich in rare old works.
4. Woman's Med. Col..	500	None.	200	15		Not fully organized.				
5. Col. P. & S.....	150	None.	None.	Few		Not fully organized.				
6. Enoch Pratt. Lib....	1130	None.	None.	11		Yes.	None.	Yes.	None.	
7. Peabody Lib.....	650	Few.	125	9		Yes.	None.	No.		
8. Total.....	20806	2500-3000	10000-12000	550						

receive immediate and constant supervision, and I would suggest that disposition of it.

I have appended to this address the tabulated results of some investigations recently made by me as to the public literary resources of the profession in Baltimore. They have a practical relation to us as physicians and justify, I think, this presentation of them.

Original Communications.

CONSERVATIVE GYNÆCOLOGICAL SURGERY; ITS PRACTICAL RESULTS.*

By HENRY C. COE, M. D.,

NEW YORK.

The word "conservative" has suffered a change of meaning, especially in connection with its use in medicine. At one time no higher praise could be applied to a surgeon than to call him a conservative man; later, the same expression often implied timidity or old fogyism. Gynæcologists seem to have revived the original definition of the word, and employ it as synonymous with "preservative." That it has been used rather loosely must be generally admitted. Baldy¹ expressed this quite aptly when he said: "I have no objection to conservatism when I know what it means."

The writer feels a peculiar interest in the development of conservative methods in pelvic surgery, because he recalls his own well-meant, but juvenile, attempts to preach moderation some fifteen years ago, at a time when the wave of operative enthusiasm which swept over the land threatened to bear away on its crest all tubes and ovaries suspected.

Epidemics in surgery furnish a psychological study almost as interesting as the history of Salem witchcraft, and not less incomprehensible to those who were once affected by them. One does not wonder that gynæcology has fallen into disrepute as a specialty—if indeed it is destined to remain one—considering its vagaries during the past twenty years. For one I have always believed that the gynæcologist should stick to his proper field—obstetric and gynæcic surgery—and should seek to develop his own line of work (in which there is still ample room for improvement), instead of trying to make the uterus the stepping stone to general surgery.

In discussing the subject of conservative surgery of the tubes and ovaries I feel that I am within a domain which belongs peculiarly to the specialist. Sufficient clinical material has now been accumulated on which to base positive conclusions, al-

though it must be admitted that there is still a wide difference of opinion as to the ultimate value of the various procedures. To refer only to the work of American operators, it may be stated that the cases tabulated by A. P. Dudley, in a paper presented at the American Medical Association, number 2168, with an immediate mortality of 1 per cent., including only those in which the patients were traced and their after histories were obtained. It is safe to infer then that in this country alone at least twice as many conservative operations on the annexa have been performed during the past ten years. Unfortunately there always seems to be a strong personal equation in gynæcological statistics, due partly to the well-known enthusiasm of this class of surgeons, and partly to the many special operative methods and modifications, each of which has its warm adherents. The writer, while constantly applying the principle of conservatism in his abdominal work during the past eight years, has never yielded to the popular enthusiasm, but has always maintained that too much emphasis has been placed upon the advantages of the method, while the failures and less satisfactory, remote results have been lightly touched upon. The latter were set forth by him in a paper in the *Transactions of the American Gynæcological Society*, 1898, and elsewhere. A somewhat extended experience since then has only served to confirm the views then expressed.

The contrast between old and new methods is striking. The writer has a painful recollection of the usual practice of the cœliotomist on opening the abdomen for real or supposed disease of the ovaries. The presence of a few slight adhesions, prolapse, moderate enlargement or atrophy, so-called "cystic degeneration" of the ovary—any one of these conditions was regarded as a sufficient excuse for the removal, not only of one, but of *both* organs. The patient was willing, the surgeon was more than willing, and what more was required? But, how often both regretted the hasty decision, when every gynæcologist's office was haunted by women who found too late that they had exchanged minor physical ills for distressing post-climacteric phenomena, for which there was no cure except by the lapse of time!

With a more perfect knowledge of the normal and morbid anatomy of the annexa there came a reform, and healthy or slightly diseased ovaries were spared; but with the visits of Jacobs and Segond there was another wave of radicalism, and vaginal hysterectomy for actual or supposed disease of the annexa had a vigorous, though short-lived, popularity. Following this was the gradual development of so-called conservative surgery of the annexa, which, at first, under the influence of Pozzi,

* Read at a meeting of the New York Clinical Society, April 21, 1903.

¹ *Trans. of the Amer. Gyn. Soc.*, vol. xxii, 1897.

was in danger of running into meddlesome interference with ovaries which should have been let alone. After the experimental stage the indications and technic became more clearly defined, and we seemed to have found the ideal method of dealing with the long-suffering organs. But there are already indications that our faith may be again unsettled.

As you know, the objects aimed at in preserving healthy (or at least macroscopically normal) portions of partially diseased ovaries are three-fold:

1. In deference to the strong wishes of the patient, especially if she is a young girl, or a married woman in the prime of life.

2. To preserve the function of menstruation, and thus to avoid the physical and psychical disturbances attending the artificial climacteric.

3. To favor possible conception.

The second indication (continuance of the menstrual function) has always been the main point which the writer has had in view in his conservative work, since hospital patients, as a rule, are either little concerned about the question of future pregnancy, desiring first of all to be cured of their long-standing troubles, or are positively averse to it. His own experience with regard to the frequency of conception differs widely from that indicated by Dudley's statistics (10 per cent.). Lastly, the occurrence of pregnancy after certain conservative operations (whether the abdominal or the vaginal route is employed), in which the uterus is either suspended or fixed, or is perhaps bound down by adhesions, is not a result to awaken pleasant anticipations. While gynæcologists are generally agreed as to the advisability of conserving normal ovarian tissue whenever it is possible, even after extirpation of the uterus, in order to avoid the distressing post-climacteric symptoms, atrophy of the vagina, etc., they differ widely as to the limits within which such conservatism should be practiced.

Thus, some are satisfied with merely separating adhesions, and not interfering with ovaries which show a slight departure from the normal; or, if the ovary and tube are prolapsed, with suturing them at their proper level in the pelvis. Others (following the lead of Pozzi) puncture with knife or cautery the microcysts, which are really only slightly enlarged ovisacs, alleging that there is some mysterious curative action upon the sclerotic tissue within the stroma. Catheterization of constricted tubes, incision and suture of occluded ends, are legitimate procedures which commend themselves to all.

Most operators excise cysts or hæmatomata the size of a marble, splitting the ovary, if necessary, to reach a central cyst. From a third to two-thirds of the organ may be removed if it shows general

cystic degeneration or cirrhosis, an attempt being made to preserve stroma which appears to be normal and contains Graafian follicles. Naturally one has no positive criterion by which to decide this question offhand. The distal third or half of a tube, the remainder of which is of normal size or calibre, is usually excised, and the mucosa is sutured to the peritonæum in order to maintain its patency. This is a common practice in cases of hydrosalpinx not involving the entire tube. Here again, the operator must judge of the integrity of the portion preserved entirely by its macroscopical appearance, and, moreover, he knows nothing about the character of the contained fluid. The writer at one time had bacteriological examinations of fluids made during the operation and was governed largely by the findings in his decision regarding questions of radical or conservative work, irrigation, drainage, etc.

These are the ordinary limits of the operations in question. Bolder surgeons have advocated resecting small dermoids and abscesses of the ovary, irrigating and draining pus tubes, and either leaving them *in situ* or excising portions of them. You will admit that this is a wide departure from the former routine practice of extirpating the uterus and annexa in such cases. While the writer has saved one or both ovaries, or portions of them, in cases of extensive pelvic supuration, with the most satisfactory results, he has always excised the diseased tubes from the uterus, believing that they are foci of infection, present and future, which should not be allowed to remain because there may be a remote possibility of conception.

The interesting question of abdominal section for the relief of sterility alone, without other symptoms or appreciable pathological conditions, has been raised by Polk and Goffe, but thus far has not met with much approval, except as a *dernier ressort* and in women with a clear history of former gonorrhœal salpingitis. Such operations as have been performed with this indication have consisted in separating adhesions around the ovaries and tubes and catheterizing the latter or performing "salpingostomy."

Having reviewed briefly the present status of the operation and the various procedures followed, we may now pass to a consideration of the actual remote results.

Hospital patients are notoriously hard to trace, even a few months after operation, unless they return to the outdoor department of the hospital. This applies especially to gynæcological cases. If cured they usually disappear for good; if they do not experience the promised relief they promptly go elsewhere. Hence it happens that patients

whom we regard as cured turn up in other hospitals, and conversely we not infrequently have opportunities of revising the unsuccessful work of our neighbors. The writer has been fortunate in keeping most of his unsuccessful cases at Bellevue under observation (thanks to the zeal of his able assistant Dr. Studdiford), so that he is able to state that in over five per cent. of his conservative operations he has been obliged to reopen the abdomen, in order to effect a cure of the patient. From his observation of the similar work of other surgeons he believes that this represents fairly well their common experience. Those who employ the vaginal route report better results (Goffe less than one per cent.). One cannot accept the sweeping statement of Joseph Price, that the necessity for a second operation implies want of skill or imperfect technic on the part of the first operator. Certain unavoidable complications follow the most careful aseptic work.

You will infer from this that the results of conservative surgery of the annexa are not all that could be desired from an anatomical standpoint.

To summarize briefly, it may be said that the chances of a recurrence of the original pathological conditions vary according to the character of the adhesions and exudates found at the first operation and the extent of the denuded surfaces left within the pelvis. We have not yet discovered any certain method of preventing the reformation of adhesions, or predicting in what cases they will give us future trouble. If pus is present and foci of infection are left, the result is even more doubtful, in spite of the gauze tampon.

On the other hand, we are often agreeably disappointed to find that patients from whom we have removed a double pyosalpinx, but have left the ovaries, make a perfect recovery, both anatomically and symptomatically. Of course, the possibility of reinfection is always present, and is frequently noted in Bellevue patients in whom portions of tubes are left. With resection of the ovaries there is always the risk of either cystic degeneration or atrophy of the remaining stroma. The writer has reported three cases of secondary coeliotomy for the removal of cystomata developing from a bit of ovarian tissue left in the pelvis. Martin and others have noted the same results. Doubtless this is favored by the circulatory disturbances attendant on the cutting off of the vascular supply by ligation, or by the presence of later exudates. Atrophy, with resulting amenorrhœa, we have noted in several promising cases, though with an absence of the climacteric phenomena which follow entire removal of the ovaries.

Resection of the tubes, in the writer's opinion, is rather an uncertain procedure, though one

of his patients, who has only half of one tube and one third of the corresponding ovary, has borne two children since the operation. Landau regards it as a surgical error to reopen the distal end of a gonorrhœal tube which Nature has sealed up. He states that he has personally known of fatal cases of sepsis following salpingostomy, and thinks that the reason why more women do not die is that the new ostium is promptly closed and surrounded by fresh adhesions. Certain it is that one can never be sure of the bacteriological character of the contained fluid. Our practice in every doubtful case is to exsect the entire tube, suturing the uterine wound and broad ligament with continuous catgut. The ovaries are then dealt with separately and are secured near the uterine cornua in order to avoid prolapse and fixation in the cul-de-sac by fresh adhesions. But even then we have been obliged to remove them subsequently on account of persistent pain. The number of secondary operations, generally involving extirpation of the uterus, is a proof of the uncertainty of the prognosis.

Appendicular complications are not rare after these partial operations, and may require surgical intervention, an argument in favor of appendectomy as a routine measure in the majority of cases in which the abdomen is opened for pelvic disease. "The idea is a fascinating one that we can deal with abnormal conditions within the pelvis just as a jeweler repairs a damaged watch; that by removing a few adhesions here, excising a little diseased tissue there, restoring the patency of an occluded duct, we can readjust the delicate mechanism and, as it were, restore lost function." But the problem is not so simple as it would appear, as shown by the after results.

As regards the relief of symptoms, the results may be equally disappointing. Pain is the symptom for the relief of which the patient submits to operation. In the writer's experience patients entering a general hospital with severe pelvic lesions are little concerned about the question of menstruation, ovulation, and subsequent pregnancy. The persistence of pain, both constant and periodical, after operation is always disappointing. It is small satisfaction to a woman to feel that her ovaries are preserved if she must look forward with dread to the recurrence of severe dysmenorrhœa. Under these conditions she is far more apt to reproach the surgeon for his conservatism than to blame him for being too radical, especially if she is compelled to submit to a second operation. In private practice, too, the writer has found that, after stipulating that the ovaries shall be spared under all circumstances, the same patient (with the consistency of her sex) will afterward ask: "Why did you not re-

move everything when you had the opportunity?"

Disturbances of menstruation are common after partial removal of the ovaries—amenorrhœa, scanty and irregular flow, but more often profuse menorrhagia. We have been obliged to remove the uterus in at least a dozen cases for the relief of hæmorrhage alone, which had resisted repeated curetting and threatened to sap the patient's vitality. The organ was atrophied in several instances and serial sections were examined with negative results, proving that the cause lay outside of it.

The writer's results as regards the cure of sterility have not been so brilliant as those reported by Dudley, since less than three per cent. of his patients have become pregnant after resection of the tubes and organs. There is always room for doubt as to how far conception is favored by the intrapelvic work, and how much is due to the accompanying operations—the preliminary curettement, repair of the cervix and pelvic floor, restoration of the uterus to its normal position, etc. Statistics show that quite as many women with minor ovarian and tubal troubles conceive after curettement alone. Enough has been said to justify the statement that the surgeon should be exceedingly cautious about promising too much from conservative operations, since one can never be sure, first, as to the conditions which one will find within the pelvis; and, secondly, as to the pathological changes which may follow one's well-meant attempt to save apparently normal tissues. To quote again from Baldy: "True conservatism is what is for the best interests of the patient." (*Trans. Am. Gynec. Soc.*, 1893). Hence it is unwise for the gynecologist to bind himself to follow any prescribed course after opening the abdomen. The general surgeon certainly would not allow himself to be thus hampered.

The writer fully believes in the propriety of preserving the ovaries, even if some risk of a second operation is run, but the question naturally suggests itself: Is it not better to let a doubtful ovary entirely alone, rather than to tinker with it, and thus perhaps to invite the development of the very cystic degeneration or cirrhosis which we fear? In spite of the amount of research which has been bestowed upon the minute anatomy of this fascinating gland, we have not yet defined exactly the border-line between the normal and pathological, and how can we unhesitatingly decide this point at the operating table? The writer asked this question eighteen years ago, and it is still pertinent.

In spite of their tendency to take up new fads and to carry them to extremes, gynecologists have reason to be proud of the results of their persistent search for the truth. The work of generations of earnest men cannot be overestimated.

Conservatism has come to stay. We believe that with more perfect technic and wider experience the results will be even better than at present. The subject is too complicated to be worked out by one generation. In this, as in other departments of surgery, our failures will be our most valuable legacy to those who succeed us.

THE DIAGNOSIS OF HEAD INJURIES.*

By CLINTON B. HERRICK, M. D.,

TROY, N. Y.

Inasmuch as the head contains within its precincts the brain, that organ which gives life and function to every part of the body, any injury done to this region must be seriously considered, for the delicate structures therein contained make it possible for even a slight blow upon the head to inflict very severe conditions, the ratio of probable disaster increasing many fold in the more severe injuries.

It is with deep appreciation of the importance of injuries to the head, therefore, that I shall presume to delineate some of the principal features of the subject. There is scarcely any other class of injuries that present so many peculiarities as to the relation between cause and effect as head injuries, and after but a few years in practice one will recognize that an injury, insufficient in force to mark the skin, may be followed by a complete destruction of the brain; while, on the other hand, it is to be noted that a crushing force may carry away much of the brain substance and yet be followed by a complete restoration to life and function.

With your permission we will briefly review the anatomy of the head, noting from without inward, the various structures, and in doing this consider the head proper, or all that portion of this region above a line drawn from the base of the nose to the occipital protuberance. First, the skin, which is covered for the greater part with thick hair, and with the subcutaneous tissues, is tough and cushion like, though inelastic. Beneath this are the occipitofrontalis muscle and fascia, this aponeurotic layer and fibrous muscular tissue is freely supplied with large and tortuous blood vessels. Next, the preperiosteal and true periosteal layer, which is tough and firmly attached to the skull proper. Then we have the osseous vault, made up of several smooth-surfaced bones dove-tailed together, buttressed upon and against a foundation of irregular bone area, the whole construction being peculiarly unyielding, yet elastic; strong, though showing lines of considerable weakness. The structure of the bones of the vault shows compact layers on the outer and inner surface, with a cancellous arrange-

* Read before the Rensselaer County Medical Society, February 10, 1903.

ment between, thus giving to the whole structure of the vault a peculiar resiliency or elasticity. The skull base shows quite thin compact layers, a slight amount of cancellous structure; it is pierced by numerous foramina of considerable size; possesses no elasticity whatever, and presents lines of but slight resistance. Lining the inner surface of the bones of the skull cavity, is a tough inelastic fibro-serous tissue, the dura mater, between which and the bone several large arteries ramify. Now, filling this inner skull cavity, resting upon the bony floor below, and supported by offshoots of the dura mater, nearly but not quite reaching the limits of the roof of the cavity, lies the brain, enveloped closely by thin vasculoserous membranes, the pia mater and arachnoid, bathed in the serous fluid in quantity sufficient to fill up the spaces around and about the brain surface and inner walls of the skull cavity.

My purpose in thus picturing the relations of the anatomy of the head is as follows: To distinguish the various superstructures that may, individually or collectively, be damaged by an injury to this region; and also to note the many textured protections that give a defense to the brain as impact-disseminators; also to be able to appreciate just how the tissues are affected and their relations disturbed in the various injuries that may be inflicted upon the head; lesions that are one or another, or combinations, of the following, in which order we shall consider them in this paper, namely: Contusion of the scalp; wounds of the scalp; fissured fractures of the vertex; fractures of the base; depressed fractures of the vertex; concussion of the brain; laceration of the brain; and hæmorrhage.

CONTUSION OF THE SCALP.

The head receives a blow from the blunt surface of a body and in the impact the compression of the capillaries between this impacting body and the skull ruptures them, permitting an effusion of blood in the surrounding tissues. Withheld by this resistance, the effusion soon becomes circumscribed, and marks itself by a bulging and swelling of the part. The damage being local and superficial, we do not expect to find any sign or symptom referable to elsewhere. I call your attention to Fig. 1, to note the condition as it appears, and also to take note that, in palpating such, one will often be led into deception by the apparent depression in the skull: but the condition that gives an almost certain touch of a sharp edge to the examining finger, is in reality the abrupt margin of the normal hard edge of the scalp against that of the soft contact with the bed of the effusion. No constitutional symptoms are ordinarily observable. That the impact causing a small contusion upon the scalp may have also injured the brain without damaging any of the in-

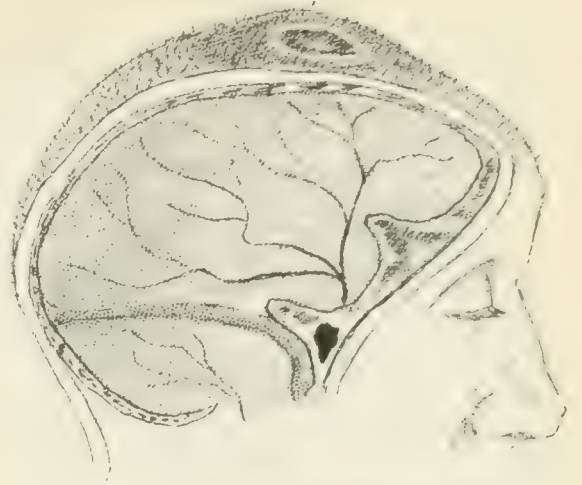


FIG. 1. Contusion of scalp, showing hematoma.

intermediate structures, may be noted in the case where Mr. J was knocked down, striking on his back with a thump on the head. Slight contusion was the only apparent result. He followed his ordinary occupation, subsequently to this, for a week or ten days. Then he began to have dizzy spells, rapidly followed by convulsions; coma, for a day or two; and finally death. Autopsy revealed total absence of fracture of the skull or injury to any intermediate structure, but a slight area of softening in the brain marked the fact of the injury inflicted. Fissured fractures and concussion of the brain are also seen as an accompaniment of contusion of the scalp. However, in case of these serious conditions coexisting, we are blameless in overlooking them if the symptoms liable to be produced by such, should not make themselves known during the first few hours subsequent to the receipt of the injury.

WOUNDS OF THE SCALP.

A sharp edge, or even a plane surface, if impinging with sufficient force against the skull, will produce a solution of continuity in the superstructures overlying the skull and in extent of depth and area depending upon the nature and force of the impact. Here the capillaries and smaller vessels are divided, and if the wound is at the point of crossing of a large artery, it also is wounded. In consequence thereof, bleeding more or less severe occurs at once, the blood escaping through the open wound to the surface. So far as this scalp wound, *per se*, is concerned, the damage is local (see Fig. 2).

While the diagnosis is plain, it should not rest upon this material evidence of wound, without further observation. Either fissured or depressed fracture of the skull, concussion or a laceration of the brain, may figure in the case. While, in the first instance of contusion of the scalp, it will be fair to presume in the absence of sign or symptom

beyond those material, in the fact of the presence of the wound, and subjectively in slight headache immediately following its infliction, that no lesion of the deeper structures has been sustained. However, inasmuch as, on account of the force having

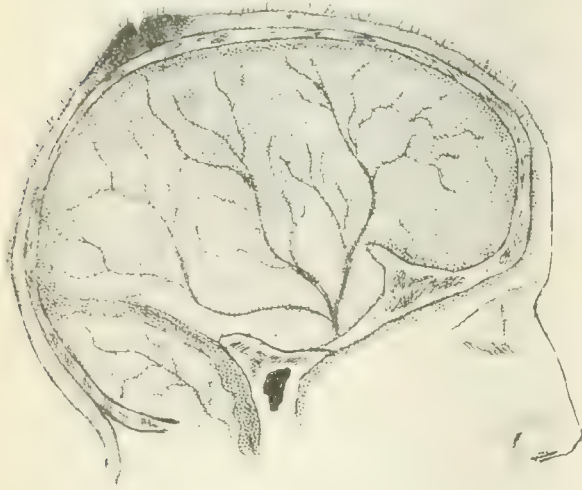


FIG. 2.—Scalp wound, with ecchymosed area.

been sufficiently severe to tear the superficial structures apart, the possibilities of still deeper damage are imminent, we can only hold to the idea of expectancy until time determines its status, first satisfying ourselves beyond a reasonable doubt by a thorough examination that no such deeper lesion exists.

For example, a woman received a blow on the vertex, which, in causing a large scalp wound, did not produce a single symptom or sign of any severe or extensive lesion. She went about in full possession of her faculties for several hours, and it was subsequently discovered that a large depressed fracture was present, with a great loss of brain substance. Again, a man was struck in the head by a locomotive, walked several miles, and came into my hands with apparently a slight scalp wound. A depressed fracture was discovered, although no symptom whatever had been complained of during an interval of several days.

We should always expect to find a scalp wound accompanied by a certain degree of headache, vertigo, and possibly a short period of partial or total unconsciousness. All these symptoms, however, disappear, leaving no ill after effects. This may be expected as the direct effect of a blow caused by the disseminating force distributing itself in this wise, and disturbing the nerves or brain molecules, no more than this.

FISSURED FRACTURE OF THE VERTEX.

This is caused by the direct violence of a blow to the skull, and is usually accompanied by a wound in the soft parts, directly over the site of its bony

lesion. Objectively, it is most difficult to detect, as frequently the pericranium is uninjured, thus covering and masking the osseous defect. On the other hand, when it is unaccompanied by any opening through the soft parts, the objective signs are impossible to determine. Only, therefore, by the appearance of indications of injury to the brain through the shock or force of the blow, may we be enabled to presume the presence of such a lesion. It has been incidentally found that an arterial trunk in the dura has been torn in conjunction with the fissured fracture, and a continued hæmorrhage between the dura and the skull soon develops subjective symptoms pointing to more than a simple condition. In case of an open wound, the line of fissure can ordinarily be detected by passing a sharp-pointed probe over the surface of the skull, the crack being noted as the point of the probe jumps across it. If such is exposed to view and the blood wiped away, an indelible red line will be found to mark the line of fissure, and blood may even be seen oozing through the crack.

Distinguishing such a crack from a line of suture, the latter will not present such an indelible line, but may be wiped clear. The incomplete coma of concussion will usually accompany such a lesion, and the failure of this symptom to disappear in a few hours or the oncoming of more profound coma or convulsive states renders paramount the necessity of establishing a positive diagnosis by means of a complete exposure of the skull at the site of contused or lacerated soft parts, so that the proper course of treatment may be outlined.

FRACTURE OF THE BASE OF THE SKULL.

These fractures are caused by direct violence, such as occurs when bullets or sharp objects fracture through the impact delivered in the roof of the mouth or nose; or by indirect violence, through force traveling along the spinal column delivered to the base of the skull; or by an extension of the fracture of the vertex in the region of the base. These fractures, which are classed as fissured, take their course along the lines of weakest defense, parallel with the line of impacting force, irrespective



FIG. 3.—Lines of bursting force in basal fractures (Wahl).

of the line of sutures (Fig. 3). The diagnostic points to be observed in fracture of the base are neither clear nor definite. It is ordinarily noted that there is a condition of stupor, from which the individual may be aroused for a moment, but with an irritable demeanor, and relapsing again into coma. There is an oozing of blood from one or both ears, at times also from the mouth or nose. The pulse rate and temperature remain practically normal. The respiration slow, becoming more stertorous. All these subjective symptoms are due to the injury done the brain, presumably a concussion, while the oozing of blood may be from the tympanic membranes, or may come from within the skull, and be due to the rupture of the sinus in the region of the petrous bone. If the tympanic membrane is not ruptured, the blood may pass through the Eustachian tube into the nose or mouth. The cerebrospinal fluid may also escape in the same wise when the dura and arachnoid are torn. While this latter is thought to be pathognomonic of fracture of the base, fluid may exude after an injury to the head without fracture, being blood serum from the mastoid, as well as fluid escaping through the ruptured drum membrane. If the anterior fossa of the base is fractured, blood may also escape into the orbit and produce more or less extensive subconjunctival ecchymosis.

When the body of the sphenoid or cribriform plate of the ethmoid is fractured, blood or cerebrospinal fluid may escape into the nose and mouth. If the posterior fossa is considered the site of lesion, extravasation of blood may be seen about the mastoid region or the back of the neck.

While these hæmorrhages may be due to ruptured extracranial structures, the succession of sanious and serous fluid oozing from the cavity becomes more significant. In very exceptional cases of severe fracture of the base with separation of the fragments, there may be oozing of brain matter from the ear. This is absolutely pathognomonic. Charles Phelps reports the following case: "Man found unconscious at foot of stairs, hæmatoma above and behind right ear, severe hæmorrhages from right ear ceasing in five hours. Somewhat later, hæmorrhage from right nostril. Two days later, bloody discharge from the right ear, with brain matter oozing from perforation in the drum membrane. Recovery." Senn mentions paralysis of facial muscles, loss of vision, and hearing as being of value in noting the seat of fracture. However, these signs must be considered as possible to determine only at a later period when the individual has returned to consciousness. Inasmuch as they are produced solely by a material injury to the brain, the assumption that the fracture is coexisting is not tenable.

DEPRESSED FRACTURE OF THE VERTEX.

This lesion, caused by direct violence to the vertex, is seldom unaccompanied by a wound in the soft parts, for if the force is severe enough to produce a fracture, it first drives its way through the overlying structures, and thus makes an open door, through which the diagnosis of depressed fracture is quite easily made. Clearing away the débris and fluid, the sharp edges of the fractured bone are visible, or can be followed by the examining probe, and the amount of depression determined. As these fractures are frequently comminuted, the same procedure will disclose this state of affairs. The dislodgment of the fragments of bone downward, forces upon and otherwise injures the membranes of the brain as well as this organ itself, giving rise to an immediate and serious condition of affairs, in hæmorrhage from the torn vessels in the dura and brain, and laceration of the brain substance (Fig. 4). Temporary arrest of

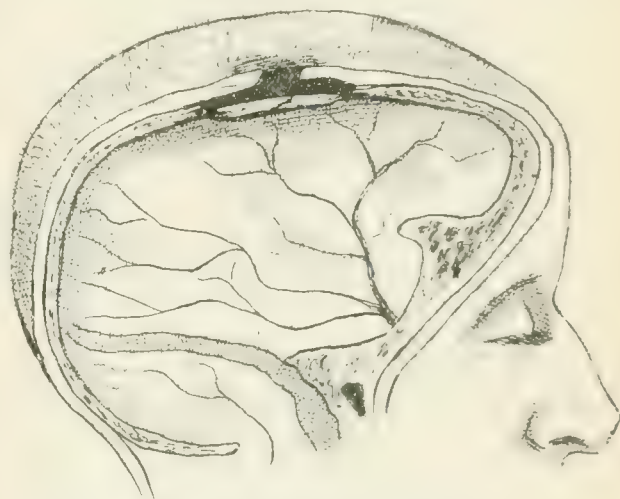


FIG. 4.—Compound depressed fracture of vertex.

function ensues at once in the region injured, and the various distributive points mark this feature. Whether or not actual lesion of the brain is produced, the shock of the blow will cause unconsciousness for a longer or shorter time, according to the damage done. The hæmorrhage may be confined to the subdural spaces, leading to a condition of profound stupor, stertorous breathing, slow pulse, irregular pupils, and convulsions. It is possible for a depressed fracture with all its concomitant symptoms to be produced without any lesion at all of the soft structures of the scalp.

Phelps reports a case where, with temporary unconsciousness and no other primary general symptoms, the patient went on for ten days with restlessness and slight delirium, and on the fifteenth day slight general convulsions, and died on the following day. Autopsy revealed a depressed fracture with a purulent effusion over the anterior brain surface.

The hæmatoma of these parts, as noted in contusion of the scalp, is liable to be present, masking the fact of the fracture, although the persistence of the coma, stertorous breathing, disturbances of motion, and other general symptoms, aided by a careful examination externally, marks the true lesion. Rather than cut down upon such a suspected condition, it is better that a sterile needle should be passed down to the surface of the skull and across the point of suspected fracture, when its presence may be readily proved.

The foregoing conditions of contusion of the scalp, wounds of the scalp, and fractures of the skull are in themselves of simple nature, and of no vital consequence. It is only the fact that the brain lies contiguous to them, and receives the shock simultaneously with the injury, that renders any of these conditions serious when such complication and disturbances of the brain coexist.

In order, therefore, that we may trace the effects and consequences of these extraencephalic injuries, we shall consider the disturbances which may be found in the brain, and of these conditions, that of concussion, as it is generally termed, will first be considered.

CONCUSSION OF THE BRAIN.

Concussion of the brain was for years assumed to be a condition wherein the brain suffered from a shaking up, being due to a shock or blow received by its bony envelope, the skull, and no actual damage being done to the organ itself. That such a state may ensue, we still believe, yet it is probably only known in those cases where but slight headache, dizziness, or lapse of consciousness follows such a blow, the return to full vigor rapidly following. As looked upon to-day from the symptoms classified under the head of concussion, it is believed that contusion of some part of the brain exists to a greater or less degree, causing symptoms, along the same lines, of variability and severity. Persons suffering such injuries exhibit first a period of unconsciousness, appearing simultaneously with the blow, and lasting more or less completely for from several hours to several days. If the contused area is slight, there will be but a slight elevation of temperature, a moderate increase in the pulse rate and in respiration; the pupils appear unaffected during the intermittent periods of full consciousness, and the patient complains of headache, vertigo, restlessness, irritability, with, occasionally, delirium. This state gradually disappears and normal relations are finally established. When the contusion is more severe, the foregoing conditions will be exaggerated, the temperature rising to 103° or 104° F., while the pulse and respiration correspondingly increase and motor symptoms prevail to some extent. Con-

vulsions are also occasionally noted. A return of the temperature to a lower level, with an alleviation of all other symptoms noted above, marks these cases as those of contusion without laceration.

LACERATION OF THE BRAIN.

In laceration of the brain we always have contusion or concussion as a concomitant condition, while, in addition, on account of the torn tissues, intradural hæmorrhage adds its influence to the disturbing factors. Here, we have the most severe lesion, which evidences itself by complete coma, and a temperature first subnormal, then rapidly increasing. The pulse increases in frequency and loses in force, respiration grows irregular, with stertorous breathing, which becomes more pronounced until the "Cheyne-Stokes" type is noted. General or local convulsions, muscular twitchings or muscular rigidity, are of frequent occurrence, while loss of sphincter control is almost pathognomonic of laceration of the brain.

The persistence or prominence of any one or any group of symptoms noted above will indicate the locality in which the lesion has occurred, and in this wise, will become of particular value. The loss of control of the sphincter and the rise in temperature are quite positive evidence of the fact of laceration, while the special form of convulsive twitching or rigidity will mark the location of the trauma. An individual case may be observed as presenting a train of mixed symptoms in which, through the study of localization by exclusion, it may be noted that one region of the brain may have suffered severe laceration, while in another there may be simply a contusion, the prominence and persistence of the former condition coming to the front, as the effects of the latter condition subside. At this time the effects of severe injury to the brain, such as clot pressure, softening, or abscess, with the symptoms consequent upon lesion of this particular part of the brain, such as paralysis and other motor disturbances, may appear, thus leading to the localization of the affection.

HÆMORRHAGE.

Hæmorrhage may be extradural or intradural, as the result of a blow upon the skull, with or without fracture, fissured or depressed. The existing frequency of hæmorrhage in intracranial injury, is a justifiable impression gained from experience collated in authoritative reports.

Phelps gives it as a fact that in 50 to 60 per cent. of cases this factor occurs in sufficient quantity, and in such relation as largely to influence the final result and become a determinate factor in the genesis of symptoms; he also states that in one-third of all cases it was the direct, if not the sole, cause of a fatal termination.

The fatal consequence of this complication will be more readily conceded in those instances where contusion or laceration of the brain are unassociated with an external wound. If the latter coexists, an opportunity is afforded for the hæmorrhage to escape without doing additional damage, from the pressure which would ensue, were it confined beneath the bony envelope (see Fig. 5).

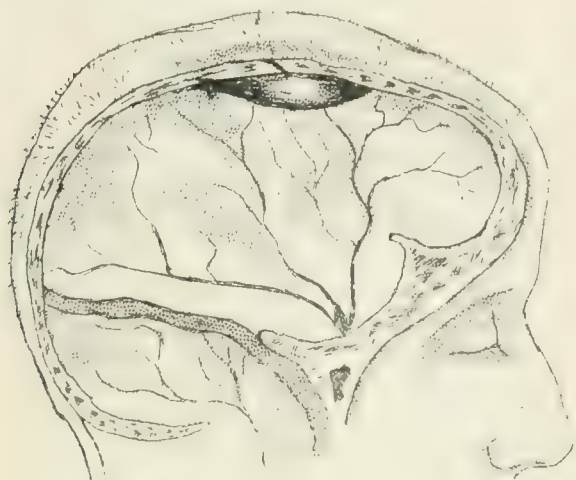


FIG. 5.—Hæmorrhage confined beneath the skull. This cut also shows fissured fracture of vertex.

We need not consider the hæmorrhage as so important a factor toward producing a fatal termination, if by means of an open wound we are enabled to use means for its arrest and exercise prevention against its doing such damage.

Blows upon the region of the middle meningeal artery or directly over the longitudinal or transverse sinuses, may, through a consequent rupture of the walls of these vessels, be the direct cause of a severe hæmorrhage, which continues until accumulation and pressure are followed by disastrous results and disable the functional activity of the brain.

The diagnosis of hæmorrhage when an external wound exists, and the hæmorrhage can be visually noted rising from the deeper and subosseous structures, presents no difficulty of proof. When the skull is uninjured, the existing hæmorrhages must confine themselves beneath this bony envelope. Certain symptoms will then soon be noted, and one of these is of more value than all the rest combined. It is that a period of consciousness ensues after the first shock of the injury, followed by paralysis or unconsciousness. In this case the person receiving a blow upon the head, falls to the ground, and remains for a time unconscious, owing to concussion of the brain. Recovering from this, several hours or may be days thereafter, symptoms of compression, principally manifested by an oncoming paralysis or a condition of stupor, super-

vene. The location and form of the paralysis will be a reminder of the locality in the brain which is subjected to pressure, and upon this delineation may the lines of relief be adopted.

Hæmorrhage within the substance of the brain is only produced through laceration of the texture, and becomes in this wise a part and parcel of this condition of laceration, its symptomatology and diagnosis resting, therefore, with that of laceration. In subdural hæmorrhages unaccompanied by a fracture or an external wound, the hæmorrhage finds its way into the potential interval between the dura and arachnoid. The blood so effused is liable to shift its position and suddenly to produce dangerous symptoms by gravitating to the pons, cerebellum, and medulla.

In any and all conditions of brain injury other than those which recover within a short period subsequent to the receipt of the injury, there are a certain train of symptoms which, when fully manifested, mark the case as one of severity and fatality. These may be summed up in the following: Persistence of stupor; increase in stertorous breathing, with the advent of the "Cheyne Stokes" type; and continuous unremitting rise in temperature to a high degree. The alleviation of any of these three symptoms or the continued state of any of the three, marks, to the exclusion of all other symptoms or signs, on the one hand return to a favorable state, on the other, to positive disaster.

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The Association of Assistant Physicians of the Ohio State Hospitals held its second annual meeting at Cleveland on October 9th. Dr. Isabel Bradley, of Columbus, read a paper on Chorea Insaniens, and Dr. Nelson Young, one on Thyroid Extract in Treating Insanity. An interesting case presented was that of a boy who has an insane habit of intoxicating himself on the fumes of gasoline.

The Speers Hospital Training School for Nurses, at Dayton, Ky., convened on the sixth instant under the direction of the superintendent, Miss Sophie Steinhauer, and will, next March, confer diplomas on the following seven young women: Blanche Watterman, of Newport; Catherine Schulte, of Pleasant Ridge; Anna Bessler, of Fort Thomas; Ada Sierman, of Price Hill; Nellie Lang, Nellie Altemeyer, and Margaret Macon, of Newport.

THE TREATMENT OF DISEASED FAUCIAL TONSILS IN THE ADULT.

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For years the faucial tonsil and how we shall deal with it has furnished a subject for much discussion, and a great amount of energy has been expended in investigation and experiment, with very little apparent progress.

One of the principal reasons for this slow progress I believe is due to the fact that we have neglected, or rather overlooked, some little things (so to speak) and have been dealing only with what we believed to be major factors.

It is not my purpose in this article to go into a history of what has been done, but I wish briefly to direct your attention to a certain form of tonsillar disease found only in the adult, which, by nearly all the general practitioners and by many specialists, has either been overlooked altogether, or passed by as being of little or no consequence. I refer to those small innocent-looking tonsils, or submerged tonsils, as some choose to call them.

In a majority of cases, when a throat is inspected, if the tonsils are not materially enlarged and protruding, they are looked upon as being in a normal condition, and other pathological changes are held responsible for existing troubles, very often a diagnosis will be made of chronic granular pharyngitis or chronic rhinopharyngeal catarrh. This error in diagnosis is easily explained, when we remember that these patients always complain of postnasal catarrh, and often give a history of repeated attacks of coryza.

In these same cases a more careful examination of the nose will not reveal a condition which would lead us to suspect these repeated attacks, for very likely we find the nose free from hypertrophied turbinates, septal deformities, or exostosis, some of which nearly always accompany postnasal catarrh.

If you pursue the examination further, you may learn that the appetite is impaired, more or less nausea is present, especially in the morning, which prevents a good relish for the morning meal. Along with these you are almost sure to find a coated tongue and constipation of the bowels.

When these patients with small harmless looking tonsils present themselves for examination, before making a hasty diagnosis, go a little more carefully into the history, and you will often be surprised to find there are other symptoms pres-

ent which indicate trouble with the tonsils. It is not uncommon for these patients to give a history of repeated attacks of amygdalitis or circumtonsillar abscesses. The throat is easily affected by climatic changes. Often the slightest exposure or indiscretion will cause them to suffer; in short, they have what is termed a very sensitive throat, a condition always accompanied with these harmless looking tonsils, very often they apply for treatment of the ear, as the hearing is less acute than formerly.

They have been treated with gargles, douches, and sprays, without any apparent relief. What then is the reason? Let us come back to these small tonsils and further examine them. And here it is important that we remember this fact, viz., that a tonsil does not have to be large and protruding, in order to be diseased and the cause of a vast amount of annoyance and even suffering to the patient.

On examination we find the appearance normal in color, surface comparatively smooth, with scattered here and there a few small nodules, but these may and do usually have a hard indurated base. Examine the crypts and again you will be surprised at the size, depth, and contents; the tonsil will be adherent to the pillars, one or both, more often the anterior; and in many cases the adhesions are so extensive that you find the pillars and tonsil forming one solid agglutinated mass. These adhesions alone are sufficient to give the patient a great amount of suffering, as anything like a free action of the muscles, either in swallowing, talking, or singing, is interfered with. Others complain of a pain, more or less constant, which extends up the side of the neck, and is often referred to the ear.

Those who have done abdominal surgery readily appreciate how much trouble and suffering may be caused simply by bands of adhesion. Now the same holds true when we find extensive adhesions between the tonsil and faucial pillars.

Some of the most frequent symptoms accompanying diseased tonsils of this variety are hawking, cough, pain in deglutition (at times), impaired hearing, change in voice, otitis, neuralgia, etc.

Is it any wonder that we may have so many and varied symptoms and sequelæ when we consider what an opportunity these deep open crypts afford for the retention of secretions, the lodgment of small particles of food, and the easy access afforded to the entrance of all sorts of germs, where they will find every condition favorable in which to multiply and flourish? Here we have the open crypts, diseased tissue, and a home for germs, as

well as the adhesions. The question, then, arises, How shall we deal with these diseased submerged tonsils?

In answer I would say, Meet them just as you would similar conditions when present in any other part of the body. You have your choice, either palliative or curative, treatment. You find here diseased tissue and adhesions to deal with. How long would it take a general surgeon to decide whether in a case of necrosed tibia he would apply washes and plasters, or whether he would at once remove the diseased tissue. The laryngologist should adopt the same measures. Never waste time with sprays and paints, but at once proceed to remove the diseased tissue, separate adhesions and endeavor to restore the parts to a normal healthy condition as speedily as possible.

The method you adopt for removing either a part or the whole of a diseased tonsil, is of little consequence; every surgeon must decide that for himself. There has been much discussion as to whether an amygdalotomy or an amygdalectomy is preferable in these cases. I believe the proper way to decide is in each case. You should remove all the diseased tissue, and until you do, you have only done your duty in part. Whether you remove a part or the whole of a tonsil, is simply a question of how much of it is diseased. The same rule applies here as in general surgery, not how deep to cut, but how deep must you go to accomplish the object, viz., to remove the diseased portion, and of that the surgeon himself must judge in each individual case. He will also choose the method he prefers, whether an electrocautery dissection, as recommended and practised so successfully by Dr. Edward Pyncheon, of Chicago, or the removal by the use of some one of the many good instruments at our disposal. Personally I prefer the Freeman tonsil punch, as designed by Dr. Walter Freeman, of Philadelphia. The advantages of this instrument are simplicity, easiness of operation, and with the application of a 10 per cent. solution of cocaine, a tonsil can be removed with very little, if any, pain to the patient, and no danger from hæmorrhage. With this instrument you can remove a small portion at each sitting or the entire tonsil at once. The important question, after all, is first, to be able to make a correct diagnosis; and then to treat with the intention of curing and not merely of palliating the trouble.

New Medical Journal for Colorado.—It is said that a new monthly medical journal, to be the official organ of the Colorado State Medical Society, is shortly to be established, with Dr. Edward Jackson as editor.

THE PRESENT STATUS OF SPINAL SUBARACHNOID COCAINIZATION.*

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In 1884, Dr. Leonard Corning, of New York, demonstrated the feasibility of producing analgesia by means of the injection of cocaine into the spinal subarachnoid space, suggesting at the same time the possibilities of direct medication to the cord through lumbar puncture. Fourteen years later, Bier, of Kiel, made desultory use of this method of producing analgesia for operations on the lower extremities, showing his faith in the method by having it used on himself. At this trial, unfortunately, so little being known of the technique, too much cerebrospinal fluid was withdrawn and Bier, as a result, suffered to the extreme the unpleasant symptoms which sometimes accompany the injection. Following on his own personal experience Bier condemned the method.

In the closing months of 1899, Professor Tuffier, of Paris, took up spinal analgesia in a purely experimental spirit, giving the first real impetus to its employment. Since that time much work has been done in this field with gratifying results. Especially prominent in this work in this country are Murphy, Morton, Matas, Marx, Sherrill, and Thomas. The results of these investigators are sufficient basis for the statement that this method of producing analgesia has a permanent and valuable place in the armamentarium of the surgeon.

No advance in science is without impediment, and it is a singular and deplorable fact that, in medicine at least, it would seem that the detractors are those whose objections are purely theoretical and who are absolutely devoid of practical experience. It is the purpose of this paper to answer some of these objections and to draw conclusions, favorable or otherwise, from the clinical evidence emanating from those whose work in this field gives them the right to speak with authority, and from my own very limited experience.

It is asserted that the method has an excessively high mortality rate as compared with other methods of producing analgesia. This I wish emphatically to deny, and an analysis of the reported cases will, I think, bear out this denial.

In the European record of over two thousand

* Read before the Missouri State Medical Association, April, 1903.

cases there appear six deaths—Tuffier, Gorlav, Jonnesco, Dumont, Juillard, and Heumberg each reporting a death. In the cases of Gorlav and Jonnesco the cause of death is by no means clear, and in studying the cases of both from a clinical and postmortem standpoint, I am inclined to the belief that the blame was attached to the cocaine by a process of negative reasoning. In Dumont's case, that of a tuberculous boy in a bad general condition, death occurred two days after cocaineization. While no evidence was adduced at the postmortem that the injection caused the death, still, no other positive reason could be found. Therefore, reasoning again by negation, the cocaine was responsible. In Tuffier's case death occurred twenty-four hours after the operation from acute œdema of the lungs and a mitral lesion. Of this case Murphy (*Journ. Amer. Med. Assn.*, February 9, 1901) says:

"A close analysis of the details shows there is ground for believing that the drug was in no way responsible for the fatality."

In Juillard's case death occurred on the second day succeeding operation, from rupture of an aneurysm of the sylvian artery. It is too much to ask us to record such a case in the mortality table of spinal cocaineization. It is, in fact, nothing short of ridiculous.

Heumberg's case, out of all reported, is the only one which incontrovertibly must be laid at the door of spinal cocaineization. In this case, autopsy disclosed a hæmorrhage into the cauda equina, due to puncture of the spinal veins.

In the European records I wish to place one more case as an instance of the eagerness of those opposed to spinal cocaineization to augment its mortality rate. This patient died in progressive collapse five days after attempted cocaineization. I say attempted, because, at the time, no analgesia was produced. Two days later, chloroform was administered and the patient operated on. Three days later, death ensued. To any fair-minded man, the placing of this death to the credit of subarachnoid analgesia must seem at least passing strange; and yet it has been done.

In this country there has been one death reported, that of Morton's. In a letter from Dr. Morton, he says:

"I have had only one death that could in any way be attributed to its use, and that was in a case of strangulated umbilical hernia, in an old woman weighing 318 pounds, with a very serious heart lesion. I do not think from the postmortem findings that the cocaine had anything to do with her death, and it was a case where I should not have dared to use ether or chloroform."

Going as far in a hysterical search for mortality statistics in the field of general anæsthesia as has been done in spinal analgesia, would it not be easy to pile up a death rate as great as, if not in excess of the above cited cases? In less than one week in the past few months in Kansas City there were three deaths on the operating table indubitably due to chloroform. I, myself, have seen three deaths on the operating table due to general anæsthesia, and there are few among us who have not seen several cases of postoperative deaths where it was hard to know upon what to place the blame. If cases equally indeterminate are to be laid at the door of spinal cocaineization, let us be fair and place cases of like character to the credit of general anæsthesia. Then we can more rationally compare our mortality tables.

Again, it has been urged that the toxicity of cocaine varies with the individual. It cannot be denied that there is a certain percentage of individuals with a peculiar idiosyncrasy against cocaine. I have got alarming symptoms from the injection of a four per cent. solution in the urethra. The smallest amount of cocaine causing death, so far as reported, is twelve minims of a four per cent. solution, injected hypodermically in a girl eleven years old (case reported by Dr. Knabe). We may, then, assume $\frac{48}{100}$ of a grain to be the minimum fatal dose regardless of idiosyncrasy. If, then, we use less than $\frac{48}{100}$ of a grain for producing analgesia we may consider that we eliminate the chance of fatality.

In the experiments of Tait and Cagliari it has been shown that medicines in the general circulation do not reach the subarachnoid space. It is possible that they pass each way by osmosis, but chemical analysis does not show such to be the case. This would tend to limit greatly the toxic effect on the heart through the general circulation.

The objection which I have found to be the most common one put forth against cocaineization of the subarachnoid space is that this region is practically an unexplored field surgically. Up to the time that McDowell did the first laparotomy, the peritoneal cavity was considered sacred ground. Yet now the objections of his detractors must seem, in the light of our present knowledge of the technique of abdominal surgery, to be merely the echo of mediæval fogeyism. This objection, then, must be set aside as groundless.

Paying full attention to all possible objections brings me to the consideration of the relation of shock to the puncture of the space, the withdrawal of the cerebrospinal fluid, and the injection of the cocaine solution. Gumprecht has collected seventeen cases of immediate death following lumbar

puncture for diagnostic purposes from the clinics of Quinke, Fürbringer, Lenhartz, Lichtheisen, Kronig, Bull, and himself, in which no other cause could be found. But these were cases of disease of either the brain or cord, some being cases of brain tumor. Further, the amount of fluid withdrawn unquestionably played an important part. In speaking of this shock, Morton (*Amer. Medicine*, August 3, 1901) says:

"There is sometimes a class of symptoms, viz., rapidity of pulse, nausea, cramps in the extremities, headache, chills, subnormal temperature and a condition of general depression, which have been attributed to the toxic properties of the cocaine, but I am satisfied that they are a form of spinal shock which is caused by disturbing the vital centres which are situated at the upper part of the cerebrospinal axis. They may have been caused by injecting a fluid which is foreign to the canal, especially if it be at a different temperature from the cerebrospinal fluid, or by disturbing the tension of the cerebrospinal canal by permitting the escape of the fluid.

"To prove that the symptoms are not due to cocaine poisoning, I have already reported cases in which I had injected normal salt solution, and in one case had the symptoms above mentioned. This would indicate that the symptoms are not cocaine poisoning, but shock; they are only transitory, and will seldom occur and are never severe if you are careful and do not waste the cerebrospinal fluid."

Writing later, Morton says that these symptoms have practically been done away with by his method, which I shall explain later. That this element of shock may be almost, if not entirely, obviated by proper precautions, I am certain.

The ultimate danger to the cord and the centres of the medulla has been urged as a possible and a purely theoretical objection. Nicoletti, after extensive experimental research, says that the injection causes no anatomical changes in the nervous elements. I think, then, that we may dismiss this objection as being without foundation.

The danger of infection must be very slight, as no cases are reported, either from lumbar puncture for diagnostic purposes, or for the purpose of cocaine analgesia. It may be considered practically nil.

There is, however, an objection which must demand consideration. This objection lies in the fact that in some cases the analgesia is of too short duration for prolonged operative procedures, sometimes lasting less than thirty minutes. This is a valid objection, despite the fact

that a second puncture and injection may be made.

Some time ago, having employed the method with good results, and being met on every side with the statement that it was exceedingly dangerous and that those who had used the method had abandoned it, I addressed a letter to those in America who had been its most extensive users. In this letter I put the following questions:

(1) Have you abandoned the method? If so, why?

(2) Have you had any mortality attributable to this method?

(3) What is your opinion as to its limitations?

(4) What has been the average amount of what per cent. solution required for analgesia and the average time of analgesia?

(5) Do you consider it to be attended with more danger than general anæsthesia?

To the first question the answers were a decided negative, with the exception of that of Dr. Murphy, who reports that he has abandoned the method "because of the difficulty in getting uniform sterile solutions of strength."

In Morton's letter he says.

"I have not abandoned the method; in fact, I use it in preference to ether or chloroform, in all cases, and for all operations, and on any part of the body."

To the second question, the death of Morton's, already alluded to above, was the only one reported.

The answers to the third question varied from Morton's (as included in the answer to the first question), to that of Marx, who limits it to those cases where general anæsthesia is contraindicated.

The amount of cocaine used varied from ten minims of a two per cent. solution (Marx) to $\frac{1}{2}$ grain of cocaine, used by Morton for producing analgesia above the diaphragm. The length of analgesia varied from one-half hour to four hours.

In answering the last question, as to the relative safety of subarachnoid analgesia and general anæsthesia all were agreed in considering the former as safe as, if not safer than, chloroform or ether. In fact, the consensus of opinion was that it was safer.

Before entering into detail as to the technique, I wish to make mention of some of the substitutes which have been used in the place of cocaine. Dr. Karl Schwartz, of Agram; Dr. Willy Meyer, of New York, and Dr. Marx, of New York, are advocates of tropacocaine. The arguments put forth in its favor are:

1. The toxicity of tropacocaine is less than half that of cocaine.

2. The depressing action of tropacocaine on the cardiac motor ganglia and muscle is much less than that of cocaine.

3. Recovery from the effects of tropacocaine is much more rapid.

4. The stability of the solution is greater than that of cocaine.

Dr. Marx, in his letter to me, says that he has had excellent results with a four per cent. solution, twenty-five minims. This seems to be the least amount practicable for analgesia, and, admitting the claims of its champions, that it is less than half as toxic as cocaine, still the toxicity of the required amount of tropacocaine is about twice that of the required amount of cocaine. Again, the quantity of the solution argues against its use. This argument, then, it seems to me, must be thrown out as fallacious.

The fact that recovery from analgesia is more rapid, I consider a decided argument against tropacocaine. While the stability of the solution is a point worthy of consideration, still it is by no means a potent argument against the use of cocaine.

Referring to the depressing effect on the heart, I should say that in no case have symptoms of this acknowledged action of cocaine been demonstrated in spinal cocainization.

Eucaïne has been used and found wanting. Fritz Engleman saying that he has had the unpleasant effects without the analgesia of cocaine.

TECHNIQUE.

The technique of the operation is comparatively simple, and can be applied by any one of even ordinary surgical ability. It may, perhaps, be *à propos* briefly to review the steps in the procedure here.

The needle advised by Tuffier is of platinum with a short bevel. The one which I have employed is an ordinary steel aspirating needle, ground to a short bevel. It must be sufficiently long to penetrate easily the space between the skin and subarachnoid space.

I have used a two per cent. solution, which seems to be the universal one. Part of this solution was prepared for me by Dr. Frank Hall, the cocaine being first sterilized by the dry method in small tubes, the solution being made by the addition of sterile, freshly distilled water, the tubes then being sealed by heating and drawing out the glass. Such sterile glass tubes contain thirty minims each. Put up in this form, it seems to keep indefinitely. The syringe is an ordinary solid-piston metal one, which can be boiled.

The patient is prepared as for general anæsthesia and the skin over the area of puncture is

well scrubbed, and an antiseptic poultice placed over it the night before operation, to assure an aseptic field.

The tube of cocaine is placed in a formalin solution of sufficient temperature to bring the inclosed cocaine solution to about body heat. The hands of the operator are sterilized thoroughly and the field of puncture is again scrubbed. The tube of solution is broken and fifteen minims are drawn up into the syringe, which has been boiled.

The patient is seated on a stool and told to bow the back strongly. The needle is taken in the right hand, while the fingers of the left locate the fourth lumbar spine, which lies on a level with the iliac crests. The injection is made either above or below this landmark, i. e., in the space between the third and fourth or fourth and fifth lumbar vertebræ. The needle, grasped in the right hand, punctures the skin a little below and a little to the right of the spine selected, and is made to take a direction slightly upward and inward. It is pushed in slowly, and if a bone is impinged upon it is withdrawn slightly and the direction modified. The intervertebral ligaments offer a slight obstruction to the needle, so that when the canal is entered there is a sense of diminished resistance, by no means always followed by a flow of cephalorhachidian fluid, and the operator must not be misled into injecting the solution on this evidence alone. The only positive proof that the arachnoid space has been entered, is the issuance of the cerebrospinal fluid, drop by drop, from the needle; and then, and not till then, should the injection be made.

The amount of fluid allowed to escape through the needle should equal the amount of cocaine solution we intend to inject. The syringe is then attached and the injection made. Morton modifies this method by drawing the fluid direct from the canal into the syringe, in which are placed the requisite quantity of sterile cocaine crystals. Whether the injection is made slowly or rapidly has seemed to make no difference, operators differing as to this point. For securing analgesia above the diaphragm, Morton makes the injection rapidly.

The needle is now withdrawn and a piece of sterile gauze fastened over the point of puncture by adhesive straps. The patient is now allowed to sit up straight, and so remain for a few minutes. If analgesia above the diaphragm¹ is required, it is best that the patient assume a reclining position immediately following the injection, to favor a diffusion of the cocaine solution, as the specific gravity of the cocaine solution is greater than that

¹ The writer recently had a case in which there was perfect analgesia above the diaphragm but absolutely none below.

of the rhachidian fluid. In cases where the recumbent position is enforced, the patient can be placed on his side and the back bowed, the injection being made in this position.

Analgesia is complete in about eight minutes, usually about the time required to get the patient ready for operation, and the surgeon can proceed in perfect assurance that pain perception has been destroyed. Contact sense is not destroyed and, in one case of my series, the patient retained the perception of heat and cold.

The report of cases follows:

CASE I.—J. C. M., aged fifty years; complete retention from stricture. The urethra was a corduroy road and was permeable with difficulty to a filiform. I did both external and internal urethrotomy, practically splitting the urethra from the meatus to the posterior reflection of the triangular ligament. The patient had absolutely no pain under the injection of twelve minims of a two per cent. solution of cocaine. The pulse was seventy-two throughout the operation. At the close of the operation he complained of being slightly nauseated, but this nausea passed off before he left the table. He was taken to his room and ate his dinner. That night his temperature rose to 102° F., and he complained of a slight headache. The next morning his temperature was normal, but the headache continued until about three o'clock in the afternoon. The injection was made about half-past ten in the morning and the analgesia persisted up to about six o'clock in the evening, a very unusual length of time. He made an uninterrupted recovery, leaving the hospital in about three weeks.

CASE II.—J. G. B., aged seventy-seven; retired farmer. This patient gave the usual history of the prostatic, culminating in complete retention, in which condition I saw him. The retention was relieved, and after the usual preparatory treatment, a cystoscopic examination was made and a Bottini advised. While it was by no means a case to be selected for a Bottini, a prostatectomy was out of the question, on account of the patient's bad general condition. The former procedure was, therefore, advised in the belief that it offered him the best hope of future comfort.

The question of anæsthetic then arose. His vessels were markedly sclerotic, and he had had a pneumonia the preceding winter which had left marked effects. At a consultation between Dr. Chambliss and myself, spinal cocaine was decided upon. The operation was done under the injection of twelve minims of a two per cent. solution. The analgesia was perfect, and there were no untoward symptoms. The cautery was introduced and three cuts were made, two lateral and one median. The incisor was withdrawn and a permanent catheter was retained. There was no pain and no shock; no nausea, headache, or untoward symptoms. He was removed to his room and ate his dinner. The subsequent course of this case was devoid of any complications, the patient making an uninterrupted recovery with results from the Bottini which exceeded my expectations.

CASE III.—G. A. L., aged thirty years; farmer; operation, orchidectomy. This patient had taken chloroform on a previous occasion for the extraction of a tooth and had a horror of an anæsthetic. He was profoundly neurasthenic and had tachycardia, his pulse being one hundred and thirty-two. He was of such a hysterical temperament that I hesitated to employ subarachnoid injection, but finally decided to do so. Under the injection of fifteen minims of a two per cent. solution, he underwent the operation without the slightest evidence of pain or annoyance. As in the preceding case, there were absolutely no untoward symptoms, the patient eating his dinner on getting to his room. In this case we made an attempt to learn how the analgesia extended. With a needle we found analgesia as high as the face where it was only partial. He made an uneventful recovery, leaving for his home eight days after the operation.

CASE IV.—N. A. B., aged twenty-two years; student; operation, circumcision. Under ten minims of a two per cent. solution there was complete analgesia, lasting about thirty minutes. There was transient nausea while on the table, but no other untoward effects either at the time of operation or following it.

CASE V.—W. K., aged twenty-five years; farmer; tuberculous bladder and urethra with perineal and penile fistulous tracts. The patient was hyperæsthetic and complained of a great deal of pain while the puncture was being made. The analgesia apparently lasted but twenty minutes and the operation had to be completed under chloroform. I think there is no doubt but that the psychical element of pain contributed a great deal to the unsatisfactory results in this case. There were no untoward effects.

CASE VI.—C. C., aged thirty-nine years; complete retention due to stricture; operation, internal and external urethrotomy under fourteen minims of a two per cent. solution. The analgesia was complete. Following the operation the patient insisted upon sitting up to put on his gown and was attacked by nausea and vomiting, which passed off completely by the time he reached his room, where he ate his dinner. The subsequent course of the case was an uneventful one toward recovery.

CASE VII.—W. E., aged thirty years; membranous stricture, with extravasation of urine. The patient was hyperæsthetic and complained of pain from the puncture. There was psychical pain in this case, proved to be of this character by the fact that when the patient's attention was attracted away from the operative field no pain was felt. There were no untoward symptoms, the patient making an uneventful recovery.

CASE VIII.—M. B., aged twenty-two years; clerk; pyelitis; operation, ureteral catheterization for diagnosis and treatment. Under ten minims of a two per cent. solution perfect analgesia was obtained. I catheterized the ureters and irrigated out the kidney pelves. Just before leaving the table, he complained of nausea and vomited, these unpleasant symptoms passing away in a very few minutes. There were no untoward after effects.

The points that have particularly struck me

in the cases mentioned have been the almost complete absence of shock, an element invariably present in general anæsthesia, and the lack of unpleasant symptoms following the injection. Imagine any of the foregoing patients returning from the operating room laughing and chatting with the attendants and partaking of a meal immediately following general anæsthesia. The contrast in general appearance between the patient who has taken a general anæsthetic and the patient who has been operated on under the subarachnoid injection of cocaine, is the most striking thing I have seen in surgery.

In old prostatics where a question of operative relief has arisen the bugbear of the surgeon has been the effect of anæsthesia and shock. Almost always sclerotic to a high degree, very often the subjects of complicating kidney lesions, and with powers of resistance to shock greatly reduced, they have proved most unpromising subjects for operative interference. In such cases as these the subarachnoid use of cocaine promises much. In kidney surgery the moments of greatest anxiety are spent in the hours of retching and vomiting following the exhibition of the anæsthetic. The nausea and vomiting of spinal cocaineization, if they are present, are slight and transient and can give rise to no concern. Such advantages are of more than imagined importance in prostatic and renal surgery.

Reasoning from the evidence adduced for and against the method, I believe that the following conclusions are justified:

First: That the method is as safe as, if not safer than, general anæsthesia.

Second: That we may safely employ up to $\frac{48}{100}$ of a grain of cocaine without fear of toxic effects.

Third: That shock, when present, is decidedly less than that of general anæsthesia.

Fourth: That it is attended with less danger of annoying sequelæ and symptoms.

Fifth: That on account of the variability in the length of its analgetic action, it is contraindicated in prolonged operative procedures.

1208 WYANDOTTE STREET.

The Tennessee Valley Medical Society held its regular triennial meeting at Huntsville, Ala., on the 14th instant, and elected the following officers: President, Dr. E. O. Williamson, of Gurley; first vice-president, Dr. T. H. Henry, of Tuscumbia; second vice-president, Dr. Thomas J. Burke, of Courtland; secretary and treasurer, Dr. T. E. Dryer, of Huntsville; chairman of the judicial council, Dr. O. R. Palmer, of Tuscumbia.

A CONSIDERATION OF THE PATHOLOGY AND TREATMENT OF CANCER.*

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At a meeting in April, 1902, of the Medical Association of the Greater City of New York, a discussion took place on this subject which induced me to look up the history of most of my own cases, and to inquire at the same time into the views held by some of the best authorities of the present day in regard to the nature of cancer.

The supposition of a parasitic origin of cancer has been agitating the medical and lay minds considerably of late, but no specific cancer parasite has yet been found. No doubt, it is the analogy of the invasion of the system from a primary focus in cancer with that of the tumors formerly known as infectious tumors, particularly of tuberculosis, by which the belief in the parasitic theory has been brought about. However, as F. Marchand (*Deutsche med. Woch.*, No. 40, 1902, p. 722) says: "Though there is a similarity with the course of an infectious process in many cases of rapid eruption of cancer and its metastases in innumerable foci, yet it has been often enough demonstrated that the metastases of all genuine infections are caused by the isolated parasites, which excite the tissues of any suitable locality to identical changes by their specific actions, and all infectious processes belong essentially to the department of inflammatory and, consequently, reactive conditions. In malignant growths, on the contrary, it can be demonstrated with absolute certainty that the metastases originate solely through the progressive multiplication of transplanted tumor cells, which have no infectious action upon the tissue elements and do not cause a transformation of normal epithelia into cancer cells. This can be very clearly seen in the lymph glands, the brain, etc., where the tissue elements are sharply separated from the tumor cells, and we observe that the characteristic point for infection by germs, that is, that the specific infectious germs will produce a specific and always the same morbid process where-soever they get to and find suitable soil, is utterly wanting in the formation of the metastatic tumors of cancer. The tumor cell itself is a living and reproductive organism, living upon and increasing in the substance of the body. It may be compared in its action and progress to a parasite, but is not identical with it."

* Read by title at the meeting of the Medical Society of the State of New York, at Albany, January, 1903.

There are also certain pathological facts which speak against the parasitic nature of cancer and other malignant growths, particularly the numerous cases of carcinoma growing out of congenital inclusions or aberrant groups of cells; it would be unreasonable to presume that these epithelia contained parasites already, when segregated. Marchand, Hansemann, Ribbert, Orth, and other well-known pathologists make the positive statement that the great majority of cancer parasites which are believed to have been seen of late, are nothing but well known products of degeneration of protoplasm, or vacuoles and impurities within the cell body, and are not deserving any further consideration. A sole exception, perhaps, would be certain corpuscles which have lately been seen and demonstrated by a number of careful observers, such as Plimmer, Borrel, and Leyden, in a series of cancers, particularly of the mamma, and pronounced parasitic by some and not parasitic by others. Some of these specimens did not look like parasites, but careful tests and examinations made in the pathological institute in Leipzig, by Marchand and Noesske, appear to have yielded the results that such corpuscles were not organisms, but inclusions of a different kind within the cells, so-called vacuoles, produced by cellular secretion and containing a varying amount of coagulable substance. These investigators believe that the growth of malignant tumors out of proliferating elements of the grown organism, point to a particular disposition, inclination, and that external causes in the way of acute trauma or chronic irritation by ulceration, etc., serve as inciting cause only in so far as they excite cellular productiveness, and this we see particularly in advanced life.

Heredity plays a great rôle here, understood as hereditary or acquired morbid disposition of certain tissues. There are many things which, Marchand believes, are apt to show that the reappearance of epithelial proliferation in advancing age is closely connected with a state of degeneration—not of a return to the embryonal state, but a change from the normal condition. In the course of such degeneration or change with age, the cells are apt to escape from the regulating influence of the nervous system and acquire a greater amount of independence of their own. Ribbert thinks that the cells have got to be separated first from their normal surroundings before they can be stimulated to abnormal proliferation, but this is not absolutely essential, because we can demonstrate the overgrowth, degeneration, and productiveness of cells within such glandular acini as are still perfectly well preserved, and such has been done in the mamma, the pancreas, and prostatic gland.

To be sure, it is difficult to answer the question

what cause may excite again the cells in later life to renewed and increased proliferation, and every attempt at an answer is mere speculation. Hansemann believes that the cause of the malignity lies in the return of the cell to a less differentiated state—*anaplasie*, as he calls it—histologically perceptible by the appearance of abnormal asymmetrical division of its nucleus, the descendants of these unequally divided cells departing further and further from their normally differentiated ancestors. That such pathological anaplastic differentiations of the normal tissue cells are seen in malignant growth, there is no doubt, and we see often enough a complete transformation of the cells of a part when a carcinoma envelops it. But this is by no means always so, and quite often the tumor cells come pretty near the original epidermal cells in form and arrangement, nor is the degree of malignity dependent upon the more or less pronounced anaplasie of the cells. Very small cancerous tumors of the stomach and intestines, presenting an exquisite picture of glandular construction, may nevertheless produce large metastatic tumors of the same kind. Ribbert's observation of the segregation of groups of epidermal cells from surrounding normal tissue by inflammatory processes, is also of importance in considering the cause of malignant proliferation. There are many cases of tumor formations which can be traced back to segregated parts of organs, and in some of them the separation has been brought about by inflammatory proliferation of connective tissue, as, for instance, in cutaneous cicatrices. But the process of such separations can only be proved in very few cases of new growth, while in many cases of development of cancer, of the skin, for instance, a progressive proliferation of the cells of the epidermis and the glands and the hair follicles can with certainty be observed to take place at various points at one and the same time.

If external causes, then, can do no more than excite proliferation of cells, there must necessarily occur abnormal changes in the substance of the cell by which its physiological structure is changed, and such products of cellular action must have, not only a stimulating, but also a toxic effect. Without a supposition of such toxic effect, it would be difficult to understand the peculiar destructiveness, and even inflammatory properties, of the cancer cells in their invasion of the tissues; we need only think here of pleuritis and peritonitis carcinomatosa. It is believed by Marchand and others that the cells acquire such virulence only after being deprived of certain influences, probably by the nervous system, which are the regulators of the normal cellular functions. These physiological influences may be lost

by hereditary or acquired weakness or disturbance of the finest nervous adjustments. It must not be forgotten, however, that many cells functionate very well without such regulations.

Dr. L. Loeb, in a long and exhausting series of experiments with transplantation of tumors, made during the last three years in the laboratories of Chicago, Buffalo, and the McGill University, of Montreal, and published in the *Journal of Medical Research*, Vols. I and III; and again recently in *Virchow's Archives*, Vol. 172, part III, has had positive results in a large number of transplantations in rats, chiefly with both solid and crushed pieces of sarcoma and sarcomatoma. He agrees with the pathologists before-mentioned in stating that no one has yet demonstrated a cancer—or sarcoma—parasite. He thinks it probable that the transplantation of a single tumor-cell would be adequate in forming a tumor in previously normal tissue. He also had a number of positive results by injecting the juice of *cystosarcoma subcutaneously*, which is of considerable practical interest; some surgeons have already called attention to the possibility of contact infection when operating for malignant tumors. In the course of his article in *Virchow's Archives*, L. Loeb concludes as follows: (1) No microorganism has been seen within a sarcoma cell as excitor of tumor formation. (2) It is not at all probable that any microbe living outside the tumor cells is the cause of sarcoma. (3) It is also quite improbable, that a microorganism looking like bacillus tuberculosis or belonging to the class of blastomyces and living outside the tumor cells can excite sarcoma.

We see, then, that all these well known investigators are opposed to the parasitic origin of malignant tumors. With the acceptance of Marchand's theory of the toxic properties of the cancer cell, the diminished resistance of the tissues against the luxuriant growth of cancer elements would assume a less mechanical aspect, while, on the other hand, the effective resistance of the normal organism would consist to a large part in the fact that the toxic properties of the proliferating cells can be and are neutralized through antitoxines produced by the healthy tissue changes in a sound body.

Now, it is certainly very remarkable that many of the best pathologists of the present day neither believe nor take any further interest in the bacteriological investigations of cancer, yet this sort of investigation is a characteristic of the present times, and many experienced clinicians believe in the parasitic nature of the malignant tumors. There is, however, no way of getting round the inherited or acquired disposition of the individual,

no matter whether the malignant productiveness of the cells is excited by invading parasites or by a pathological chemistry of the cells alone. Be the one or the other true, it does not signify to the surgeon for the present and the immediate, or even for the probably remote future, for it will always be his business to extirpate the tumor as soon and as radically as possible. With the proof, however, of the parasitic nature of the disease, the physician would be justified in hoping for the early discovery of a reliable healing serum of antitoxine by which the parasite or its toxines could be destroyed.

It goes without saying that, even with early diagnosis and early and radical operation, the prognosis as to recurrence sooner or later, is still bad and quite uncertain. We have nothing definite by which we can be guided in giving a prognosis, *bona* or *infausta*, in the average case, and I have found it a good rule in practice to be exceedingly cautious in making a definite statement with regard to it to the patient or his friends. There is not time enough to prove this by detailed histories of the many cases which have come under my care in a long practice. Suffice it to say that, in the cases of carcinoma mammæ, of which I have had very many under my care, many a hopeful early case was seen to relapse early and end fatally, in spite of the best surgical procedures; while others, again, presenting rather bad local and general features, did well and remained well.

With epithelioma of the lip or face or nose, the best results were invariably obtained by early and liberal excisions, much less so by escharotics, such as arsenic and chloride of zinc, the use of which I have given up of late and advised against in consultation with professional associates.

I have seen comparatively good results in about 6 cases of malignant tumor of the transverse and descending colon, which were cut out as soon as the consent of the patient could be obtained. The worst results were noted by me in about 18 cases of cancer of the stomach, in which none of the patients lived longer than eighteen months, counting from the time that the diagnosis could be made, with or without operation.

Though I have not observed a cure of local relapse by the x ray treatment, in the few cases of mammary carcinoma where I advised the application of the same, I am ready to state that pain and distress have been relieved by the actinic rays, some of the smaller tumors around the cicatrices on the field of operation have been diminished in size, and have even disappeared, and the patient's general condition has improved.

There is no doubt in my mind that your

thoughts did, or will, correspond to mine when I say in conclusion, that all operable carcinomata ought to be removed by the knife as early and radically as possible. By pretty rapid and dexterous operating and the avoidance of all unnecessary bruising of and pressing into the affected parts, by which cancer cells may be driven and dispersed into neighboring tissues, the prospects of smooth healing and non-occurrence of relapses are greatly improved, according to my experience. So soon as the surgeon can discharge the patient the latter ought to return to the care of his physician for such constitutional and other local—particularly x ray—after treatment as may be indicated by the nature of the case, in order to prevent or postpone relapses as much as may be. In many cases much can be done, I believe, by diet, hydrotherapeutics, frequent exposure of the body to sun or electric light, the tonics of arsenic, iron and quinine, towards increasing the constitutional resistance against the carcinomatous toxins and the making of a soil unsuited to the proliferation of degenerated cells, or, if you please, to the growth of cancer parasites.

25 WEST FORTY-SIXTH STREET.

Correspondence.

LETTER FROM PARIS.

The "Dechlorization" Treatment as Practised in Paris.

PARIS, October 6, 1903.

The osmotic power of common salt is well known, but until recently its influence on the circulation and on the production of œdema in various diseases has not been fully realized. The investigations which have been carried on in Paris for the past year, and especially during the last few months, are extremely interesting and of the highest clinical importance as having a distinct bearing on the too prevalent use of saline injections, and also in determining the rôle which salt in the food plays in the genesis of certain diseases. We see how it may become at times a deadly poison as well as at others a strong vital stimulant. The question was first studied by Dr. Achard, whose theory of the œdema of Bright's disease is as follows: "The salts which are not eliminated accumulate in the tissues and attract the water necessary for their solution; for it is well known that salts, especially the chlorides, cannot exist in the organism unless under a certain dilution." This statement led to numerous communications, the most important of which was that of Dr. Widal, in June, 1903 (Soc. med. des hôpitaux, June 12). He studied the rôle of chloride of sodium in connection with nephritis and

read reports of two cases of acute nephritis of an epithelial type resulting from infectious diseases. He placed the two patients on a fixed diet and succeeded in causing the appearance of subcutaneous, pulmonary, and even cerebral œdema by the simple addition of ordinary salt to the daily diet—in one case 10 grammes a day for six days and in another for nine days. Suppression of the salt and a milk diet caused the œdema to disappear immediately. This œdema only appears when the tissues are in a state of "chloride retention," and there is a marked absence of chloride elimination in the urine. If some cases of interstitial nephritis, when put on the "chlorization" test, did not show any œdema, it was due to the fact that the tissues are poor in chlorides, as proved by the analysis of the urine, which showed that the chlorides were being rapidly eliminated.

Dr. Widal's communication was followed at the next meeting of the society, on June 19th, by an interesting report by Dr. Merklen, who had studied cardiac dropsies in the same manner. In cases of retroceding dropsy, with marked diuresis, Dr. Merklen had noticed that the excretion of chlorides was always parallel with the quantity of urine excreted. In similar cases Dr. Achard has seen 10 grammes of salt produce a marked aggravation in the disease, and he has also seen pleuritic effusion increase because too much salt was taken.

These clinical investigations were the starting point of a series of experimental laboratory researches which are of the highest interest and throw a strong light on the peculiar "osmotico-vital" properties of sodium chloride.

Dr. Castaigne and Dr. Rathery (*Semaine médicale*, September 23, 1903) have studied the action of sodium chloride on the renal epithelium. To determine the reason why salt causes the appearance of œdema in certain diseases, they plunged the fresh renal pulp of an animal into salt solutions of different cryoscopic densities. They then discovered that, while certain solutions were "renoconservative," others were "renolytic." That is, that, while certain solutions were admirable *preservatives* of the renal epithelium, others were *destructive*. The salt solution which preserved the elements was the one whose congealing point was — 0.78° C. The other solutions produced either swelling or shrinking of the epithelial lining of the tubuli contorti. This action is more truly *osmotic* than *toxic*, because weak solutions act quite as powerfully as strong ones.

These same authors have carried out a series of experiments on rabbits which are of the highest interest. On exposing healthy rabbits to the "dechlorization" test, that is, by depriving them of salt for a number of days, albumin appeared in

the urine. The animals were then killed and the same lesions of the tubuli contorti were found as existed in vitro with weak solutions of salt. The test was applied to a medical student offering no trace of albumin in the urine. After four days of feeding on foods containing no salt, albumin began to appear in the urine, and after eight days he was passing 0.50 centigrammes per litre of albumin. This disappeared as soon as he returned to normal diet.

These results in a healthy individual are apparently quite opposed to those obtained in nephritic disease, for the authors rapidly obtained the disappearance of œdema in several cases of parenchymatous nephritis.

In the same manner the influence of "hyperchlorization" was ascertained. On small animals, injections of artificial salt solutions were given, at a dose of 7 c. c. per kilogramme of animal, and no albuminuria ever appeared. But a dose of 30 c. c. per kilogramme always caused the appearance of albuminuria, and the microscopical examination revealed well marked lesions of the epithelium of the tubuli contorti. When the animals experimented upon already presented diseased kidneys, even 7 c. c. per kilogramme and per day provoked albuminuria. This same experiment, tried with a patient affected with nephritis without albuminuria, provoked the appearance of albumin after a few days, lasting eight days and more. Thinking that this might prove a test whereby latent albuminuria could be detected, Castaigne and Rothery studied the effect of "hyperchlorization" on forty-eight subjects presenting no apparent renal lesions, and in four of this number albumin appeared. No conclusion could be arrived at, but it is suggested that in certain cases this test may reveal latent Bright's disease.

This whole subject is in its infancy and calls for careful study. We have seen enough, however, to prove to us that the salt injections are far from harmless and should be used with discernment, for there is no doubt that many a uræmic accident has been directly provoked by an inopportune salt injection given at a time when the chlorides were being retained in the tissues. The elimination of chlorides should be carefully determined by uranalysis, as by this means alone can we determine the renal permeability. In cases of anarsarca the suppression of all salt in the food will often give unexpected results when other means have failed.

Dr. Williams maintains that the œdema of "phlegmasia alba dolens" of typhoid fever can be made to rapidly disappear by feeding patients

on food deprived of chlorides. He has found that the small elimination of sodium chloride in this disease does not depend on the retention of this salt in the blood, but in the tissues themselves. Hence he makes the following statement: "The 'phlegmasia alba dolens' is the result of an intoxication of a limb by sodium chlorides. The obliteration of a vein plays the rôle of a predisposing cause in the appearance of the œdema." Hence the treatment. The extreme usefulness of milk in many diseases is no doubt to a great extent due to its deficiency in chloride of sodium.

Therapeutical Notes.

Antiparasitic Lotion.—*Tribune médicale* for June 20th, advises the following for the removal of any of the pediculi:

- R Oil of almonds.....100 grammes (3½ ounces);
Naphthol B.....25 centigrammes (3¾ grains);
Camphor2 grammes (30 grains).
M. For a lotion.

A Purgative Powder.—*Tribune médicale* for June 20th, advises the following powder as useful in constipation:

- R Powdered senna.....18 grammes (4½ drachms);
Powdered fennel } of each.....24 grammes
Powdered licorice } (6 drachms);
Sugar60 grammes (2 ounces).
M. A heaping teaspoonful in jelly at night.

An Ointment for Uræmic Dyspnœa.—*Journal des praticiens* for September 19th, recommends the following:

- R Pilocarpine nitrate.....5 centigrammes (¾ grain);
Vaseline50 grammes (1½ ounces).
M. Rub into chest, and bandage firmly till there is profuse perspiration.

For Constipation.—*Revue française de médecine et de chirurgie* for October 5th, recommends either of the following formulæ:

- R Tincture of gentian } of each.....10 grammes
Tincture of calumba } (150 minims);
Tincture of nux vomica...5 grammes (75 minims);
M. Fifteen drops in water before each meal.
R Powdered nux vomica...5 centigrammes (¾ grain);
Extract of gentian....10 centigrammes (1½ grains);
Powdered gentian.....enough for one pill.
M. Make ten such; one or two daily.

For Influenza.—E. Graetzer, says *Nord médical*, for July 15, 1903, likes a mixture of acetanilid and Dover's powder:

- R Acetanilid25 centigrammes (3¾ grains);
Dover's powder.....15 centigrammes (2¼ grains).
M. Three such powders daily.

For Burns.—Freyssinge, according to *Nord médical*, for July 15, 1903, likes the following:

- R Laudanum3 grammes (45 minims);
Cherry laurel water.....20 grammes (5 drachms);
Glycerin40 grammes (10 drachms).
M. Keep compresses saturated with this mixture on the burned area.

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NEW YORK, SATURDAY, OCTOBER 31, 1903.

A NOTABLE AGENCY IN THE CAMPAIGN
AGAINST CONSUMPTION.

An address delivered in Philadelphia last Saturday evening by Dr. E. L. Trudeau, of Saranac Lake, N. Y., was not only of exceeding interest in itself, but also notable as the first of a series to be given, by men qualified in the highest degree to speak authoritatively on subjects connected with the campaign against tuberculous disease, under the auspices of the new Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis. Though the audience was not a large one, it was highly appreciative. For the most part it was made up of medical men, but there was a fair proportion of men and women not connected with the medical profession, enough to show that very great interest is felt by the community in the institute's objects. Of the physicians present, several had come from more or less distant cities, and among them were some men of distinction in connection with the study of tuberculous disease.

Dr. Lawrence F. Flick, of Philadelphia, a member of the managing board of the institute, told briefly of the considerations that had induced Mr. Phipps to direct his philanthropy into the antituberculosis channel, prominent among which had been the picture painted by the public charity officials of the State of Pennsylvania. Dr. William Osler, of Bal-

timore, explained why it was that Dr. Trudeau had been chosen to open the series of addresses. "The chief of a sanatorium for consumptives," said Dr. Osler, "needs to have a great heart and two great thumbs—the great heart to lead him to sympathize with his patients and deal tenderly with them, and the great thumbs to enable him to repress rigorously any infraction of the necessary rules of the institution." "Seriously," he added, "not only does Dr. Trudeau possess these prime requirements, but he was the pioneer, at least as regards America, in the sanatorium treatment of consumption."

It was truly a striking story that Dr. Trudeau then unfolded. The title of his address was The Development of the Tuberculosis Work at Saranac Lake. He told how, having gone to the Adirondacks years ago in the hope of prolonging his own life, he had practically buried himself there, forty miles distant from the nearest railway, and had braved the rigors of an almost arctic winter at Paul Smith's, then only a resort to which in the summer a few sportsmen betook themselves. In the spring he found himself much improved in health, and he resolved to prolong his residence in the North Woods. Even at that early period he conceived the idea of establishing a sanatorium for consumptives in the North Woods, and he soon interested some of the summer sportsmen in his project. With their aid he built a small cottage, one capable of accommodating two patients. Gradually the good results of the treatment pursued in this little cottage and those that followed it led to such appreciation that now the sanatorium may be called a small village, all the newer buildings substantially constructed and planned and equipped in accordance with our most advanced knowledge of hygienic requirements, in the midst of a settlement that has grown to be a town of 4,000 inhabitants.

The charitable aspect of Dr. Trudeau's enterprise has always been conspicuous. There is a uniform weekly charge to those who are able to pay at all, and the cost of maintaining them is nearly double what they are charged. The deficiency has always been made good by voluntary contributions, and additional gifts have enabled the sanatorium to acquire property several hundred thousand dollars in value, besides establishing a constantly increasing endowment fund. Emphasis should be laid on the

fact that the wealthy, those who were able to pay for treatment in private sanatoria, have always been excluded. The physicians have worked devotedly in return for their bare maintenance, and outside physicians of great eminence, of whom the late Dr. Alfred L. Loomis, of New York, was an example, have cooperated actively with absolutely no compensation.

Dr. Trudeau's results in the arrest and alleviation of pulmonary tuberculous disease are well known to have been most encouraging. It is also well known that his contributions to our advances in knowledge of the disease and of its management have been most important. It may not be so well known that for a long time he had to carry on his investigations under great disadvantages. The science of bacteriology sprang into existence after his enforced retirement from centres of scientific study, but it was necessary for him to master it. Stealing away for a brief period, therefore, he sought and obtained instruction in the rudiments of the science, and thereafter, up to the time of his present laboratory equipment, he studied and learned by himself. Where shall we look for a nobler example of devotion to a beneficent pursuit or of undaunted perseverance under rare difficulties? Happily, Dr. Trudeau has lived to see the splendid results of his efforts. As a philanthropist he deserves to rank with Howard and with Esquirol. Certainly the Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis could not have chosen anybody that could more fitly introduce a course of addresses from which much is to be expected.

INTERSTATE RECIPROCITY IN LICENSING.

Some aspects of this problem were very intelligently discussed by the president of the Medical Society of New Jersey at the meeting held in Asbury Park last June, and we are glad that his address has been published in pamphlet form. The president, Dr. E. L. B. Godfrey, of Camden, considers the two chief forms of interstate reciprocity that have thus far been under trial. The first of them is that of issuing to any licentiate of a reciprocating State a license on application. This he properly likens to compulsory reciprocity. But, he asks, can reciprocation be forced?

And he answers the question in the negative. "No State," he says, "can be compelled to reciprocate by any process of law or retaliation. The theory of compulsory reciprocity may seem to some, at first sight, just to the profession and good State policy. Experience, however, proves it to be unjust to the profession and a bad State policy. It is not a success, and has proved a stumbling block to the extension of interstate endorsement." Dr. Godfrey adduces an abundance of facts to sustain this conclusion from the point of view of justice to the profession. As to the matter of State policy, he says: "Compulsory endorsement of those States only which reciprocate, if engrafted in the statute, would prove detrimental to the profession of New Jersey. Such reciprocity could not be entered into with New York or Pennsylvania or other adjoining States, as has been suggested, because the statutes of these States do not recognize such a provision. Were such a system of reciprocity adopted, it would involve endorsing all the licentiates of reciprocating States, the good with the bad. It would mean, therefore, endorsement on the omnibus plan, since all the licentiates of a State stand on an equal footing." The adjoining States, he adds, are too populous and too overwhelming in the number of their physicians for compulsory reciprocity not to prove detrimental to New Jersey. Moreover, he says, the influx of physicians for summer practice along the coast, in the mountains, by the lakes, and at the suburban resorts would make that system of endorsement still more injurious.

Even voluntary reciprocity, Dr. Godfrey argues, does not meet the requirements of the case—voluntary reciprocity, that is, by agreement between States—for it nullifies a State board's power both to withhold recognition from an unworthy person who has managed to obtain a license from a reciprocating State and to license eminent practitioners from non-reciprocating States. While these objections to voluntary reciprocity may be real, it seems to us that optional reciprocity—open to one reciprocating State as well as to another—might prove equitable and satisfactory, and we hope that the idea of interstate reciprocity will not be given up till much more extensive trials have been made of it than have been made up to the present time.

TYPHOID FEVER IN THE UNITED STATES.

As a nation we ought to be ashamed of ourselves for the never ceasing destruction of life caused by so preventable a disease as typhoid fever. A few years ago we were arraigned for this, and most justly, by Dr. William Osler, of Baltimore. It now appears by the annual report of the surgeon general of the army that during the fiscal year ending June 30th that portion of the military force which was stationed in the United States suffered much more severely from the disease than the detachments quartered beyond our confines. According to Surgeon General O'Reilly, the hospital admission rate for the disease in Cuba and Puerto Rico was only 4.28 and the death rate 0.61 in a thousand, and the same rates were 5.56 and 0.87 in the Pacific islands, while at home the admission rate was 8.58 and the death rate 0.86. The individual soldier's sanitary care of himself, or at least his compliance with sanitary instructions of official origin, is known to the medical profession as probably his most efficient safeguard against typhoid fever. It is well known also that the soldier's vigilance and docility, varied by too frequent relaxation as a consequence of reckless action on the part of high officers of the line, are not at their best when he is at home, in the midst, as he thinks, of salubrity, but are more decidedly manifested when he is on duty in parts that he himself rates as trying to health.

No doubt this consideration goes far toward accounting for the great prevalence of typhoid fever among our troops stationed at home, but no such excuse can be set up for the civilian population. Save for a few of our cities whose water supply is notoriously polluted, typhoid fever is largely the product of rustic carelessness and incredulity. Hard indeed is it to make the average American farmer and the average keeper of the country boarding house take in the idea that milk or water which has for years proved good enough for him—rendered immune perhaps by progressively potent infection—is not also good enough for his city customers or for the stranger within his gates. But we are gaining ground in the effort to disillusionize the rustic, and we must spare no effort until he is brought to a lively comprehension of the dangers that lurk in the contaminated spring or brook and in the unsterilized milk pan. His education in this direction should be a prime object with all sanitary officials.

THE TREATMENT OF COLITIS BY LAVAGE.

The full advantages of the treatment of either acute or chronic colitis by free irrigations have never yet been determined, simply because of the mechanical difficulties of this method. We know that many cases have been benefited and some cured, but we also know that the pain and discomfort attendant upon it, especially in acute cases, are often so great that it cannot be efficiently employed.

Irrigation by means of the double current rectal irrigator is more or less unsatisfactory because of the doubt as to how far up the water passes. Doubtless it can be made to go much higher in experienced than in inexperienced hands; but the best way to be sure of reaching above the rectum is to clamp the tube for the return flow, and that leaves us merely a high enema rather awkwardly administered.

Practically all high irrigation is reduced to the administration of high enemata through long tubes, with or without a return flow, but preferably without, because if the return flow is relied upon to prevent overdistention, harm may be done and accidents happen. The sensation of the patient that the colon is full is the safest indication to cease the application, and even when no attempt has been made to reach very far I have known severe shock and high temperature to follow such an application—shock so severe and temperature so high (104° F.) as to be alarming. Even by this means, the most efficient of all, there is doubt whether we often reach much beyond the sigmoid.

To all methods of treating even the sigmoid, to say nothing of the colon, by sprays or insufflations with compressed air little attention need be given. If anybody is curious as to the possibility of reaching the colon with a spray, let him try two experiments: First, introduce a Kelly tube as far as may be possible. By any light its upper end will be found closed by a tense, pale, reddish membrane stretched firmly over every part of it, which membrane is the lateral wall of the bowel. Occasionally the end may be closed by several folds of membrane converging to a slight depression in the centre, and then the instrument happens to be in the long axis of the gut. Now spray into the tube and against the obstruction with a pressure of twenty pounds. The tube will be filled with the spray, the shirt cuff of the operator will often be ruined by the return, and when things have cleared and he again looks in, all his medication will

be found lying in the tube against the obstructing membrane. As the tube is slowly withdrawn, the rectum always pressing firmly against its end, no fluid will escape and at last all that has been thrown in will have to be caught upon cotton as the tube finally escapes.

More powder than fluid can be forced to lodge within the bowel, because it may adhere along the bowel as the tube is withdrawn, but anything like a diffuse application to the surface of either the rectum or sigmoid is not to be expected.

There is, however, a way to do it, which is the other experiment. Introduce the spray tube into the speculum through a perforated cork, which closes the speculum and prevents the escape of air, or introduce the spray tube three inches into the rectum without any speculum, and apply from ten to twenty pounds pressure. The sudden overdilatation of the large intestine will cause such shock, such *evident* dilatation, and such pain as will end the treatment at once and forever unless the experimenter is very bold or the patient unusually timid about expressing his sentiments.

Once in a great while, but very, very rarely, when a large speculum, preferably a bivalve which can be opened after insertion, is introduced and forcibly distended, air will rush into the rectum as it does into the vagina, and balloon it out, so that its sacculations and so called valves may be plainly seen. Such a rectum might be efficiently sprayed, but the average practitioner will never see such a condition, nor can it be produced at will. To most of us the rectum will still remain what it always has been—a closed tube—in spite of the beautiful schematic pictures of valves and pockets which remind the uninitiated of a highly decorated circular iron staircase seen from below, the steps being the valves and the interspaces the pockets.

Every part of the rectum proper can be reached for local treatment; and diseased points in the sigmoid may be reached through specula; but the only practical way to be sure of reaching all parts of the sigmoid and anything above it is by filling it with medicated fluid.

The creation of an artificial anus is not indicated in these cases, although were it not for the difficulty and danger of closing it I have always thought it might work well in acute, severe, and dangerous cases of colitis when done on the right side.

The temporary valvular anus in the caput coli described and practised by Gibson may open up an entirely new field of treatment. In any event we may learn from it what value there is in thorough lavage. The cases so far reported read very hopefully, but they are all chronic. Why should it not do much better in the acute? It may seem radical, but the treatment of acute ulcerative colitis often needs to be radical to save life, and a good surgeon could do the operation with less shock and suffering than are often caused by unskilled efforts to give a high enema.

CHARLES B. KELSEY.

"ERGOPHOBIA."

A member of our staff recently coined this term in a spirit of humor. It appears, however, that it has actually been in use for some years in the reports of one of the hospitals of Paterson, N. J., though it has not found its way into the dictionaries. For information on the subject we are indebted to Dr. W. K. Newton, of Paterson, who has been kind enough to send us a leaf from one of the hospital reports in which the word figures among the names of patients' ailments. Truly there is nothing new under the sun.

"SIGNED EDITORIALS."

Under this heading the *Chicago Clinic* upholds the general idea of the "signed editorial" as advocated by Dr. Crothers at the New Orleans meeting of the American Medical Association, but deprecates his contention that the medical journals in their editorial pages should neither advocate nor combat debatable positions, but simply serve as inanimate mirrors of professional opinion. We thoroughly endorse what our Chicago contemporary says concerning the matter.

THE PROPOSED STATUE OF VIRCHOW.

We have no doubt that many an American physician will be glad to contribute according to his resources to the fund for the erection of a statue of Virchow in one of the streets of Berlin, the city in which for so many years he lived and taught. From the circular that we have received we infer that contributions may be sent to Professor Waldeyer or Professor Posner.

A JOURNAL OF INFECTIOUS DISEASES.

We are glad to learn that in January there will be issued the first number of the *Journal of Infectious Diseases*, to be edited by Dr. Ludvig Hektoen and Dr. Edwin O. Jordan, in conjunction with Dr. Frank Billings, Dr. F. G. Novy, and Dr. W. T. Sedgwick. We understand that the journal is to be published by the University of Chicago.

News Items.

Society Meetings for the Coming Week:

MONDAY, November 2nd.—New York Academy of Sciences (Section in Biology); German Medical Society of the City of New York; Morrisania Medical Society, New York (private); Brooklyn Anatomical and Surgical Society (private); Corning, N. Y., Academy of Medicine; Utica, N. Y., Medical Library Association; Boston Society for Medical Observation; St. Albans, Vt., Medical Association; Providence, R. I., Medical Association; Hartford, Conn., Medical Society; South Pittsburgh, Pa., Medical Society; Chicago Medical Society.

TUESDAY, November 3rd.—New York Neurological Society; Buffalo Academy of Medicine (Section in Surgery); Elmira, N. Y., Academy of Medicine; Ogdensburg, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Hudson, N. J., County Medical Society (Jersey City); Androscoggin, Me., County Medical Association (Lewiston); Baltimore Academy of Medicine; Medical Society of the University of Maryland (Baltimore).

WEDNESDAY, November 4th.—New York Academy of Medicine (Section in Public Health); Society of Alumni of Bellevue Hospital; Harlem Medical Association of the City of New York; New York Genitourinary Society; Medical Microscopical Society of Brooklyn; Medical Society of the County of Richmond, N. Y. (New Brighton); Penobscot, Me., County Medical Society (Bangor); Bridgeport, Conn., Medical Association.

THURSDAY, November 5th.—New York Academy of Medicine; Brooklyn Surgical Society; Society of Physicians of the Village of Canandaigua, N. Y.; Boston Medico-psychological Association; Obstetrical Society of Philadelphia; United States Naval Medical Society (Washington); Medical Society of City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

FRIDAY, November 6th.—Practitioners' Society of New York (private); Clinical Society of the New York Postgraduate Medical School and Hospital; Baltimore Clinical Society; the Manhattan Clinical Society.

SATURDAY, November 7th.—Manhattan Medical and Surgical Society, New York (private); Miller's River, Mass., Medical Society.

Changes of Address.—Dr. Henry Wallace, from 183 Congress Street, Brooklyn, to Glen Ridge, N. J.

NEW YORK, CITY AND STATE.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending October 24, 1903:

	Week end'g Oct. 24.		Week end'g Oct. 17.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	108	7	89	2
Diphtheria and croup.....	285	39	247	33
Scarlet fever.....	86	2	87	6
Smallpox	2	0	0	0
Chickenpox	28	0	42	0
Tuberculosis.....	322	148	276	128
Typhoid fever.....	90	21	138	16
Cerebrospinal meningitis..	..	3	..	5
Totals.....	921	220	879	190

The German Hospital and St. Mark's Hospital, of New York city, benefit by the will of the late Henry Iden, of Pelham-on-the-Sound, to the extent of from \$200 to \$300 each.

The Penn Yan Medical Society was reorganized on October 12th, and the following officers were elected: President, Dr. Edward M. Scherer, of Penn Yan; vice-president, Dr. Joseph J. Cox; secretary, Dr. William Brady; treasurer, Dr. Charles E. Doubleday. Meetings will be held on the first and third Thursdays of each month.

The Medical Association of Northern New York held its thirty-third annual session at Saranac Lake on October 13th. Officers for the ensuing year were elected as follows: President, Dr. Briggs, of Champlain; vice-president, Dr. R. H. Hutchings, of Ogdensburg; secretary, Dr. R. J. Wilding, of Malone; treasurer, Dr. George H. Oliver, of Malone.

New York Skin and Cancer Hospital, Second Avenue, corner of Nineteenth Street.—The governors of the New York Skin and Cancer Hospital announce that Dr. L. Duncan Bulkley will give a sixth series of Clinical Lectures on Diseases of the Skin, in the Out-Patient Hall of the hospital, on Wednesday afternoons, commencing November 4, 1903, at 4.15 o'clock. The course will be free to the medical profession. William C. Witter, Chairman of Executive Committee.

New York Orthopædic Dispensary and Hospital, 126 East Fifty-ninth Street.—The trustees of this institution announce that the surgeon-in-chief, Dr. Russell A. Hibbs, will give a course of clinical lectures on Orthopædic Surgery at the institution, on Tuesday and Thursday afternoons, at four o'clock, from November 10th to December 15th (both inclusive). The course will be free to the medical profession and students. No lecture will be given Thursday, November 26th. J. Archibald Murray, Chairman, Committee on Clinical Instruction.

Cornerstone Laid of New Hospital at Utica.—During a heavy rain storm on October 17th, the cornerstone of the new St. Luke's Hospital, at Utica, N. Y., was laid by Coadjutor Bishop Olmsted, who used a handsome silver and ivory trowel, presented, in honor of the occasion, to Frederick Towne Proctor, President of the board of managers. The building will stand on the highlands a little west of the State hospital. Twelve rooms or so are to constitute an Old Ladies' Home. The institution will cost in the neighborhood of \$170,000.

In Memoriam, Dr. M. F. Pilgrim.—At a meeting of the faculty of the New York School of Physical Therapeutics, the following resolutions were unanimously adopted:

Whereas, Death has removed from us our esteemed associate and confrère, Dr. Maurice Fiescher Pilgrim, whose faithful service as a teacher in the school, marked by keenness of thought, earnestness of conviction, honesty of purpose, loyalty and kindness of personality, endeared him to all his fellow workers.

Be it Resolved, That we, members of the faculty of the New York School of Physical Therapeutics, extend to his bereaved family and friends sympathies and condolence, and, in token of this esteem, the secretary be instructed to forward a copy of these resolutions to his family, and to forward them for publication in the *Journal of Advanced Therapeutics*, *New York Medical News*, *American Medicine*, *Journal of the American Medical Association*, *New York Medical Journal* and *Philadelphia Medical Journal*, Consolidated, and *Boston Medical and Surgical Journal*. Hermann Grad, M. D., secretary.

PHILADELPHIA AND PENNSYLVANIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

	Week end'g Oct. 24.		Week end'g Oct. 17.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	9	8	54	4
Diphtheria	56	10	97	7
Scarlet Fever	59	2	70	5
Typhoid fever	80	5	103	9
Consumption .....	..	48	..	50
Cerebrospinal fever	0	0	..	..

The Maternity Department of the Samaritan Hospital, of Philadelphia, in charge of Dr. J. C. Applegate, was formally opened on October 21st.

Dr. Thomas J. Buchanan, an assistant surgeon at the Jefferson Hospital, of Philadelphia, and a member of the Board of Education, is ill with typhoid fever.

Dr. Judson Daland has been elected Professor of Clinical Medicine at the Medico-Chirurgical College, of Philadelphia. He is a graduate of the University of Pennsylvania, his preceptor having been Dr. William Pepper.

Philadelphia Pathological Society.—The following officers have been elected for the ensuing year: President, Dr. Alfred Stengel; vice-presidents, Dr. Joseph McFarland, Dr. M. P. Ravenel, Dr. W. M. L. Coplin, and Dr. Joseph Sailer; secretary, Dr. D. J. McCarthy; treasurer, Dr. T. Westcott; curator, Dr. A. P. Francine; recorder, Dr. David Riesman.

Philadelphia Hospital.—Many of the wards of the Philadelphia Hospital are being thoroughly fumigated. This is being carried on with especial care in the women's wards for nervous diseases. The tuberculosis pavilions are rapidly nearing completion. They are built largely of glass, and are six in number. A marked feature in the improvements at the hospital is the increasing cleanliness.

Phipps Institute Lecture.—The first of the series of lectures on tuberculosis, to be held under the auspices of the Phipps Institute, of Philadelphia, was held in Witherspoon Hall, of that city, on the evening of October 24, 1903, by Dr. Edward L. Trudeau, of Saranac Lake, N. Y., who discussed the history of that work in the Saranac Lake Sanitarium. The meeting was opened by Dr. Flick, who introduced Dr. Osler, who in turn presented Dr. Trudeau.

Unveiling at Pennsylvania Hospital.—The benefactions bestowed by Stephen Girard on the Pennsylvania Hospital, of Philadelphia, were fittingly commemorated on October 27th, by the unveiling of a bronze tablet, dedicated to his memory. The tablet recalls a sad chapter in Girard's life. It was in the Pennsylvania Hospital that the merchant's wife passed her later years, bereft of her reason, but carefully nursed and provided for by her husband. It was here that she spent years, and when death finally came, her body was buried in the grounds of the institution. Her grave was marked, but time effaced this, and the exact whereabouts of her bones is not known. It is generally believed, however, that the tablet unveiled to-day is in proximity to

the grave. When the building was erected a search was made for the remains without result.

Philadelphia Health Statistics.—The returns of the health officer of the city of Philadelphia for the week ending October 24, 1903, is an encouraging one. All of the contagious diseases showed a marked decrease as compared with the week ending October 17th. The most notable incident was in the case of smallpox, of which only nine new cases with eight deaths were reported as compared with fifty-four new cases and four deaths for the preceding week. Eighty cases of typhoid fever were reported as compared with one hundred and three cases for the previous week. Of the nine new cases of smallpox, five occurred in the Twenty-eighth Ward, which still remains the centre of the disease. It is of interest to note that the deaths occurring from heart disease during the week ending October 24th equaled in number those due to tuberculosis.

Alvarenga Prize of the College of Physicians of Philadelphia.—The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Señor Alvarenga, and amounting to about one hundred and eighty dollars, will be made on July 14, 1904, provided that an essay deemed by the committee of award to be worthy of the prize shall have been offered. Essays intended for competition may be upon any subject in medicine, but cannot have been published, and must be received by the secretary of the college on or before May 1, 1904. Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within the name and address of the author. It is a condition of competition that the successful essay or a copy of it shall remain in possession of the college; other essays will be returned upon application within three months after the award. The Alvarenga Prize for 1903 has been awarded to Dr. William S. Carter, of Galveston, Texas, for his essay entitled *The Relation of the Parathyroids to the Thyroid Gland*.

CHICAGO AND ILLINOIS.

Statement of Mortality for the Week Ended October 24, 1903, compared with the preceding week, and with the corresponding week of 1902. Death rates computed on estimated midyear populations of 1,885,000 for 1903 and of 1,820,000 for 1902:

	Oct. 24, 1903.	Oct. 17, 1903.	Oct. 25, 1902.
Total deaths, all causes	442	459	483
Principal causes of deaths—			
Acute intestinal diseases	25	51	28
Apoplexy	11	17	12
Bright's disease	38	28	31
Bronchitis	8	8	12
Consumption	52	45	47
Cancer	22	26	22
Convulsions	6	8	15
Diphtheria	18	20	20
Heart diseases	32	35	50
Nervous diseases	20	26	36
Pneumonia	49	38	37
Scarlet fever	3	3	5
Suicide	12	8	15
Typhoid fever	11	16	14
Violence (other than suicide)	28	28	28
Whooping cough	1	1	2

The Municipal Laboratory at Chicago, Ill., will have for its new superintendent, Dr. George C. Hunt, of the health department, who will succeed Dr. W. K. Jaques.

Smallpox Near Chicago.—Twenty-one cases of smallpox have been detected in the small town of Lemont, near Chicago, by the health inspectors of the latter city. It is thought that the discovery was made by the accidental wandering of one unsuspecting sufferer to a Chicago hospital.

Infectious Diseases.—Diphtheria continues to increase—one hundred and six cases reported, as against eighty-nine during the previous week. While reports come from all parts of the city, the northwest section is most affected. Measles, scarlet fever, and whooping cough are at a minimum. Only one case of smallpox was found—an unvaccinated young woman from Lemont. The smallpox situation at that town is serious, but the officials are vaccinating, isolating, and disinfecting.

Chicago Milk and Water.—Both the milk and water supply have been of satisfactory quality during the week, and last week's prediction of a diminution of typhoid and other impure-water diseases is renewed. Of 134 samples of milk and cream brought to the office, chiefly by milk dealers, only 2.2 per cent. were found below grade. Of 453 samples collected by the inspectors, largely in the poorer districts, 3.9 per cent. were below grade. Water from the Lake View, C. H. Harrison, and Hyde Park tunnels was 100 per cent. "safe;" from the Chicago Avenue and Four-mile it was 83 per cent. "safe."

Spitting, An Acquired Habit.—In the Department Circular—Suggestions for the Teaching of Cleanliness Among School Children—the first injunction to the teacher is that children should be taught "Not to spit; it is rarely necessary. To spit on a slate, floor or sidewalk is an abomination." Until this injunction is heeded and enforced antisputting ordinances will do little good. The spitting habit is acquired early in life. It can be best and most surely suppressed at the same period. Stop the beginning. All teachers, from the kindergarten up, should wage war against spitting. The child is an imitative little animal and to too many his ideal is the hoodlum and street arab who can squirt through his teeth. Following him as an example can be prevented as readily as imitation of his other undesirable traits. Teachers have it in their power to make "Don't spit" placards unnecessary.

GENERAL

Women Students at Tufts.—In the freshman class of the medical school of Tufts University at Medford, Mass., of 150, there are twenty women.

The Quincy (Mass.) City Hospital has received a bequest of \$1,000 by the will of the late Elias A. Perkins of that town.

Trachoma in St. Paul, Minn., will henceforward exclude pupils from the public schools, according to a resolution adopted by the school board on October 21st.

The Hebrew Hospital and Asylum Association, of Baltimore, Md., has received fifty dollars from the will of the late Samuel E. Fleischer, of that city.

The Rhode Island Hospital, of Providence, and the Home for Aged Men of the same city have been bequeathed \$5,000 each by the will of the late William D. Davis.

The Board of Health in Montreal, Can., is trying to stop the spitting nuisance, and Dr. Lamberge, the president, is desirous of having penal power to put an end to the habit. Requests are posted in all parts of the city, appealing to the thoughtless.

The Jackson County Medical Society, at its meeting on October 15th at Kansas City, Mo., elected the following officers: President, Dr. J. W. Kyger; vice-president, Dr. E. H. Thraillkill; secretary, Dr. E. L. Chambliss; treasurer, Dr. L. W. Luscher; censor, Dr. S. P. Child.

A Detention Hospital at Milwaukee, Wis., is wanted, according to a report rendered by Dr. E. C. Grosskopf, superintendent of the county institution, on account of the danger of taking in infectious cases. Such a building could be erected for \$30,000.

A Medical Student Dies on the Football Field.—On October 21st, Robert E. Lewin, right guard of the Baltimore Medical College football team, was seized with a stroke of paralysis during a game with the Naval Academy eleven, and died shortly after he was carried from the field. Lewin's home was in Plainfield, N. J.

The State Health Officers of Connecticut.—A meeting composed of city, State, and county health officers, was held at New Haven on October 15th and a permanent organization was formed. The following officers were elected: President, Dr. D. A. Mahl, of Hartford; secretary, Dr. Wilson, of Meriden. Resolutions regarding the notification of contagious diseases to householders were adopted.

The Association of Hospital Superintendents closed its fifth conference at Cincinnati, O., on October 22nd, by electing the following officers: President, D. D. Test, of the Philadelphia Hospital; vice-presidents, Dr. Charles O'Reilly, of the Toronto Hospital, Dr. John M. Peters, of the Rhode Island Hospital, at Providence, and George S. Sawyer, of the Baptist Hospital, at Chicago; secretary, Mrs. M. A. Lawson, of the General Hospital, at Detroit.

The Georgia Board of Medical Examiners, consisting of Dr. J. B. S. Holmes, President, I. H. Goss, secretary, F. D. Patterson, E. A. Jelks, and E. R. Anthony, met in annual session at the capital in Atlanta on October 13th. Out of twenty-seven applicants, twenty-five passed and two failed. The board having requests from several States on the subject of reciprocity went before the Attorney-General of the State of Georgia, John C. Hart, for an official statement, which was against reciprocity until the law can be so amended granting this power to the board. This matter will be brought to the attention of the next General Assembly by Governor Terrell, and

will no doubt be amended. Next regular meeting will be in April, 1904.

The St. Tammany Parish Medical Society was organized according to the laws governing affiliation with the State and national medical societies on October 20th at Covington, La. The following officers were elected: President, Dr. R. B. Paine, of Mandeville; vice-president, Dr. J. F. Pigott, of Covington; secretary and treasurer, Dr. H. D. Bulloch, of Covington.

A Belated Diagnosis.—A veteran of Olive Centre, Mich., on applying recently for treatment of a painful shoulder to a local practitioner, learned from use of the x ray that he was carrying a piece of a shot in the affected area; he remembered that he had been wounded at the battle of Fort Donelson, on March 5, 1863, but the fragment of shell had hitherto escaped attention.

The Shelby County Medical Association was reorganized on the 13th instant at Shelbyville, Ind., under rules which permit membership to the graduate of any standard medical school. The following officers were elected: President, Dr. Charles J. Cook, of Gwynneville; vice-president, Dr. B. G. Keeney, of Shelbyville; secretary, Dr. F. E. Ray, of Shelbyville; treasurer, Dr. Frank Campbell, of Shelbyville.

The Tri-State Medical Society completed its fifteenth annual meeting at Atlanta, Ga., on October 15th, and elected the following officers: President, Dr. F. B. Sloan, of Cowan, Tenn.; vice-presidents, Dr. George E. Petty, of Memphis, Dr. J. M. Crawford, of Atlanta, Ga., and Dr. H. L. Appleton, of Center, Ala.; secretary, Dr. Frank Tester Smith, of Chattanooga, Tenn.; treasurer, Dr. George R. West, of Chattanooga.

Official Rank for Surgeons in the Navy.—It is said that the surgeons in the navy are dissatisfied with their present rating in the service, and desire to have full rank like other officers. Surgeon-General Rixey, in his annual report, recommends: That Congressional action be asked for authority to rename the different grades of the medical corps now existing as follows: In place of Surgeon General, Surgeon Admiral, and in the other grades, Medical Director to become Surgeon Captain; Medical Inspector, Surgeon Commander; Surgeon, Surgeon Lieutenant Commander; Passed Assistant Surgeon, Surgeon Lieutenant, and Assistant Surgeon, Surgeon Lieutenant (junior grade).

Licensed to Practise in Minnesota.—The following twenty-three physicians out of thirty-six applicants have been licensed to practise in Minnesota, by the examining board: D. J. Cooper, of Owatonna; J. H. Boulter, of Picton, Ont.; C. E. Johnson, of Pilot Mound, Iowa; H. W. Rogers, of Montevideo; G. R. Reay, of Hokah; C. C. Smith, of Merrill, Wis.; Otto F. Johnson, of St. Paul; E. A. Goldsmith, of St. Paul; R. B. Fields, of Rochelle, Ill.; Frederick Cook, of Prescott, Wis.; H. O. Schaleben, of Minneapolis; R. O. Juliar, of Shelly; Clyde E. Gray, of Minneapolis; C. C. Stevens, of Jasper; D. H. Bath, of La Crosse, Wis.; W. L. Freeman, of Eyota; J. H. Van Dyke, of Alexandria; P. E. James, of Hutchins; E. A. Lupton, of Minneapolis; M. A. Desmond, of Rushford; H. S. Fairall, of

Superior, Wis.; Benjamin Thomas, of Chokio; H. N. Meleck, of Minneapolis. The following physicians who have been admitted to practise in other States were given licenses by the board yesterday: I. Linebarger, of Chicago; C. M. Echols, of Fort Atkinson, Wis.; Caroline N. Niemann, of Chicago; J. G. Schall, of Oshkosh; F. J. March, of Stanley, Wis.; J. H. J. Higgs, of Florence, Wis.; C. A. Critchlow, of Patch Grove, Wis.; J. V. Wenzel, of La Crosse, Wis.; J. W. Foley, of Ann Arbor, Mich.; G. W. Moll, of Foster City, Mich.; E. P. Banning, of Fort Wayne, Ind.

The question of the admission of the Minnesota osteopaths who want to practise here was laid over until the January meeting of the board, and will be one of the questions discussed at the interstate reciprocity convention soon to be held in Chicago.

The Enno Sander Prize.—The essayist securing first place will receive a gold medal of the value of one hundred dollars. The essayist securing second place will receive a life membership in the association, of the value of fifty dollars. Subject of the competition for 1904: The Relation of the Medical Department to the Health of Armies. Conditions of the competition: 1. Competition is open to all persons eligible to active or associate membership in the Association of Military Surgeons of the United States. 2. The prize will be awarded upon the recommendation of a board of award selected by the executive committee. The board will determine upon the essay to which the prize shall be awarded, and will also recommend such of the other papers submitted as it may see fit for honorable mention, the author of the first of which shall receive a life membership in the association. 3. In fixing the precedence of the essays submitted, the board will take into consideration—primarily—originality, comprehensiveness, and the practicability and utility of the opinions advanced, and—secondarily—literary character. 4. Essays will consist of not less than ten thousand, nor more than twelve thousand words, exclusive of tables. 5. Each competitor will send three typewritten copies of his essay in a sealed envelope to the secretary of the association, so as to reach that officer *at least one month before the next ensuing annual meeting*, in the present case on or before September 10, 1904. 6. The essay shall contain nothing to indicate the identity of the author. Each one, however, will be authenticated by a *nom de plume*, a copy of which shall, at the same time as the essay, be transmitted to the secretary in a sealed envelope together with the author's name, rank, and address. 7. The envelope containing the name of the successful competitor will be publicly opened at the next succeeding annual meeting of the association, and the prize thereupon awarded. 8. The successful essay becomes the property of the Association of Military Surgeons of the United States, and will appear in its publications. Board of Awards, 1904: Lieutenant Colonel John Shaw Billings; U. S. Army; Brevet Brigadier General George Ryerson Fowler, New York; Surgeon Henry Gustav Beyer, U. S. Navy; John Cropper Wise, President; James Evelyn Pilcher, secretary; Carlisle, Pennsylvania.

Pith of Current Literature.

BERLINER KLINISCHE WOCHENSCHRIFT.

September 21, 1903.

1. Hysterical Autosuggestion in Children,
By C. A. EWALD.
2. Sensitiveness of Tests for Iodine, By E. ROGOVIN.
3. Action of Bile Upon the Heart, By K. BRANDENBURG.
4. Vegetable Foods in Gout and Nephritis, By W. HALL.
5. Sanoform as a Substitute for Iodoform,
By G. BAMBERG.
6. Hypnotism as a Curative Agent, By H. DELIUS.

1. Autosuggestion in Children.—Ewald reports three cases of hysteria occurring in boys of from seven to nine years of age. In all the cases, imperative conceptions existed, but by removing the children from their usual environment, a cure was rapidly brought about. In all the cases, the abdominal organs were the seat of the fancied lesions.

2. Iodine Tests.—Rogovin has made experiments with many of the tests for iodine described in the literature, upon transudates and the urine. He found that when potassium iodide had been taken, even in very minute doses, its presence could be demonstrated in the urine. Harnack's reaction and Sandland's test, he found useful. The former consists in the addition of nitric and sulphuric acids and chloroform or benzine to the suspected fluid, with or without the use of starch.

3. Action of Bile Upon the Heart.—Brandenburg has experimented on frogs and dogs and finds that the introduction of a very small quantity of bile into the circulating blood has a decided effect upon the heart. This seems to be due to the irritation, by the bile, of the nerves of sensation of the heart acting reflexly upon the pneumogastric nerve, causing temporary weakness of the auricular contractions and slowing of the entire heart beat. It appears that this action is much more rapid experimentally in animals than in man suffering from jaundice. The author concludes that in cases of icterus a reflex action upon the vagus causes a slowing of the cardiac beat.

4. Vegetable Diet in Gout and Nephritis.—Hall's analyses show that oats, beans, peas, asparagus, and onions contain a considerable quantity of purin-nitrogen. Among drinks, beer of various kinds appears to contain the purin-nitrogen also, and it is evident, therefore, that beer and the named vegetables should be excluded from the diet of those suffering from gout and nephritis.

September 28, 1903.

1. Chemical Changes Evoked by Partial Proteid Metabolism in the Body, By F. UMBER.
2. Experimental Researches on Alopecia and the Localization of Skin Diseases, By A. BUSCHKE.
3. Soxhlet's Nutritive Sugars in the Treatment of Infants,
By H. BRUENING.
4. Tumors of the Hypophysis, By H. ROSENHAUPT.
5. The Care of the Venereally Diseased,
By E. SAALFELD.

1. Proteid Chemical Changes.—Umbert's experiments lead him to the conclusion that by artificial partial inhibition of total proteid destruction in the living body, certain proteid bodies result which remain constant in their carbon and nitrogen quotients, but which, in their internal structure, represent chemically degenerated bodies. His studies show how little reliance can be placed upon the determination of carbon, and especially of nitrogen, excretion when the intermediate steps of proteid metabolism are considered.

5. Sexual Diseases.—Saalfeld urges the institution of hospitals especially for those suffering from venereal diseases. He sees, in their establishment, a decided step in advance in the prophylaxis and care of venereal disease, and believes that the influence of such hospitals would be beneficial while their charity would not be abused.

ZENTRALBLATT FUER CHIRURGIE

September 19, 1903.

1. Use of Adrenalin in Infiltration Anæsthesia,
By H. BRAUN.
2. Resection of the Ribs in Severe Scoliosis, By P. BADE.

1. Adrenalin in Infiltration Anæsthesia.—Braun has used adrenalin as a local anæsthetic in very many cases, and strongly recommends the addition of one or two drops of adrenalin to every 100 c. c. of a $\frac{1}{10}$ th per cent. solution of cocaine or eucaine, when used for infiltration anæsthesia. This does not completely occlude the mouths of the arteries, so that they can be caught and tied.

2. Resection of Ribs for Scoliosis.—Bade records a case in which he resected the ribs for the symptomatic relief of a very marked kyphoscoliosis. The seventh rib was not attached to the sternum, but rested beneath the arch of the other ribs, and caused great pain in breathing. Bade resected about two inches of this rib with very good result.

ZENTRALBLATT FUER GYNAEKOLOGIE.

September 19, 1903.

1. Shall the Umbilical Cord be Felt for About the Child's Neck as Soon as the Head is Born?
By B. S. SCHULTZE.
2. Chloroform Death or Acute Uræmia?
By F. HAMMER.
3. The Artificial Feeding of Infants,
By W. ZANGEMEISTER.

1. Feeling for the Cord About the Neck.—Schultze maintains, after reviewing the conditions present after the birth of the head, that feeling for the cord about the neck of the child is liable to add another element to the possibility of infection, and is unnecessary at best, as the cord does not need loosening after the head is born. Even if the cord does not become lax and it is necessary to cut it, there is time enough for this procedure after the shoulders have been delivered.

2. Chloroform Death or Uræmia.—Hammer records the case of a woman who had a severe hæmorrhage, rendering tamponing necessary, after a miscarriage at six months. A large pla-

cental polyp was found to be the source of the bleeding. While the patient was under the anæsthetic, chloroform being used, deep asphyxia was noted. Two hours later tonic contractions appeared, and seven hours later death followed in coma. At the autopsy a myocarditis was found, as well as an acute parenchymatous nephritis. Hammer believes the death to have been due to an acute uræmia arising during the anæsthesia.

LYON MEDICAL.

September 27, 1903.

Clinical Lessons on the Treatment of Syphilis (*To be continued*).

By GAILLETON.

Treatment of Syphilis.—Gailleton says the treatment cannot be summarized in any single formula; the great success of intramuscular injections had not dissipated all our difficulties. Syphilis is an infectious, contagious, microbic (?) disease, peculiar to man, chronic, recurrent with long intermissions, attacking all the organs and characterized by simple and specific inflammatory lesions. It may last from two to twenty years; the first stage, three to six months; the second, six to twenty-four months; the third, from the second year on. The second stage is characterized by lesions of the skin, roseola, erythema, papules; of the mucosa, erosive plaques or papules, ulcers of the tongue, larynx, and generative organs; of the nervous system, hyperæsthesia, neuralgia, paralysis; of the glands, adenitis, cervical, axillary, mastoid, popliteal, or epitrochlear; of various organs, the kidney, spleen, liver, eye, testicle, epididymis. The third stage, coming on usually about the fourth year, favored chronic inflammation, beginning with endarteritis and periarteritis and leading to necrobiosis but liable to terminate in sclerosis. These lesions are found in all tissues and organs.

PRESSE MEDICALE.

September 19, 1903.

1. Mitral Heredity, By E. HIRTZ.
2. Dysentery. A Septicæmic Disease, By GUIBAUD.
3. The Relations of Diabetes with Acromegaly and Basedow's Disease, By A. LORAND.

1. **Mitral Heredity.**—Hirtz says that arterial heredity is now an accepted fact and thinks cardiac heredity should be also, notwithstanding the contrary opinion of Huchard. Hirtz discusses four cases, one of a girl seventeen years of age, with arrested development and tuberculosis. Her mother is a large woman, but mother and child alike have precisely the same form of mitral stenosis. The second was a woman forty-two years of age, with œdema of the lower limbs, albuminuria, and dyspnœa; auscultation shows mitral stenosis. Her boy, eleven years of age, has the same defect, although not presenting any symptoms. The third was a girl, sixteen years of age, whose mitral stenosis was discovered during auscultation for bronchopneumonia; later on, the same trouble was found in her mother. The fourth case is still more striking; a paternal grandfather dies suddenly of aneurysm (?); the maternal grandfather dies suddenly while getting out of bed, probably from a cardiac trouble; the father and mother are

well and have six children: Paul, eighteen, never sick, but auscultation discloses a præstystolic murmur and duplication of the second sound; Auguste, sixteen, typhoid fever in childhood, dyspnœa, præstystolic murmur, diastolic murmur, duplication of second sound at base; Léonie, fifteen, never sick, but easily loses breath, murmur of pulmonary artery continued along the vessels of the heart, mitral præstystolic murmur, duplication of second sound, præstystolic trembling on palpation; three younger children are quite healthy. Weil and Cochez report cases of similar heredity. An interesting fact is that hereditary mitral stenosis is often accompanied by arrested development, a condition for which Lorrain has suggested the name of *mitral nanism*; frequently, too, it is connected with harelip, deformed eyebrows, pigeon-breast, congenital amputation of the fingers, etc. The condition is not common, Hirtz having seen only some thirty cases. The treatment is most severe on the lines of inflexible hygiene. Peter's protocol is recalled: Girl, don't marry; woman, don't conceive; mother, don't nurse; although, as Hirtz observes, the first rule includes the others. Asystolism should be forestalled by minute doses of digitalis. Such treatment may result in a long if not very robust life.

2. **Dysentery.**—Guibaud, after weighing the evidence, is inclined to believe that Durham, the alienist, is correct in attributing this disease to a microorganism he isolated from the liver, spleen, and kidneys of seven insane patients afflicted therewith. The intestinal ulcerations are then only local manifestations of a constitutional poisoning. The serum that Lesage, following up this lead, prepared, has in Guibaud's experience produced remarkable results. Milk diet is necessary with very gradual return to full diet. "To place the gut in a gutter," summarizes the local treatment.

3. **Diabetes, Acromegaly, Basedow's Disease.**—Lorand says all have the same ætiology and heredity and may coexist. Thyreoid enlargement is not uncommon in diabetes, and is always present when diabetes complicates acromegaly. The administration of thyreoid extract often produces glycosuria. In myxœdema, glycosuria is absent, and the latter, when complicating acromegaly, disappears when myxœdema becomes established. In one case of Basedow's disease, two hundred grammes of grape sugar were given daily without producing glycosuria, and it was found subsequently that myxœdema was developing. Cancer and tuberculosis exclude diabetes, although a diabetic may become tuberculous. The prognosis of diabetes in old age is improved by the diminution of thyreoid activity. Opium, sodium phosphate, and sodium salicylate diminish thyreoid activity and also glycosuria. A trait common to the three diseases is their heredity; they also alternate from parent to child.

September 23, 1903.

1. Traumatic Hæmatoma of the Dura Mater, By RAYMOND.
1. **Hæmatoma of Dura Mater.**—Raymond's patient, a carpenter, fell off a ladder, a distance

of about six feet, and was unconscious for ten hours. When he recovered there was evident only a conjunctival ecchymosis. He worked for eight days, but then began to suffer from intense headache with hebetude and drowsiness during the day. On examination, physical condition seemed good, but patient was stupefied and moved his head and jaw mechanically. Legs and neck were slightly contracted and Kernig's sign very marked. Temperature and respiration, normal, but the pulse had slowed down to fifty. Lumbar puncture gave a positive diagnosis, the cerebrospinal fluid being an intense greenish yellow (the "chromodiagnosis" of Sicard). Operation was decided upon, but the absence of definite symptoms rendered the trephining point doubtful; the fact that there was great pain on percussion of the left side of head, however, decided the surgeon to trepan there and an immense hæmorrhagic area was discovered just under the dura mater surrounding the fissure of Rolando and extending from the frontal convolutions to the parietal. Immediate results were good, although some aphasia and even aphæmia with deafness and agraphia persisted. A second operation gave vent to 250 grammes of pus, after which a cure was rapid. Raymond gives instructions as to differential diagnosis in such cases and states that the operation may be a simple trephining, the tying of the middle meningeal artery, or a curetting of the affected area. The results of bleeding or the local application of ice are not satisfactory.

REVISTA DE CIENCIAS MEDICAS DE BARCELONA.

Year XXIX, No. 7, 1903.

1. Measles and Beer Yeast, By ZARIQUIEY.
2. Conservative Surgery in Annexial Lesions, By M. A. FARGAS.

1. **Measles and Beer Yeast.**—Zariquiey has used beer yeast as a prophylactic against measles in ten cases after exposure to that disease; the remedy being given from six to ten days before the onset of prodromal symptoms. In all, no effect upon the length of the incubation stage was seen; neither did any subject escape the disease. The remedy failed to influence the eruption and the characteristics of the blood and urine usually apparent in measles were unchanged by its use. Noteworthy is the fact that suppurative otitis and bronchopneumonia occurred with equal frequency among those treated with and without beer-yeast; moreover, one case complicated with bronchopneumonia and treated with beer yeast, developed an enormous abscess upon the shoulder; and in a second case, so treated, abscess of the lung occurred. The temperature was wholly uninfluenced by the drug.

2. **Conservative Surgery.**—Fargas summarizes this subject as follows: (1) Conservation of the ovary, even though partial, exercises a favorable influence upon the organism by preserving the ovary's internal secretion, ovulation, and menstruation if the uterus is intact. (2) Conservation of a more or less damaged Fallopian tube renders possible future fecundation, if the ovary is present. (3) Conservation of the tube without the ovary serves no purpose, so far as known. (4) In benign neoplastic affections of the ovary, that organ may almost

invariably be preserved by employing resection alone. (5) In trophic affections of the annexa, conservative operations are indicated in the majority of cases. (6) In infectious affections, conservative surgery may be employed, provided the condition of the lesion justifies the hope that anatomical and functional regeneration may take place. (7) Great caution should be observed in the application of conservative measures when the virulence of the infection is at its height. (8) The exigencies of technics do not justify unnecessary mutilation. (9) (10) The facility and innocuity of conservative operations have been amply demonstrated. (11) The contraindications and limitations of such operations are numerous and should be carefully considered. (12) The technics of such interventions is varied and adequate to each case. (13) The best route is by laparotomy. (14) Conservative operations are much more scientific than radical operations. (14) Contemporary gynæcology, with a more perfect technics and knowledge of the lesions of the annexa, should treat the genital functions with a greater respect than obtained during the latter years of the past century.

RIFORMA MEDICA.

July 15, 1903.

1. Total Laryngectomy for Malignant Tumor, By A. DE CORTES.
2. On the Clinical Significance of the Elimination of Glycosuric Acid in the Urine, By ENRICO REALE.
3. Aneurysm of the Central Artery of the Spinal Cord with Secondary Hæmatomyelia, By PIETRO GUIZZETTI, and AURELIO CORDERO.
4. The Defensive Function of the Omentum, By RAFFAELE PIRRONI.
5. Researches on Some Organic Extracts, By G. GHEDINI.

1. **Laryngectomy for Cancer.**—De Cortes reports the case of a man, aged sixty-seven years, from whom he removed the whole larynx for a cancerous growth on one vocal cord. The symptoms—loss of voice and dyspnœa—appeared a year before admission. There was no salivation, fetid breath, or hæmorrhages from the larynx. Solid food could not be eaten without pain. Liquids, however, were swallowed without difficulty. The tumor was of the size of a small almond, and situated in the left ventricle. The cartilages were so infiltrated that the mere extirpation of the growth, microscopically proved to be cancerous, would have been useless; therefore the whole larynx was removed. The patient was seen three years later and was found in good health, although his voice had never returned. He spoke in an aphonic whisper, but managed to make himself understood. The good result was due to an early diagnosis and thorough operative procedure.

2. **Significance of Glycosuric Acid in the Urine.**—Reale found, in 1900-1901, and his studies were confirmed by Mayer in Germany, that the appearance in the urine of more or less noteworthy amounts of glycuronic acid, chiefly demonstrable under the guise of glycuronic indican (indoxyl glycuronic acid) is a valuable sign of a

diminished general organic oxidation and particularly of lithæmia. The experience of the years that followed this announcement tends to confirm it, but several voices have been recently raised against this theory in Germany. The author considers the adverse criticisms of the proposition in question, and repeats that the synthesis of the aromatic bodies is effected normally through sulphuric acid, and that, under abnormal conditions, it takes place with glycuronic acid. An example of such a condition is the overfeeding with carbohydrates or the inefficient oxidation of these bodies in the organism. Analogously to glycosuria there is a glycuronicuria (alimentary or spontaneous).

4. Defensive Action of Omentum.—Pirone says that the omentum is a defender of the peritonæum, of the abdominal organs, and hence of the whole body. It is a protector through its plastic properties, covering and encapsulating diseased organs and infected spaces; and it also promotes phagocytosis toward injured or diseased tissue. He adduces experimental studies and histological investigations in support of this contention, which was first brought forward by De Renzi, and Boeri (*Riforma medica*, Vol. IV, 1902). Pirone experimented by ligating the pedicles of the spleen in rabbits, and watching the defensive evolutions of the omentum. He concludes that the omentum is a true flying column of troops which comes to the rescue of the attacked tissues in the abdomen, whenever called upon. It is probable that the defensive action is manifested through chemiotaxis evoked by means of the lymphchannels in the membrane itself. If the spleen is injured (by the ligation of its arteries), so as to produce necrosis of its tissues this organ is surrounded by the epiploon, and an inflammatory process develops which wraps the necrosed spleen in connective tissue penetrating into the parenchyma of the spleen. The endothelial cells of the omental serous membrane become macrophages devouring and carrying away the detritus of the spleen, which becomes disintegrated. The epiploon ends by destroying the spleen in virtue of this double action of encapsulation and phagocytosis.

5. Action of Organic Extracts.—Ghedini has treated animals (dogs, and lambs) for a number of months with extracts from the pancreas, thyroid, thymus, brain, testes, ovaries, and the suprarenal capsules of guinea pigs and of calves. Solutions were subcutaneously injected into the animals, all the extracts being used in each case, and the organs and tissues examined microscopically. The results obtained in 14 animals showed no selective affinity on the part of different extracts for certain organs, but that they acted as general toxins. The only changes found were inflamed, degenerated, and infiltrated lymphnodes, especially in the axillæ and inguinal regions; and similarly affected livers, kidneys, and spleens in the animals thus treated. The extracts were therefore poisons of a general character, without specific affinities, acting chiefly on the organs that eliminate noxious substances.

ROUSSKY VRATCH.

August 9, 1903.

1. The Significance of Bitters in Digestion.
By P. J. BORISSOFF.
2. Ankylosis of the Spine. Bechterieff's Disease,
By L. M. POUSSEP.
3. Experimental Researches on the Physiology of the Thoracic Portion of the Vagus Nerve in Connection with the Question of Acute Inflammation of the Lungs (*Concluded*),
By M. B. ZIHLE.

1. Value of Bitters in Digestion.—Borissoff concludes an experimental study of the action of bitter substances upon the digestive capacity of the stomach by saying that the administration of small amounts of bitters to patients in bed is very useful, as it increases the secretion of the gastric juice, but that the use of bitters in large amounts for a considerable time, especially in pills, is to be avoided, as it is not only useless, but injurious. He finds that the most effective way of giving bitters to patients is in the form of "appetite drops," ten or twenty drops of which can be given before meals in a wineglassful of water.

PRAKTITCHESKI VRATCH.

June 21, 1903.

1. A Case of Primary Erysipelas of the Larynx,
By R. A. KOUTCHERSKI.
2. Methods of Dealing with Accidental Incisions of the Ureter During Operations (*Concluded*),
By I. B. ONOUFROVITCH.
3. The Therapeutic Application of Antistreptococcus Serum in Erysipelas and in Puerperal Fever,
By N. A. RAVITCH.

1. Primary Erysipelas of the Larynx.—Koutcherski reports the case of a woman, aged 48 years, in whom he discovered erysipelas in the larynx. The disease began with fever and prostration, pain on swallowing and difficulty in breathing. On the following day, the larynx showed pains on pressure externally and a very marked redness and swelling of the right aryteno-epiglottic fold, together with paresis of the right vocal cord. The pain increased rapidly, swallowing became impossible, and speech difficult. On the following day there was a marked swelling and redness of the entire epiglottis. The temperature was moderate and the pulse slightly accelerated. During the next few days the larynx gradually assumed its normal appearance, but the patient became delirious, with hallucinations of sight and hearing, which gradually disappeared. During one of the examinations, at the height of the disease, the larynx showed light grayish false-membrane which quickly disappeared, leaving a superficial ulcer. The rapidity and intensity of the local process and the character of the general symptoms led the author to the diagnosis of primary erysipelas of the larynx.

2. Methods of Dealing with Accidental Incisions in the Ureter During Operations.—Onoufrovitch concludes a study on this subject in the following manner: In cases of accidental wounds of the ureter during operations, extirpation of the kidney is to be regarded as the last resort. The ligation of the central end of the severed ureter is

dangerous, inasmuch as the opposite kidney has a tendency to become the seat of nephritis. A less risky and more rational method than the two others just mentioned, is the suturing of the central end of the cut ureter, whenever possible, into the lower portion of the abdominal wound, although it is true that this procedure is only palliative. The suturing of the central end of the severed ureter into the intestine is a dangerous method, in view of the probability of infection from the gut. The method to be preferred above all others in all cases in which it can be adopted is the suturing of the central end of the severed ureter into the bladder. For this purpose absorbable suture material should be employed, and a permanent catheter should be left during the first two days, both in the ureter and in the bladder. The ideal method, is the restoration of the severed ureter by anastomosis. It must not be forgotten that the considerable elasticity of the ureter enables the surgeon to apply this method even in cases in which a considerable portion of the ureter has been resected. The best methods of joining the ureters are those of Gubarieff, and of Weller Van Hook.

3. Antistreptococcus Serum in Erysipelas and in Puerperal Fever.—Ravitch advocates the employment of the antistreptococcus serum in the conditions named in the title, although his experience was limited to four cases, two of erysipelas and two of puerperal fever. He admits that the published data concerning the action of this serum in this condition do not admit of a definite conclusion concerning the therapeutic value of it in erysipelas and in puerperal fever. Thus, for example, such authorities as Lenhartz and Senn deny its value in erysipelas. Favorable reports are more numerous as regards its action in puerperal fever. The present author records very satisfactory results in the few cases which he relates. In none of the patients were there any unpleasant consequences observed after the injections. He strongly urges that this serum be given a further trial in the treatment of these septic conditions.

June 28, 1903

1. Report on 292 Lithotomies (*To be continued*).
By I. KH. DZIRNE.
2. A Case of Congenital Atrophy of the Pectoralis Major on the Right Side. Absence of the Mammary Gland (*To be concluded*).
By D. FEILINGER.
3. The Treatment of Infected Wounds by Dusting with a Spray of a Soda Solution and Sodium Benzoate,
By A. A. TSBATAEFF

3. A Spray for Infected Wounds.—Tsbataeff recommends the treatment of infected wounds by means of a spray of sodium benzoate solution. The method suggested itself to him as the result of the excellent healing obtained with compresses containing soda. The open infected wound was usually thoroughly cleaned with boric acid or mercury bichloride, and after dusting with some antiseptic powder a compress of sterilized gauze, moistened in a five per cent. solution of soda, was applied. Over this, a layer of rubber tissue and some cotton were placed to complete the dressing. If there was

an unopened abscess, it was opened, its cavity cleaned, and a drain of gauze soaked in the five per cent. soda solution introduced, the compress being laid over the drain. If the carbuncle was just developing, three or four long incisions through the entire area of redness were made, and the same treatment used. In this manner, in a number of cases the boils were aborted. In another series of cases the wound was first sprayed with a steam atomizer containing a one and a half per cent. solution of sodium benzoate. The author found that excellent results followed this treatment, especially when combined with compresses of soda.

AMERICAN MEDICINE

October 17, 1903.

1. One Year's Work in Appendicitis,
By JOHN B. DEEVER.
2. On the Influence of Potassium Sodium Tartrate Upon the Circulation (*Illustrated*),
By FELIX KLEEGER.
3. The Interrelations of Diabetes and Other Constitutional States,
By GEORGE F. BUTLER.
4. Cardiac Complications of Influenza,
By E. G. WOOD.
5. Special Aids to the Early Recognition of Pulmonary Tuberculosis,
By W. L. DUNN.
6. Antistreptococcic Serum in the Treatment of Inflammatory Rheumatism and Other Diseases, with Report of Cases,
By G. H. SHERMAN.
7. Relation of the Medical Profession to Public Education,
By L. K. BAKER.

1. Appendicitis.—Deaver's one year's work in appendicitis consisted in performing 566 operations for this condition. He gives a brief analysis of his results and of the post mortem findings in a number of the cases when death occurred. Appendicitis is always and solely the result of infection. The term "catarrhal appendicitis" is responsible for many deaths. He concludes his paper "with the tiresome, but necessary statement, that an early operation, preferably in the stage of appendicular colic, is the only rational procedure, and is the only treatment which will reduce the mortality in acute appendicitis to insignificant figures." No patient should be allowed to have a second attack of appendicitis, however mild the first. Two tables give the results of the operations. The total mortality was 5.3 per cent. In a total of 173 chronic cases there was not a death. In 367 acute and chronic, but not abscess cases or general peritonitis cases, the mortality was 0.8 per cent. The 16 general peritonitis cases and the 183 abscess cases furnished together 27 deaths.

3. Diabetes and Other Constitutional States.—Butler asserts that clinical study demonstrates beyond doubt that most cases of diabetes are at first expressions of nutritional and assimilational instability. In consequence of the overstrain on the liver, adrenals, pancreas, spleen, and kidneys, what at first might be merely biochemical changes in these organs, become permanent pathological lesions, continuing constantly in excessive sugar manufacture without proper oxidation or elimination.

4. Cardiac Complications of Influenza.—Wood's observation and study lead him to the

conclusion that influenza is a potent, and by no means an uncommon, factor in the production of serious cardiac disease. Degenerative changes in the heart wall are probably present to some extent in many cases of influenza, and in debilitated subjects, or in men past middle life whose cardiac muscles may be badly nourished, owing to changes in the coronary arteries, these changes may rapidly lead to grave symptoms. In consideration of the dangers of cardiac complications, the routine treatment of the disease with such drugs as phenacetin, acetanilid, etc., cannot be too strongly condemned. Certainly in patients past middle life the use of such drugs must be considered dangerous.

5. Special Aids in the Early Recognition of Pulmonary Tuberculosis.—Dunn concludes his paper as follows: (1) The full appreciation of the value of percussion and auscultation findings and of symptoms is dependent upon the recognition of the limitations of the significance of their presence or absence. (2) Deductions from temperature may be made from only frequent, regular observations. (3) An auscultation chart made while listening to the sounds is an essential aid to accuracy of both observation and record. (4) Negative sputum findings are never sufficient ground for negative diagnosis. (5) Blood examinations throw no light upon diagnosis of tuberculosis in its incipency, except in excluding those conditions in which the blood findings are characteristic. (6) Significance and reliability of agglutination are not yet fully established. (7) The tuberculin test is a safe, reliable, practical, and justifiable diagnostic resource in those cases in which its use is indicated; that is, in those cases of suspected early tuberculosis in which all other means have failed to clear up the diagnosis. When a positive diagnosis can be made without the tuberculin test, its use is to be condemned as a meddlesome procedure.

6. Antistreptococcus Serum.—Sherman reports his results with antistreptococcus serum in the treatment of various conditions, notably rheumatism (nine cases), and erysipelas (two cases). The results claimed by the author in the cases of inflammatory rheumatism are strikingly brilliant. His results are much better than those obtained by other observers working along similar lines.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

October 17, 1903.

1. Gastric Ulcer; Clinical, Pathological, and Surgical Phases, By A. H. CORDIER.
2. Hygiene of Young Girls, By J. H. CARSTENS.
3. Pelvic Diseases in Young Girls, By FLORUS F. LAWRENCE.
4. Skin Grafting for the Restoration of the Eyelids. Report of Cases, By OSCAR DODD.
5. Traumatic Lesions of the Ocular Annexa; with Report of a Case of Contused Wound of the Eyebrow, Resulting in Complete Monocular Blindness Unaccompanied by Ophthalmoscopic Changes, By ELLET O. SISSON.
7. The Production and Nature of Streptococcolysin, By GUSTAV F. REUDIGER.
8. The Purification of Water Supplies by Slow Sand Filtration (Continued).

1. Gastric Ulcer.—Cordier recommends that cases of gastric ulcer that have resisted medical treatment, be subjected to operation. Excision of the ulcer, which at first sight would appear the ideal method of treating such cases, is attended with a very high mortality. A gastroenterostomy fulfils or meets most of the indications in such cases, and the mortality is very low. It is, therefore, the operation of choice. The author, contrary to what seems to be the practice of surgeons with the largest experience, selects for the site of the anastomosis the most dependent part of the stomach.

3. Pelvic Diseases in Young Girls.—Lawrence draws the following conclusions: (1) All cases, whether in young girls or in older women, in which pain, menstrual, intermenstrual, or premenstrual is a prominent symptom, should be subjected to careful and thorough examination to determine its cause. (2) No leucorrhœa should be permitted to pass unnoticed or treated by such "slipshod" methods as ordering a douche, giving medicine, etc., without first ascertaining its cause. In all cases where discharge is purulent a microscopical examination should be made to determine presence or absence of gonococci, tubercle bacilli or other important septic organisms. (3) All cases of excessive flowing, intermenstrual hæmorrhage or prolonged menstruation, should be thoroughly examined. (4) In all cases where amenorrhœa exists every effort should be made to find the cause. (5) In young girls subjects of neurotic symptoms which develop at puberty or occur with each menstrual epoch, a careful and thorough examination of the pelvis will often reveal the cause. (6) If menstrual pain, irregularity, leucorrhœa, and neurotic disturbances follow the exanthemata, a pelvic examination is imperatively demanded. (7) In all virgins the rectobimanual examination should be used—the vaginal touch only being used when absolutely necessary.

4. Skin Grafting.—Dood discusses the best ways of making skin grafts for repairs about the eyes. A number of cases are reported and are illustrated by reproductions from photographs. The author's experience leads him to formulate these conclusions: (1) For the upper lid, Thiersch grafts should always be used, unless the whole thickness of the lid is destroyed. (2) In forming the lower lid, if there is adjacent skin available it should be used to form the lid and the resulting defect filled in with Thiersch grafts. When there is dense cicatricial tissue for the floor of the graft a pedicle graft is the only one which will be found satisfactory. (3) Should pedicle grafts not be available and the underlying tissue have proper vascularity, then either Wolfe or Thiersch grafts may be used.

5. Traumatic Lesions of the Ocular Annexa.—Sisson asserts that a study of the subject shows (1) the necessity of a guarded prognosis in all such cases, and (2) the value of asepsis and antiseptics in the treatment of all wounds in the region of the eye.

7. Streptococcolysin.—Reudiger concludes: (1) Virulent streptococci, when grown in heated

rabbit's serum (and other sera), produces a hæmolyisin which destroys the red corpuscles of many animals. (2) This hæmolyisin is an organic substance which is destroyed by heating to 70° C. for two hours. (3) It gradually deteriorates if kept at room temperature, but may be preserved in the ice chest for a much longer time. It deteriorates rapidly in the incubator; is destroyed by peptic digestion; and is non-dialyzable. It is composed of a haptophore and a toxophore group, which are firmly bound together. The haptophore group may be neutralized with chicken serum and the toxophore group is destroyed by zinc chloride. (4) The sera of some animals contain antistreptococcolysin. (5) A weak solution of formaldehyde has antihæmolytic properties. (6) The filtered cultures of a virulent streptococcus, in heated serum, are toxic for rabbits.

LANCET.

October 10, 1903.

1. Syringal Hæmorrhage Into the Spinal Cord,
By SIR W. GOWERS.
2. The Relationship of the Military Medical Service to the Civil Profession,
By V. W. LOW.
3. A Case of Diabetic Intraocular Lipæmia, in Which the Blood Was Examined During Life,
By W. H. WHITE.
4. On the Protective Effect Achieved by Antityphoid Inoculation as Exhibited in Two Further Statistical Records,
By A. E. WRIGHT.
5. Some Remarks on Fifty Cases of Bilharzia Disease, with Special Reference to the Characters of the White Corpuscles Found in the Blood and Urine,
By S. R. DOUGLAS, and F. W. HARDY.
6. Some Investigations on the Urine of Children,
By A. W. FULLER.
7. Some Observations and Comparisons on the Dietetic and Drug Treatment in Chronic Pulmonary Tuberculosis,
By D. L. SMITH.

1. **Syringal Hæmorrhage.**—Gowers begins his article by describing the cavities in the spinal cord in syringomyelia, and their mode of formation. They may be due to two causes: (a) imperfect closure of the embryonal medial fissure; and (b) persistence of an enclosed portion of embryonal tissue with subsequent breaking down. These latter cavities are in the posterior columns adjacent to the posterior horn. They are bordered by undeveloped embryonal tissue, which may be so considerable as to constitute gliomatosis. These developmental defects—residual undeveloped embryonal tissue—may extend up from the cord of the mesencephalon, though seldom as actual cavities. Glioma of the pons is probably of this nature. The symptoms of cavity formation in the cord are well known—pain, analgesia without anæsthesia, and muscular wasting when the anterior gray substance is damaged. The symptoms vary widely. Signs of defective closure of the vertebra—"spina bifida occulta"—in the shape of scars, furrows, etc., are of great diagnostic value. The existence of these cavities occasionally induces the occurrence of one of the greatest lesions of the spinal cord—hæmorrhage—and determines special symptoms. The onset, while rapid, is not so sudden as that of hæmorrhage usually is, and the effect on the functions

of the cord may be less absolute and consistent than that due to a simple extravasation. Secondary myelitis may increase the primary effects. Hæmorrhage may be due to breaking down of the vascular gliomatous growth. The author reports two cases in which the symptoms were thought to be due to hæmorrhage into cavities. The diagnosis must usually be inferred, for such hæmorrhages are less fatal than those into the substance of the cord. Sensory loss was a prominent symptom in both cases. In neither was there much pain. In one the right arm was completely paralyzed without involvement of the leg on the same side. The diagnosis was assisted by the presence of a congenital defect of ocular movement due to structural defect of the pons. In the second case there was paraplegia following a slight shock, with complete analgesia and anæsthesia. The symptoms in both cases were very persistent—in one they had lasted twenty years. Attention is called to the extreme importance of rest, perfect and prolonged, in every case of spinal palsy. Especially is this necessary when the palsy is due to hæmorrhage. Everything should be done to decrease the pressure in the spinal cord. If possible the spine should not be the lowest part of the body. Whenever it can be endured the prone position of the body should be maintained, and if this is impossible, the patient should be kept on the side.

3. **Intraocular Lipæmia.**—White reports the case of a man, aged twenty-six years, suffering from diabetes. On examination of the eyes the retinal arteries and veins appeared to contain blood of a pale salmon color. On a rigid diabetic diet and large doses of sodium bicarbonate, his condition gradually improved, and within two months the appearance of the retinal vessels was normal. A specimen of blood taken shortly after the case came under observation, showed it to be very milky and the serum after clotting was milky. The microscope showed many fine granules, but no globules nor anything that stained with osmic acid. The granular substance appears to be a proteid precipitated out by the presence of some fatty substance. This latter is not true fat, but apparently an ester of cholesterin with one of the higher fatty acids.

4. **Antityphoid Inoculation.**—(See abstract of *British Medical Journal* of October 10th, in this number of the *Journal*).

5. **Bilharzia Disease.**—Douglas and Hardy have studied the blood and urine in fifty cases of bilharzia disease. Their conclusions are as follows: 1. *Histological characters of the blood.*—(a) The percentage of the coarse grained eosinophile leucocytes is, with very few exceptions, much above the average percentage found in normal human blood. (b) This increase goes hand in hand with a proportional diminution in the percentage of the multinuclear leucocytes. (c) Less frequent is an increase of the large uninuclear leucocytes, and where this is present it is associated with a diminution of the lymphocytes. 2. *Histological characters of the white blood corpuscles in the urinary sediment.*—A very large propor-

tion of the leucocytes found in the urinary sediment are coarse grained eosinophiles, the remainder being almost all multinucleated, lymphocytes and large uninucleated leucocytes being uncommon. 3. *Variations in the number of ova in the urine.*—The ova vary in number greatly from day to day; large quantities of blood and other cells are often present when but few ova can be found.

6. **Urine of Children.**—Fuller has estimated the average amount of urine passed in twenty-four hours by healthy children from the ages of six months up to twelve years; also the total urea and the purin bodies. The results are recorded in a table, together with the body weight. He finds that while the amount of urine increases with the growth of the body, the amount per kilogramme of body weight does not increase. The amount of urea per kilogramme increases about the second year, due to the change in diet; afterwards it remains fairly constant. The amount of urinary purins per kilogramme excreted bears no relation whatever to the age or sex of the individual.

7. **Pulmonary Tuberculosis.**—Smith reports the results of his observations and comparisons of the dietetic and drug treatment of pulmonary tuberculosis: Series of cases were treated along different medicinal lines—creosote, cod liver oil, and malt; guaiacol and cod liver oil; arsenic; nuxvomica, and bitter tonics; and urea. He concludes that no drug or drugs have any specific curative action. The diet is of as paramount importance as any of the drugs used. In tuberculosis there is wasting of subcutaneous fat, but the main feature is wasting of the nitrogenous elements of the muscles. A meat diet supplies a direct physiological want. With an abundant and mixed diet cod liver oil is not necessary. Mere acquisition of fat is not everything; a gain in weight frequently occurs without improvement in the pulmonary condition. One can safely say that the amelioration of symptoms is in the inverse ratio to the amplitude or excursion of the temperature, and the course of treatment adopted should be to control the daily range of temperature.

BRITISH MEDICAL JOURNAL.

October 10, 1903.

1. The Medical Curriculum, By E. A. SCHAFER.
2. The Protective Effect Achieved by Antityphoid Inoculation as Exhibited in Two New Statistical Reports, By A. E. WRIGHT.

(Seventy-first Annual Meeting of the British Medical Association.)

Section of Surgery.

3. Discussion of Practical Experience Regarding the Most Satisfactory Methods of Performing Intraabdominal Anastomosis, By G. S. MAKINS, E. S. BISHOP, and Others.
4. Discussion on the Treatment of Advanced Tuberculous Disease of the Knee Joint, By G. A. WRIGHT, W. S. HASLAM, and Others.
5. A New Route for Posterior Gastrojejunostomy, By J. B. HALL.
6. One Danger of Gastroenterostomy, By W. McA. ECCLES.

7. Two Cases of Ascites Secondary to Alcoholic Hepatitis Treated Successfully by Operation, By S. WHITE.
8. Notes of a Case of Operative Treatment for Cirrhosis of the Liver, By W. SHEEN.
9. Separation of the Acetabular Epiphysis of the Femur, By H. B. ROBINSON.
10. Ultimate Results in a Series of Eighty-eight Cases of Fracture of the Tibia and Fibula, By R. W. MURRAY.

2. **Antityphoid Inoculation.**—Wright publishes two new statistical reports from the British war office with reference to the results of antityphoid inoculation in the army in India and South Africa. Of 55,955 uninoculated soldiers in India 744 contracted typhoid and 199 died: an incidence rate of 1.33 and a death rate of 0.36. Of 4,883 inoculated against the disease, only 32 contracted it, with 3 deaths:—an incident rate of 0.66 and a death rate of 0.06, the former being decreased by one-half, and the latter by five-sixths. Of 10,981 inoculated soldiers in South Africa, 257 contracted the disease—an incidence rate of 2.3. Of 2,535 inoculated only 26 had typhoid—an incidence rate of 1; and a diminution of more than one half.

3. **Intestinal Anastomosis.**—Makins states that axial, or end-to-end, intestinal anastomosis is indicated in any part of the small intestine, when there is no inconvenient disparity in the lumen of the two ends of the bowel, when the lumen of each is of sufficient size, and when the bowel wall is in good condition. Theoretically it gives an ideal physiological and cosmetic result, and only one joint has to be made, thus saving time and diminishing the risk of leakage. Its disadvantages are poor nutrition around the line of suture, and liability to leakage, and to the formation of a diaphragm or permanent stricture. Lateral anastomosis, when practicable, is the more suitable operation in the large intestine, especially for the removal of a growth. It is Nature's method, and its advantages are that the communication may be made as large as is desired and there is no danger of stricture, the chances of leakage are less, and it permits of the reestablishment of the lumen of the gut at some distance from the seat of the primary operation. Its greatest disadvantage is the additional time in making the three lines of suture. Leakage is most apt to occur at the blind ends of the gut. Lateral implantation offers all the advantages of lateral anastomosis, but it is mostly confined to cases where there is marked disparity in size of the two ends of gut (ileocolostomy).

Two tiers of suture are desirable in each line. For the inner tier a purely mucous suture is the best: the outer may be either serous (Lembert) or seromuscular (Wysler). Two methods of guarding against the formation of a diaphragm are (1) the removal of mucous membrane; and (2) oblique section of the bowel wall. The free ends of the gut in lateral anastomosis may be closed by: (1) double suture; (2) ligature and purse-string suture; and (3) invagination and simple suture on the mucous aspect. Omental grafts may be used to aid in secure union or as a curtain to prevent infection. The methods of suture

aided by mechanical support are as follows: (a) the use of forceps merely during the actual insertion of the stitches; (b) decalcified bone bobbins; and (c) Murphy's button. The advantages of Murphy's button are: (1) rapidity; (2) applicability in difficult regions; (3) the avoidance of any encroachment on the lumen of the gut; and (4) applicability to bowel in which sutures will not hold. Its chief disadvantage is the introduction of a non-absorbable body into the intestinal tract. Failure with it is due to faulty application or a bad condition of the bowel wall. It should not be used in anterior gastroenterostomy, because of the tendency to retention of the button. In the large gut, lateral anastomosis gives better results.

Bishop sums up his article as follows: (1) The terms "fundal point" and "fundal line" should be used in describing that point of the intestine opposite to the mesenteric insertion. (2) Decalcified bone bobbins are advisable in operations for union in the gastric region, as they protect the line of suture from the digestive and destructive action of the liquid intestinal contents. (3) Their use is absolutely contraindicated in the large intestine because of the solidity of the intestinal contents. (4) That mode of suture is to be preferred which gives the most perfect security against leakage, exposes itself the least, and which removes the inevitable diaphragm formed by the turning in of the bowel ends. (5) The use of forceps or the preliminary crushing of the intestine is of very doubtful value. (6) Where a neoplasm has to be removed from the large intestine, a previous colotomy above the tumor increases the chances of success.

4. Tuberculosis of the Knee.—Wright and Haslam's paper is based upon the replies received by them to a sheet of inquiries as to the treatment of advanced tuberculous disease of the knee joint, which they sent to 240 surgeons. Answers were received from 75. The views of the majority are as follows: (1) The main indications for operation are progressive disease, especially if suppuration or commencing dislocation is present. (2) Erasion is preferred in young patients with early disease; excision in adults. (3) (a) In erasion the incision to be preferred is the horseshoe incision with division of the ligament or of the patella. (b) The patella should always be preserved. (c) The crucial ligaments should be preserved. (d) Local foci of disease in the bone should be scooped out and an antiseptic (iodoform, etc.) applied. (4) The balance of opinion is in favor of the use of the tourniquet, removing it before dressing the wound. (5) Opinion is fairly divided as to the advantages and disadvantages of drainage. (6) Antiseptic dressings are most used. (7) Most surgeons use a back splint, kept on from five days to five years. (8) Flexion is prevented by prolonged fixation with splints. (9) Where flexion has occurred forcible straightening should be used if the union is fibrous, removal of a wedge of bone if osseous. (10) No attempt is made to obtain a mobile joint after erasion. (11) It is uncertain whether shortening is greater after excision or erasion. (12) Excision is limited by most to adult cases. (13)

In the majority of cases some method of fixation of the ends of the bones is used. (14) The patella is usually removed in excision. (15) The origin of the disease is thought by most to be synovial.

6. Gastrojejunostomy.—Hall reports twelve cases of posterior gastrojejunostomy performed by his new route. In this "supracolic" operation the posterior wall of the stomach is reached through an opening made in the gastocolic omentum instead of the transverse mesocolon. In every one of his twelve cases recovery from the operation was rapid and uneventful, the absence of postoperative vomiting being a marked feature.

Hall reports a case of gastroenterostomy in which there was some difficulty in turning up the stomach out of the way due to adhesions. It did well for eleven days when there was profuse hæmatemesis and signs of peritonitis, ending in death. At the autopsy it was found that the stretching of the parts at the operation had caused a fresh extension of a partially healed duodenal ulcer, with resulting hæmorrhage and perforation; so that the utmost gentleness should be used in all cases where there are adhesions in the region of the pylorus.

7 and 8. Operative Treatment of Ascites.—White reports two cases of ascites secondary to alcoholic hepatitis treated successfully by operation. He sums up the subject as follows: (1) Cirrhosis of the liver with ascites is not always a hopeless disease. (2) The ascites can be permanently cured in many cases by operation. (3) The operation of epiploorrhaphy may not only cure the ascites, but also lead to partial regeneration of the damaged liver cells. (4) Tapping alone has occasionally cured ascites and should always be tried. (5) Operation is formidable and should only be undertaken in selected cases. (6) In some cases the condition is hopeless when ascites appears; in others only the connective tissue has been seriously damaged and removal of the ascites may lead to recovery.

Sheen also reports a successful case of operation for cirrhotic ascites. He attributes the good results partly to the continuous drainage and the firm strapping.

10. Fracture of the Tibia and Fibula.—Murray has traced the subsequent history of 88 cases of fracture of the tibia and fibula. In all cases of transverse fracture the utility of the limb was completely restored and the average length of time off work was from three months and a half to four months. In oblique fracture, the utility of the limb was often seriously and permanently impaired. The average time off work was about seven months. The author recommends that, in cases of simple fracture of the tibia and fibula, the foot piece of the back splint should be inclined outwards with an angle of 70 degrees and with the same inclination forward. Accurate apposition of the ends of the bones, while desirable, is not essential for the complete restoration of the utility of the limb. In Pott's fracture the prognosis is more serious than after a simple fracture of the tibia and fibula. The time off work averages from four to five months.

Letter to the Editor.

"NOTHING NEW UNDER THE SUN." THE RED LIGHT TREATMENT OF SMALLPOX.

PHILADELPHIA, PA., October 17, 1903.

To the Editor,

Sir: During the summer I re-read Jeaffreson's *A Book About Doctors* and on page 10, volume ii, found the following:

"Edward II.'s (1284-1327) physician, John of Gaddesden, informs us, 'When the son of the renowned King of England lay sick of the smallpox, I took care that everything round the bed should be of a red colour, which succeeded so completely that the Prince was restored to perfect health without a vestige of a pustule remaining.' Even as late as 1765 this was put in practice to the Emperor Francis I."

This would indicate that the red light treatment of smallpox was in vogue for a period of about four hundred years; thus Finsen's supposed discovery, whatever its merits, at least has not that of novelty.

CHARLES P. NOBLE.

Proceedings of Societies.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

SECOND SEMI-ANNUAL MEETING, HELD IN NEW
YORK, OCTOBER 13TH, AND 14TH.

(Concluded from p. 824.)

Wednesday, October 14th:

The New York State Hospital for Incipient Tuberculosis.—Dr. WILLIS G. MACDONALD, of Albany, exhibited the plans of this hospital and described them. He said that the usual hospital construction had been departed from, in order to obtain the advantages of the cottage plan and at the same time secure proper protection against the rigors of the Adirondack climate. That care had been taken to secure that very important element for the consumptive, sunshine, was proved by the fact that on the shortest day of the year the sun came upon the porch at 8.45 a. m. and did not leave it until 4.45 p. m. The hospital was 1,639 feet above sea level. It was intended to keep the patients in single rooms under observation until they were thought to be sufficiently improved to go into the small dormitories. There was ample accommodation in the hospital building for 108 patients, but as the convalescent patients were placed in tents or barracks, it was expected that the institution could take care of between 160 and 180 patients. All this had been achieved at a cost of \$212,000, or about one half the cost of the Adirondack Sanitarium.

Technique of Operations on the Tongue.—Dr. R. H. M. DAWBARN read this paper. He urged ligation of the external carotid as the first step in the operation, and the placing of the patient during the operation in such a posture as would prevent fluids from the mouth from pouring into

the larynx, trachea, or bronchi. At first, the patient should be sustained by rectal alimentation. It was better to discard gauze packing in the mouth, and instead to rub aristol into all raw surfaces.

Dr. A. T. BRISTOW, of Brooklyn, disagreed with the author regarding the preliminary ligation of the external carotid. He said that he considered the preparatory treatment so important that he usually devoted a week to this. It consisted in having all carious teeth extracted, and in scrubbing the remaining teeth at short intervals with some simple antiseptic lotion. Such preparatory treatment was an excellent prophylactic against inspiration pneumonia.

Dr. A. A. VAN DER VEER, of Albany, objected to the author's postural treatment, and emphasized the importance of keeping the patient confined in bed as short a time as possible.

Dr. WILLIS G. MACDONALD, of Albany, also spoke against the postural method, on the ground that it had no good anatomical basis and, moreover, was totally opposed to his own experience. As for confinement in bed, he expected his patients to be out of bed the day after operation.

Potable Waters.—Dr. E. S. WILLARD, of Watertown, read this paper. He said that a chemical examination of water served to determine the nature and quantity of mineral and nitrogenous matter contained in it. The biological examination determined the number and kind of organisms in the water, and was the more important method of examination in the case of water to be used for domestic purposes. The water from domestic cisterns might, or might not be wholesome, depending upon the care taken of the cistern and the materials of which it was constructed. If metal was used, both the cistern and pipe should be liberally coated with asphalt and paint; if cement was used the only objection was that it increased to some extent the hardness of the water. The speaker then dwelt upon the domestic distillation of water in its sanitary aspects, and showed that the method was not only cheap, but might, at times, prove an important factor in preserving the health of the community. The two principal forms of water purification were the English system, or slow sand filtration, and the American system, or rapid mechanical filtration. In connection with the efficient working of the latter, it appeared to be necessary to use some coagulant, such as alum, in order that the suspended matter might be entangled and deposited on the surface of the sand. However, this need not be objectionable, as it was perfectly feasible so to proportion the quantity of the precipitant to the work to be done as to leave no deleterious agent in the filtered water.

Dr. F. C. CURTIS, of Albany, spoke at length of the great lack of attention to the purity of our municipal water supplies, and compared the conditions found in this country with those in Europe. Thus, taking the death rate as a general index of the degree of purity of the water supply, he pointed out that the rate in New York city was 20 to 25, as against 10 or 15 in European cities. He did not favor chemical filtration, for it lacked an important element, i. e., the exposure of the

pathogenic organisms in the water to the destructive action of the nitrifying bacteria. As an example of what could be done for the health of a community by proper purification of the water supply, he cited the case of the city of Albany. There, up to 1899, the death rate had ranged between 50 and 120. Immediately upon the installation of the filtration plant this rate began to decrease, and since that time had not risen above 15.

Conservation in Pelvic Infection.—Dr. JOHN O. POLAK, of Brooklyn, read this paper, which was based upon the results obtained by him in 79 cases of acute infection. He was strongly in favor of treating such cases by a modification of Pryor's iodine treatment.

Dosage. A Plea for Proper Medication.—Dr. A. JACOB, of New York, presented this paper as the first one of a series. We hope to present this paper to our readers shortly.

The Dispensary Treatment of Tuberculosis.—Dr. J. W. BRANNAN, of New York, described in this paper a system of managing these cases which was about to be inaugurated in the city dispensaries. In brief, it embraced the utilization of the dispensary for the instruction of tuberculous persons, the employment of a nurse to visit them at their homes and see that these instructions were heeded, and measures for securing adequate nourishment. This plan had already yielded excellent results elsewhere, but it was absolutely essential that the attending physicians should be imbued with an enthusiasm for this special work which was rarely found in the dispensary physician. Fortunately, the services of Dr. James A. Miller had been secured, and additional aid would be derived from the fact that hospital accommodations had been provided for those patients whose disease was, for the time being, so active as to preclude their being treated as outpatients.

Dr. JAMES ALEXANDER MILLER, of New York, described how this system had worked in another dispensary. He said that paper sputum pouches were furnished the patients, their weight was noted at the weekly visit to the dispensary, and once each month each patient was subjected to an exhaustive physical examination. Of 160 patients so treated in dispensary practice during the past six months, no less than 49 were at present engaged in active occupations. The expense of this system had been found to be so moderate that it should not deter other dispensaries from employing it.

The Causes and Prevention of Infant Mortality in Nurseries and Asylums.—Dr. E. H. BARTLEY, of Brooklyn, was the author of this paper. After considering the more common causes of infant mortality, he spoke of the advantages of having small wards and a sufficient number of care takers. In the management of diarrhoeal disease, he said, it was of great importance that the children should be isolated, the napkins disinfected, and flies either excluded or destroyed by fumigation.

A Modified Allis Ether Inhaler.—Dr. A. F. ERDMANN, of Brooklyn, exhibited an Allis inhaler that he had modified in a simple way with the

object of facilitating the addition of ether from time to time while the patient was in the Sims position. The modification consists in cutting a broad slot transversely in the side of the rubber cover, and in using, as required, a metal or rubber cap for the inhaler.

SYMPOSIUM ON TYPHOID FEVER.

Wednesday Afternoon:

A Logical Definition of Typhoid Fever.—Dr. H. A. FAIRBAIRN, of Brooklyn, presented in the opening paper certain theoretical considerations concerning the nature of this disease, emphasizing especially the liability to error from studying only the clinical side.

Anomalies and Difficulties of Diagnosis in Typhoid Fever.—Dr. HENRY L. ELSNER, of Syracuse, presented this paper. He called attention to the wide variations in the prodromal period. Thus, at times this stage might last for several weeks, and even be afebrile; on the other hand, it sometimes covered only three or four days, and was quickly followed by severe symptoms. It was this latter type that was so commonly encountered in the recent Ithaca epidemic. The speaker said that he had been studying the arterial pressure in typhoid, and had found it to be not over 130 or 140 mm. in the first week in adults, and in children under six years, not over 100 mm. The pressure was rarely high, except in the presence of some complication. In his series of 110 cases diarrhoea was present in only 84. The eruption was noted in all but 8 cases, but in some only a few spots could be found, and these in atypical situations. If chilly sensations were present with the fever it was highly probable that some other infection than typhoid was present. Malignant endocarditis sometimes proved a stumbling block to the diagnostician, but it should be remembered that hæmorrhage was not common in malignant endocarditis, whereas chills were frequently present in the first stage. Hurried respiration, associated with leucocytosis, argued against typhoid, whether in children or adults. Ehrlich's reaction was uncertain, and while it afforded grounds for suspecting typhoid infection it could in no sense be classed with an exact test, such as the Widal reaction.

The Management and Treatment of Typhoid Fever.—Dr. EGBERT LE FEVRE, of New York, discussed this part of the subject, giving special attention to the dietetic management. He pointed out that before milk could be digested normally it must be coagulated in the stomach into masses of varying size and consistency, and that the disintegration of these coagula took place with difficulty in the typhoid patient. For this reason the stools of such a patient while on an exclusive milk diet contained more undigested and irritating matter than when the diet consisted of a mixed or semi-liquid representing the same quantities of proteids, carbohydrates and fats. An important fact, and one quite commonly overlooked, was that when in the course of other diseases it was thought best to place the patient on a milk diet, care was taken to accustom the digestive apparatus gradually to that diet, whereas a full milk diet was adopted for the typhoid patient so

soon as the diagnosis was made, without any preparation for this radical departure from the ordinary diet of health. In view of these facts, Dr. Le Fevre preferred to make use of a dietary comprising coffee, cocoa, tea, kumyss, junket, and similar foods, always observing, however, the rule that no article of food should be given to the typhoid patient during the active stage of the disease until it had first been passed through a fine wire sieve. The addition of egg to milk increased the difficulty of digesting the latter, but in the afebrile stage it was well to add the yolk of an egg to soup or bouillon. He had found gelatin very useful in controlling intestinal hæmorrhage. For this purpose, he gave from two to four ounces of a mixture composed of half to one ounce of commercial gelatin dissolved in water, and repeated this dose at short intervals. The use of a daily enema should not be neglected, and when purgatives were indicated, the choice should be between such salines as sodium phosphate and magnesium sulphate, and small doses of castor oil. The routine use of baths whenever the temperature rose to 102 or 103° F. was now rapidly falling into disfavor, and it was rare that more than three or four baths would be required in a day. He favored the use of small doses of acetanilid or phenacetin in certain stages of the disease on the ground that when so given these remedies did not depress the heart, but did quiet the nervous system, reduce the temperature, diminish body waste and, in general, improve the patient's well-being. For those who desired to make use of quinine as "the fever food," he would recommend giving this drug in an initial dose of 15 grains, following this by five grains every six hours. He protested against the routine use, or rather abuse, of strychnine; it should be reserved for the time when the infection appeared to be overpowering the nerve centre, and then should be administered in doses which would just meet the indications. Much had been said about the use of alcohol; without taking the time for argument, he desired to express the opinion that in typhoid fever alcohol was both a stimulant and a food.

The Ithaca Epidemic.—Dr. L. COVILLE, of Ithaca, read a paper on this subject, illustrating it by lantern views. He said that there were 1,300 cases of typhoid during the first six months of the epidemic, and that 80 more cases had occurred this summer as a result of the infection of a broken well. There had been 79 deaths. Those who drank exclusively of artesian water escaped infection, and it was worthy of note that plumbers working in infected houses and persons working in the sewers and at the city pumping station were equally fortunate. There were many remarkable things about this epidemic, not the least of which, perhaps, was the fact that the people had been warned for two years previously that the water was not fit to drink. For several years each autumn had seen several mild cases of typhoid develop, but, as a rule, they had not commonly given a positive Widal reaction. Suddenly last December, all this changed, and the new cases exhibited a virulent type and gave a positive Widal reaction. Almost all of the pa-

tients, both during the disease and afterward, presented a dull red throat such as is seen often in gouty individuals. Among other noteworthy features of the epidemic were the remarkable variations in the course of the disease, the relatively small number of relapses, the frequent presence of constipation throughout the illness, and the absence of infection of the milk supply. It was also worthy of note that many who had suffered the mild type of typhoid that had prevailed during the past two years again fell victims to the disease during the epidemic.

The Lessons of the Ithaca Epidemic.—Dr. GEORGE A. SOPER, of the State board of health, gave an address, with this as his theme. He said that not only was Six Mile Creek infected, but the sources of infection probably numbered a hundred or more. It was strange, indeed, that an intelligent community, its local health officers, and even the authorities of Cornell University, should have remained lethargic and inactive in the face of repeated warnings of the danger that menaced the city. Even after the outbreak of the disease in epidemic form a considerable time elapsed before any efficient steps were taken to check the progress of the disease. Many of the people persisted in drinking the city water, believing that it was safe; disinfectants were used in an ignorant or haphazard manner; untrained nurses spread the disease; many of the 1,300 privies were infected, and there was no system of notification whereby the local health officers could be kept informed as to the number and location of new cases as they developed. So far \$25,000 had been expended in suppressing the epidemic, about \$10,000 of this sum being used by the State board of health in laboratory work and in the compilation of statistics. Analyses were made of the water from nearly all of the wells, and 30 per cent. of these samples showed the water to be bad or positively dangerous. Perhaps the most important lesson of the epidemic was the crying need among the masses of the people for more light on the subject of both public and private hygiene.

The Lessons of the Ithaca Epidemic.—Dr. CYRUS W. FIELD, 2d, of New York, read this paper. He said that typhoid was disseminated chiefly in three ways, viz.: (1) By personal contamination; (2) by pollution of the water supply and, indirectly, of the milk supply, and (3) by means of household insects. It was definitely known that soiled clothing often remained a source of infection for a considerable time, and that the typhoid bacilli could retain their vitality for five months even in ice. It was common knowledge that the stools of typhoid patients should be carefully handled and thoroughly disinfected, but it was too often forgotten that the urine often contained the typhoid bacilli. Even physicians seemed to forget this, if one might judge from the carelessness displayed in examining typhoid urine.

Dr. J. L. HEFFRON, of Syracuse, opened the general discussion. He said that to-day every one of our public water supplies was infected. The only protection was the installation of a competent purification plant. Again, while attend-

ing to this obvious and highly important duty of protecting a community against pollution of its water supply, the local authorities should not be so unmindful of the rights of other communities as to allow their sewage to pass on unsterilized and so infect other water supplies. Referring to Dr. Le Fevre's paper, the speaker said that he had been delighted with that author's arraignment of the exclusive diet as a routine measure in typhoid fever. As an intestinal antiseptic he had never found any other remedy so efficient as acetozone, though it was not very palatable to most patients.

Dr. A. JACOBI emphasized what had been said about the infectiousness of the urine of typhoid patients by declaring that the typhoid bacilli sometimes persisted in the urine many weeks after they had disappeared from the stools. He protested vigorously against Dr. Le Fevre's advice to use acetanilid in small doses, asserting that this drug was a most dangerous anilin poison and was comparable to potassium chlorate in its destructive action on the hæmoglobin.

Dr. LE FEVRE replied that when given in doses of two or three grains he had never observed any bad result from acetanilid except in cases of idiosyncrasy. Moreover, he had at one time examined the blood of persons who were taking acetanilid, and had not been able to find evidence of the oft-repeated assertion that acetanilid normally produced a destruction of hæmoglobin.

NEW YORK STATE MEDICAL ASSOCIATION.

TWENTIETH ANNUAL MEETING, HELD AT NEW YORK, OCTOBER 19TH, 20TH, 21ST, AND 22ND.

(Continued from page 803.)

Thursday Morning, October 22nd.

The meeting having been called to order at 10.00 a.m., Dr. J. R. STURTEVANT, of Theresa, opened the programme with his paper on

Diphtheria in the Country: Its Diagnosis and Management. He spoke of the difficulties in the way of the rural practitioner. The disease was spread in one way by infected poultry which were subject to a membranous mouth disease. The open cesspools were another source. The country practitioner should always carry antitoxine with him. Disinfection could be always carried out.

Dr. J. J. WALSH, of New York, opening the discussion, said that workers in the sewers of large cities were not especially liable to specific diseases, but were subject to a non-specific sore throat, in which the diphtheria bacillus might, of course, become entangled. The real origin of bacilli was the great bacteriological mystery.

Dr. J. O. STRANAHAN, of Rome, said he found 1,500 units of antitoxine too small a dose. He has given 15,000 units before the membrane was affected.

Dr. ROCHESTER, of Buffalo, also believed in large doses promptly given; he had never lost a patient from diphtheria since using antitoxine.

Dr. ULRICH, of Chester, Penna., spoke of the epidemic in that State in 1859, when potassium

chlorate and iron perchloride were the remedies used; he still thought them valuable, especially where antitoxine was found to be too expensive.

Dr. ELPHEY, of New York, thought all cases of sore throat should be isolated at once.

Dr. FERGUSON, of Troy, used antitoxine as soon as it was procurable, and thought highly of it, although it had not saved cases from infective bronchitis.

Dr. ALBERT C. WAY, of Perry Centre, drew attention to the fact that the State laboratory provided antitoxine free in suitable cases.

A communication from the Mississippi Valley Medical Association was read at this point, embodying a resolution concerning Fourth of July tetanus. (The resolution appears in our issue for October 24th, p. 811.) The resolution was unanimously accepted.

Some Features of the Epileptic Attack.—This paper was read by Dr. B. ONUF, of Sonyea, who stated that the nature of the attack varied with the patient, and that, there being no absolutely characteristic symptom, we must familiarize ourselves with as many cases as possible. He had studied 800 patients at the Craig colony and had given special attention to the cry, the convulsions, the pupils, the tendon reflexes, and the state of consciousness. The cry was really a low, tremulous, groan, and when the ear was accustomed to it, was readily recognizable. The pupils were not always dilated, sometimes being contracted, and sometimes reacting to light and accommodation. The convulsions usually began with the classical aura, the face being pale, the eyes thrown upwards, the body rigid, the arms away from trunk, the arm flexed upon the upper arm and the fingers strongly contracted, but the legs extended. This stage lasted about twenty seconds; then there were violent and jerky movements of the face and body, the saliva collected, and the patient might suddenly project himself out of bed, so as to dislocate a joint, generally that of the shoulder. The picture, it would be seen, was not at all that given in the text-books, to which Dr. Onuf had seen almost as many exceptions as patients. Asymmetry of spasm was common. Consciousness might be established by observation or by the patient's recollection subsequently. Irritation of the skin with a pin or lighted match might be tried; vision and hearing should be tested. The nature of the reflex might vary from a simple, cutaneous one to a genuine cerebral reflex. Irritation of the conjunctiva would bring dawning consciousness, soon to be obliterated, however, if the stimulus was removed. Ankle clonus, or the knee jerk might be absent, normal, or exaggerated.

Dr. K. MACPHERSON spoke of a case of epilepsy that came under his care, in a woman who had been shot in the head; she had frequent convulsions soon after, then they disappeared for nearly a year. She then developed typical epileptic convulsions with the cry, etc. Dr. Macpherson was considering the advisability of trephining.

A Report of Twenty-five Prostatectomies. illustrated with a number of specimens in alcohol, and a series of diagrams was next presented by Dr. J. PARKER SYMS, of New York. These showed not only enlarged prostates, but the retractor invented by Dr. Syms for use in his operation. The

instrument itself was also exhibited; its improvement consisted essentially of a rubber bulb, which when inflated, served greatly to check hæmorrhage. Prostatic obstruction, if not operated upon, would invariably result fatally. In the series of twenty-five operations, there was but one fatal result. The operation should be done whenever catheter life had become established.

At this point the chairman announced that Dr. J. S. Billings, who was recently subjected to an operation, was progressing satisfactorily.

Dr. JOHN H. MUSSER, of Philadelphia, President-elect of the American Medical Association, was then introduced and warmly welcomed. He hoped to meet all present at Atlantic City next June.

The discussion on Dr. Syms's paper was then opened by Dr. GOODFELLOW, of San Francisco, who said that he had had seventy operations since 1891. Recently the mortality in these cases had greatly decreased. His operation was very similar to the regular median lithotomy; he used spinal cocainization. In one case, he found thirty-five ounces of residual urine; the bladder did not recover contractile power and the patient still had to use the catheter.

Dr. HENRY ROTH, of New York, had been associated with Dr. Syms in the series of prostatectomies and considered his method the best and most satisfactory one. He assisted in one case in which the patient was eighty-one years of age, which turned out well, the anæsthetic being well borne. Dr. Syms used chloroform.

Knowledge of the Eye That is of Use to the General Practitioner was the subject of a paper by Dr. S. BUSBY ALLEN, of New York, who said that it was a truism that a specialist should be well grounded in general practice before he undertook a specialty, but the converse was also true, that a general practitioner should know something of the specialties before he undertook the practice of medicine. There were many things a practitioner should know. Suppose he was called to a case where there were great prostration, fever, anxiety, biliousness, etc., with one eye swollen; stomach trouble, neurasthenia, or erysipelas, if the trouble were very bad, might be diagnosticated, when the real disease was glaucoma, and if this was not attended immediately, total blindness might result. Iridectomy would cure, if practiced in time. In this disease, early symptoms were halos around lights and gradual but rapid failure of vision; practitioners should know this disease, and a history of rheumatic disease in the family was suspicious. Tabes was shown by progressive loss of vision, the Argyll Robertson pupil, the appearance of the retina, and paralysis of the sixth nerve producing diplopia; this sometimes preceded diabetes. Rapidly failing vision sometimes foretold diabetic cataract. The pupil was not generally affected in diabetic tabes, but meiosis might occur. Cerebral syphilis was shown by inequality of the pupils and headache; often there were no other symptoms. Inequality of the pupils was always a grave sign. In all patients, light, accommodation, and convergence reflexes should be tested as a matter of routine, as well as the concentric reflex, which was accomplished by shading one eye with a card and observing if accommodation in the shaded eye was the same as in the unshaded one. The pupils

of nervous people were always dilated, while those of the aged were usually small. Pinching the skin of one side of the face would cause rapid dilatation of the pupil in some people. Intraocular diagnosis was naturally possible only to specialists; however, sudden loss of vision, it might be noticed, was not uncommon in acute parenchymatous nephritis. Ocular strain might often simulate chorea and epilepsy and, in children, it was not at all uncommon for eye troubles to be mistaken for chorea when correction by proper glasses would remove the symptoms.

Dr. F. W. HIGGIN, of Cortland, laid emphasis on the necessity of some knowledge of the eye on the part of the general practitioner. He thought, however, some intraocular diseases might safely be left to the family physician. Neurologists invariably examined the ocular fundus.

Dr. J. J. WALSH, of New York, wanted to know what was meant by ophthalmologists when they spoke of "rheumatic heredity." He then proceeded to read his paper on

The Early Diagnosis of Tuberculosis, in which he recommended the medical adviser to have the patient take his own temperature at 8 a.m. and 11 p.m. If there was a variation of a degree or a degree and a half, suspicion might justly be aroused; if, in addition, there was any rasping in either apex, diagnosis was certain. Exposure should be inquired into, as in any infectious or contagious disease, and little attention need be paid to heredity, the details concerning which were liable to be misleading.

Dr. GEORGE TUCKER HARRISON, of New York, brought the morning session to a close with a paper on

The Treatment of Septic Affections by Intravenous Injections of Collargol.

Luncheon was served as usual at 1 p.m.

(To be concluded.)

Book Notices.

The Practical Application of the Röntgen Rays in Therapeutics and Diagnosis. By WILLIAM ALLEN PUSEY, A. M., M. D., Professor of Dermatology in the University of Illinois; and EUGENE W. CALDWELL, B. S., Director of the Edward N. Gibbs X Ray Memorial Laboratory of the University and Bellevue Hospital Medical College, New York. Illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1903. Pp. 7-591. (Price, \$4.50.)

We have nothing but praise for this volume, the combined work of two authors than whom no one, in this country at least, is better fitted by training or experience to write in his individual field.

Mr. Caldwell's part—apparatus and technics—is clearly and interestingly presented. It is very concise, yet replete with valuable hints. Numerous helpful devices are described, many of them of the author's origination, but methods and appliances that are impracticable or unnecessary receive scant attention. For not according more space to the fluoroscopic study of intrathoracic diseases the author honestly excuses himself in the preface.

Part two—therapeutics—is dealt with by Profes-

Dr. Pusey in a thorough and scientific manner. It is a most painstaking, conservative, and logical presentation of the accumulated experience of all investigators. In the chapters on the gross and microscopical changes produced by the x rays in normal and in diseased tissues, on the effect of the x rays on bacteria, on the causes of the phenomena observed in tissues after exposure to the rays, and on the technics of therapeutic exposures, there is wide reference to the work of other investigators, and to this are added the observations of the author and his deductions from the experiences of all.

The brief chapter on the indications for the therapeutic use of x rays is an attempt to classify the conditions in which the known properties of the rays appear now to have a proper application. The remaining chapters deal with the use of the rays in the treatment of various diseases, and consist, for the most part, of the report of cases, almost two hundred of these being the author's. Here, again, the literature is freely quoted.

In the authentic reports thus gathered one cannot but be struck with the remarkable results that radiotherapy is accomplishing in lesions of the skin, malignant and benign. It is clear that this force is the means, *par excellence*, for the treatment of lupus vulgaris, that it is an agency of immense value in a host of other benign and malignant skin diseases, and that it is by no means without effect upon deeper-seated conditions. Even he, therefore, who has no personal experience with x ray work and no further familiarity with the literature than the abstracts here offered must accord with the very sane and conservative "general conclusions" with which Dr. Pusey closes his treatise.

The publishers deserve a full share of praise for the production of this book. It is well printed on stout, smooth paper. The illustrations, 176 in number, are without exception excellent, and the numerous microphotographs and photographs of patients before and during x ray treatment that illuminate Part II are faultlessly reproduced.

A Treatise on Diseases of the Anus, Rectum, and Pelvic Colon. By JAMES P. TUTTLE, A. M., M. D., Professor of Rectal Surgery in the New York Polyclinic Medical School and Hospital, Visiting Surgeon to the Almshouse and Workhouse Hospitals. With Eight Colored Plates and Three Hundred and Thirty-eight Illustrations in the Text. New York and London: D. Appleton & Company, 1903. Pp. xviii-961.

Dr. Tuttle has given us in this work a most exhaustive treatise on the disease of the anus, rectum, and pelvic colon, made possible by his extensive experience in one of the largest clinics specially devoted to the cure of these diseases. He has not fallen into the error of making his work purely practical and technical, but he has started it in the first chapter with a thoroughness in the attention given to the embryology, anatomy, and physiology of the rectum which at once inspires confidence in the reader. This same spirit is manifest in the detail given to the pathology and bacteriology of the various affections considered. The readers of the book also derive the benefit of the author's familiarity

with the vast literature bearing on his specialty, which he frequently cites and quotes.

The illustrations are numerous, well executed, and for the greater part original. The writer liberally sets forth his differences of opinion with those of his associates. Viewed from a standpoint of completeness in technical detail bearing on operations, there is little to be wished for.

We cannot, save in a spirit of cavil, fairly single out any particular failing in this very comprehensive work, nor does the space permit it; for we take a broad view in crediting its author with a sincerity of expression and thoroughness in the treatment of the entire subject which will undoubtedly gain for his treatise a deservedly wide circle of readers.

Erneuerte Versuche über den Einfluss des Schilddrüsenverlustes und der Schilddrüsenfütterung auf die Heilung von Knochenbrüchen. Mit 3 Tafeln. Von Dr. G. P. BAYON, z.Z., Assistent an der psychiatrischen Klinik. Von der hohen med. Fakultät zu Würzburg preisgekronete Arbeit. Würzburg: A. Stuber's Verlag (C. Kabitsch), 1903. Pp. 249-311.

Ever since Hanau and Steinlin, a few years ago, investigated the action of the thyroid gland as an aid in the treatment of slowly healing fractures, the medical profession has been much interested in the development of this subject. A great deal has been written about it, and some genuinely beneficial results have been reported by numerous writers.

The author, in the first part of the pamphlet, reviews the previous experiments made upon the subject; in the second part he gives abstracts of various clinical observations recorded in literature; and in the third and concluding part he reports his own experiments, including the microscopical findings. He summarizes the results as follows: Thyroidectomy in rabbits decidedly retards the healing of fractures; this retardation sets in immediately after the removal of the thyroid gland, and long before cachexia takes place; the administration of thyroid preparations in cases in which the thyroid gland has been extirpated hastens the healing, but replaces only in part the action of the gland *in situ*; the giving of thyroid preparations in normal animals decidedly hastens the healing of fractures; and, lastly, complete thyroidectomy, including the parathyroid gland, is not necessarily fatal in rabbits.

The pamphlet is most clearly and concisely written, and the bibliography is quite copious.

Le Sang (physiologie générale). Par MARCEL LABBÉ, Médecin des hôpitaux de Paris, etc. Avec figures dans le texte. Paris: J. B. Baillière et fils, 1902. Pp. 5 to 95.

In this very interestingly written treatise on the physiology of the blood the author aims to do what is not done in any of the textbooks of physiology, to set forth the physiology of the blood in the light of the most recent research on the formation of the blood elements and their destruction, the toxins and antitoxins, the lysins, ferments, etc. He has succeeded in giving us a most readable little book, but has not aimed at an exhaustive treatment of the subject.

BOOKS, ETC., RECEIVED.

On a Characteristic Organism Associated with Cancer of the Breast. By KEITH W. MONSARRAT. At the University Press of Liverpool. 1903. Pp. 188.

Transactions of the American Ophthalmological Society. Thirty-ninth Annual Meeting, Washington, D. C., 1903. Vol. X, Part I. Hartford: Published by the Society. 1903. Pp. 196.

A Text-Book of the Practice of Medicine. Designed for the Use of Students. By JAMES MAGOFFIN FRENCH, M. D. Large 8vo, 800 pages, Illustrated by Ten Full-Page Plates in Black, Colors, and Tints, and Fifty Wood Engravings. Muslin, \$4.00 net; Leather, \$4.75 net.

General Pathology. By Dr. ERNST ZIEGLER. Tenth Revised Edition. Translated and Edited by ALDRED SCOTT WARTHIN, PH. D., M. D. Royal, 8vo, 784 Pages, Illustrated by 586 Engravings in Black and Colors. Muslin, \$5.00 net; Leather, \$5.75 net.

Annual Reports of the Supervising Surgeon-General of the Marine-Hospital Service of the United States for the Fiscal Years 1900 and 1901. Washington: Government Printing Office. Pp. 736 and 652.

Miscellany.

Two Medical Epitaphs.—Dr. Frederic Griffith writes to us that chiselled in the end of a vaulted tomb in St. Leonard's Parish churchyard, in Shoreditch, London, he found the following inscription:

"DR. JOHN GARDNER'S
Last and best bedroom,
1807."

While there is a possible chance for misconception arising in the casual reader's mind, there is left no doubt in the pilgrim to the grave of Sir Astley Cooper, whose body lies buried beneath the chapel in Guy's Hospital. Upon a tablet placed at the portals is graven:

"In memory of
Sir Astley Cooper Bart,
For twenty-five years
Surgeon of this hospital,
Who died on the 12th February, 1841.
Aged 73 years.
By his own particular desire,
His remains have been deposited
In the vault below
Within the precincts of the institution
In which he received his professional education, and which
Having contributed to the development,
Enjoyed the benefits, and shared the lustre
Of those remarkable talents,
Which won for their possessor,
The undisputed title of
The first surgeon of his age.
To mark the resting place of
So distinguished a man
And to evince their sense of
His services to the hospital,
The governors
Have caused this tablet to be erected."

Operations Before Anæsthesia.—About 1840, there lived in New York a physician by the name of W. Beach, who, notwithstanding his membership in the New York State and county medical societies, was able to publish without rebuke, a medical work addressed to the general public; it was approved

even by prominent English physicians. His object, apparently, was to discourage the employment of surgery in malignant growths and particularly in tuberculous kneejoint, the latter condition, which, he says, probably not without reason, he had been able to treat successfully by the internal administration of alteratives. He cites in the most delightfully innocent and unethical way a case of a little girl upon whom operation had been advised by the New York surgeons, but who had been "cured" of a white swelling by a "bonesetter," by immobilization and hot fomentations. He continues in the work spoken of as follows: "Thus Nature was left to work itself out of its own predicament; and by dint of careful, simple, and gentle treatment . . . the little patient was, in a few weeks, restored to her overjoyed parents, whole and sound. We are by no means inclined to disparage the noble science of surgery; we view it even as the *most* honorable of professions; but we would deprecate that precipitate zeal in imprudent practitioners which . . . loses sight of the grand truth—that art is but nature's auxiliary. The details of an operation, as related in the *Morning Herald* of July 21, 1841, are sufficient to sicken the soul at such rash and merciless treatment: 'The next was an interesting one of white swelling, for which the thigh was to be amputated. The patient was a youth about 15, pale, thin, but calm and firm. One professor felt for the femoral artery, had the leg held up for a few moments to ensure the saving of the blood, the compress part of the tourniquet was placed upon the artery, and the leg held by an assistant; the white swelling was frightful. A little wine was given to the lad; he was pale, but resolute; his father supported his head and left hand; a second professor took the long, glittering knife, felt for the bone, thrust in the knife, carefully but rapidly; the boy screamed terribly, the tears ran down the father's cheeks. The first cut from the inside was completed, and the bloody blade of the knife issued from the quivering wound; the blood gushed by the pint; the sight was sickening, the screams were terrific, the operator calm. Again the knife was thrust in under the bone; the terrific screaming was renewed; one or two picked up their hats to leave; scream on scream—and again the bloody blade of the knife issued from the wound, and was laid aside. The flesh quivered, and the boy cried agonizedly "Oh father! father! father! Oh, Mercy! mercy!" The flesh was thrust back with a small piece of wet linen, the divided ends of the quivering muscles were stopped from blood with a sponge, the saw glistened in the hands of the operator, the father turned as pale as death, the boy's eyes fastened on the instrument with glazed agony; grate—crush—once—twice—and the useless limb, from the toes to the centre of the thigh, was quickly dropped into the tub under the table. At this moment, the father's eyes closed, his child's hand dropped from his grasp, he reeled from the table, and fell senseless on the floor.

"The arteries were taken up, cold compresses only were applied; one or two stitches in the flesh, one or two more screams, and the boy was taken into an adjoining room and laid on a bed. The whole took less time than the details have occupied in writing.'

"With what eagerness and curiosity," continues Dr. Beach, solemnly, "were these 'cut and slash' proceedings viewed by the assembled students! Alas! these public displays of surgery are fraught with alarming consequences. The above operation was performed at the Stuyvesant Institute.

"Tis the sad spot where Mis'ry sheds her tear,
And scenes of blood the human feelings sear."

The foregoing is accompanied by a horrific engraving in the style of the early forties, representing the amphitheatre where the operation is being performed. The patient is tied by two ropes passing under the operating table; a tub is ready for the amputated limb; an assistant holds a basin, presumably to take up some of the expected hæmorrhage; and a fat doctor, for all the world like one of Cruickshank's characters out of Dickens, is anxiously keeping time by means of a large watch. The background is filled with students, laughing, some of them, we regret to say, very much in the manner of their modern successors.

Official News.

Public Health and Marine Hospital Service Reports:

The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon General, Public Health and Marine Hospital Service, during the week ending October 23, 1903:

Smallpox—United States.

Place.	Cases.	Deaths.
California—Los Angeles.....Oct. 4-10.....	1	
Colorado—Denver.....Aug. 29-Sept. 26.....	4	
Florida—Jacksonville.....Oct. 11-17.....	1	
Illinois—Chicago.....Oct. 11-17.....	3	
Illinois—Danville.....Oct. 11-17.....	1	
Louisiana—New Orleans.....Oct. 11-17.....	2	imported
Maryland—Baltimore.....Oct. 11-17.....	1	
Mississippi—Natchez.....Oct. 12-19.....	1	
Missouri—St. Louis.....Oct. 3-10.....	2	
New Hampshire—Manchester.....Oct. 11-17.....	3	
New Jersey—Camden.....Oct. 11-17.....	1	
Ohio—Cincinnati.....Oct. 9-16.....	2	
Ohio—Cleveland.....Oct. 11-17.....	1	
Pennsylvania—Altoona.....Oct. 11-17.....	1	
Pennsylvania—Johnstown.....Oct. 11-17.....	14	
Pennsylvania—Philadelphia.....Oct. 11-17.....	54	
Pennsylvania—Pittsburgh.....Sept. 12-Oct. 17.....	279	60
	7 cases imported.	
South Carolina—Charleston.....Oct. 11-17.....	1	
W. Virginia—Jefferson County.....Oct. 1-15.....	14	
West Virginia—Wheeling.....July 1-Sept. 30.....	4	2
Wisconsin—Milwaukee.....Oct. 11-17.....	9	

Smallpox—Insular.

Philippine Islands—Cebu.....Aug. 1-31.....	8	4
Philippine Islands—Manila.....Aug. 30-Sept. 12.....	3	

Smallpox—Foreign.

Brazil—Pernambuco.....Aug. 16-Sept. 15.....	23	
Brazil—Rio de Janeiro.....Sept. 14-27.....	109	40
Chile—Antofagasta.....Aug. 25-31.....	9	
Colombia—Barranquilla.....Sept. 28-Oct. 4.....	2	
Formosa.....Aug. 1-31.....	1	
Great Britain—Birmingham.....Sept. 27-Oct. 3.....	9	
Great Britain—Bristol.....Sept. 27-Oct. 3.....	1	
Great Britain—Glasgow.....Oct. 2-9.....	1	
Great Britain—Leeds.....Oct. 4-10.....	4	
Great Britain—Liverpool.....Sept. 27-Oct. 3.....	8	
Great Britain—London.....Sept. 27-Oct. 3.....	1	
Great Britain—Manchester.....Sept. 27-Oct. 3.....	2	
Gt. Britain—Newcastle-on-Tyne.....Sept. 27-Oct. 3.....	5	1
Malta.....Sept. 20-26.....	6	
Mexico—Mexico.....Sept. 28-Oct. 11.....	5	4
Mexico—Merida.....Oct. 11.....	1	
Russia—Odessa.....Sept. 27-Oct. 3.....	1	
Russia—St. Petersburg.....Sept. 20-26.....	19	12
Russia—Warsaw.....Aug. 28-Sept. 12.....	7	
Spain—Barcelona.....Sept. 27-Oct. 3.....	4	
Turkey—Constantinople.....Sept. 28-Oct. 4.....	3	
Turkey—Smyrna.....Sept. 28-Oct. 4.....	77	
Venezuela—Yariguá.....Sept. 23.....	1	Prevalent.

Yellow Fever—United States.

Texas—Connell.....Oct. 20.....	1	
Texas—Castroville.....Oct. 21.....	1	
Texas—Hondo.....Oct. 19.....	1	
Texas—Laredo.....Oct. 14-21.....	98	7
Texas—San Antonio.....To Oct. 21.....	13	3

Yellow Fever—Foreign.

Brazil—Rio de Janeiro.....Sept. 14-27.....	5	1
Mexico—Mexico.....Sept. 28-Oct. 4.....	1	
Mexico—Merida.....Oct. 4.....	14	
Mexico—Nuevo Laredo.....Oct. 12-21.....	14	2
Mexico—Progreso.....Oct. 4-11.....	2	
Mexico—Tampico.....Sept. 30-Oct. 10.....	6	
Mexico—Vera Cruz.....Oct. 3-10.....	38	11
Venezuela—Puerto Cabello.....Sept. 20-26.....	1	

Cholera—Insular.

Philippine Islands—Manila.....Aug. 30-Sept. 12.....	94	76
Philippine Islands—Provinces.....Aug. 30-Sept. 12.....	1,614	1,394

Cholera—Foreign.

China—Hankow.....Sept. 12-19.....	1	1
China—Hongkong.....Sept. 5.....	1	
China—Shanghai.....Oct. 12-19.....	21	
China—Tientsin.....Sept. 12-19.....	3	
India—Calcutta.....Sept. 6-12.....	1	
India—Madras.....Sept. 6-12.....	5	
Straits Settlements—Singapore.....Aug. 29-Sept. 5.....	11	

Plague—United States.

California—San Francisco.....Oct. 7.....	1	1
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Plague—Insular.

Philippine Islands—Cebu.....Aug. 19-Sept. 12.....	6	3
Philippine Islands—Manila.....Aug. 30-Sept. 12.....	3	3

Plague—Foreign.

Brazil—Rio de Janeiro.....Sept. 14-27.....	62	24
Chile—Iquique.....Aug. 28-Sept. 11.....	9	5
China—Newchwang.....Sept. 12-19.....	73	62
Egypt—Alexandria.....Sept. 12-18.....	8	4
Egypt—Damietta.....Sept. 12-19.....	1	1
Formosa.....June 1-Aug. 31.....	164	142
India—Calcutta.....Sept. 6-12.....	13	
Italy—Licata.....Sept. 13-20.....	1	1

In the report to the journals for September 19th, eleven cases of smallpox were accredited to Ogden, Utah, when there should have been only one.

Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the 21 days ending October 22, 1903:

- ANDERSON, J. F., Passed Assistant Surgeon. To proceed to Baltimore, Md., for special temporary duty. October 1, 1903.
- BAILHACHE, PRESTON H., Surgeon. Detailed to represent the service at meeting of the American Public Health Association at Washington, D. C., October 26th.
- BAHRENBURG, L. P. H., Assistant Surgeon. Granted leave of absence for seven days from October 14, 1903, under paragraph 191 of the regulations. Granted extension of leave of absence for seven days from October 22nd.
- BROWN, B. G., Passed Assistant Surgeon. Granted leave of absence for one day. October 18.
- BROWN, F. L., Pharmacist. To proceed to St. Louis, Mo., and report to Medical Officer in Command for temporary duty. October 10, 1903.
- CARRINGTON, P. M., Surgeon. Two days' leave of absence from October 15, 1903, under paragraph 189 of the regulations.
- CARMICHAEL, D. A., Surgeon. Granted leave of absence for thirty days from October 16th.
- FORD, C. B., Acting Assistant Surgeon. Granted leave of absence for three days from October 24th.
- FRANCIS, EDWARD, Assistant Surgeon. To proceed to the City of Mexico, Mexico, for special temporary duty. October 6, 1903.
- FRICKS, L. D., Passed Assistant Surgeon. Granted leave of absence for one month from November 1st.
- GOLDSBOROUGH, B. W., Acting Assistant Surgeon. Department letter of September 10, 1903, granting Acting Assistant Surgeon Goldsborough leave of absence for three weeks from September 10th, amended so that said leave shall be for three weeks from September 22nd.
- GOODMAN, F. S., Pharmacist. To proceed to Laredo, Texas, and report to Surgeon G. M. Guiteras for special temporary duty as special disbursing agent. October 2, 1903.
- GRUBBS, S. B., Passed Assistant Surgeon. Granted leave of absence for five days.
- JACKSON, J. M., Acting Assistant Surgeon. Granted leave of absence for thirty days from October 5th.
- KALLOCH, P. C., Surgeon. Granted leave of absence for three days.
- KING, V. W., Assistant Surgeon. Detailed as inspector of

unserviceable property at Ponce, P. R. October 17, 1903.

LUMSDEN, L. L., Passed Assistant Surgeon. To proceed to Beaumont, Texas, for special temporary duty. October 2nd. To proceed to Eagle Pass, Texas, for special temporary duty. October 5, 1903. To proceed to El Paso, Texas, and assume temporary charge of the station. October 13, 1903.

MAGRUDER, G. M., Surgeon. Granted extension of leave of absence, on account of sickness, for two weeks from October 7th.

MASON, M. R., Pharmacist. Relieved from duty at Nome, Alaska, and directed to proceed to San Francisco, Cal., and report to Medical Officer in Command for duty. October 8, 1903.

MATHEWSON, H. S., Passed Assistant Surgeon. Department letter of September 23rd granting Passed Assistant Surgeon Mathewson leave of absence for forty-five days from September 22nd, amended so that said leave shall be for forty-five days from October 3rd.

NYDEGGER, J. A., Passed Assistant Surgeon. Bureau letter of September 4th granting Passed Assistant Surgeon Nydegger leave of absence for one month from September 13, 1903, amended so that said leave shall be for one month from September 23rd. Granted leave of absence for ten days, on account of sickness, from September 13th.

PERRY, J. C., Passed Assistant Surgeon. To proceed to Charlestown, W. Va., for special temporary duty. October 12, 1903.

RICHARDSON S. W., Pharmacist. Department letter of September 15, 1903, granting Pharmacist Richardson leave of absence for ten days, revoked. To proceed to New York, N. Y., and Providence, R. I., for special temporary duty. October 14, 1903.

RICHARDSON, T. F., Assistant Surgeon. To proceed to San Antonio, Texas, for special temporary duty. October 21, 1903.

SIBREE, H. C., Acting Assistant Surgeon. Granted leave of absence for six days from October 6th.

STANTON, J. G., Acting Assistant Surgeon. Granted leave of absence for thirty days from October 10th.

WERTENBAKER, C. P., Passed Assistant Surgeon. To proceed to Beaumont and Houston, Texas, for special temporary duty, October 2, 1903. To proceed to El Paso, Texas, for special temporary duty, October 5, 1903.

WHITE, J. H., Surgeon. To proceed to Gulf Quarantine Station and assume temporary charge.

WOODS, C. H., Pharmacist. To rejoin station at Chicago, Ill. October 10, 1903.

Promotions.

G. A. MORRIS, pharmacist of the third class, promoted to be pharmacist of the second class, effective September 3rd.

CHARLES MAPLES STEGER recommissioned as assistant surgeon in the Public Health and Marine Hospital Service to correct original commission, effective September 16th.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending October 24, 1903:

BOGAN, F. M., Assistant Surgeon. Commissioned passed assistant surgeon from June 7, 1903.

CAMPBELL, F. E., Assistant Surgeon. Appointed assistant surgeon from October 12, 1903.

COWAN, J., Pharmacist. Retired from active service, October 19, 1903, under the provision of Sec. 1453, R. S.

GILL, J. E., Assistant Surgeon. Appointed assistant surgeon from October 12, 1903.

MILLER, J., Assistant Surgeon. Appointed assistant surgeon from October 12, 1903.

PAYNE, J. H., Assistant Surgeon. Commissioned passed assistant surgeon from June 7, 1903.

PUGH, W. S., Assistant Surgeon. Ordered to the Naval Museum of Hygiene and Medical School, Washington.

REEVES, I. S. K., Assistant Surgeon. Appointed assistant surgeon from October 12, 1903.

SNYDER, J. J., Assistant Surgeon. Commissioned passed assistant surgeon from June 7, 1903.

TAYLOR, E. C., Assistant Surgeon. Appointed assistant surgeon from October 12, 1903.

WRIGHT, B. L., Passed Assistant Surgeon. Commissioned a passed assistant surgeon from March 3, 1903.

Births, Marriages, and Deaths.

Married.

BAETJER—CAREY.—In Baltimore, Maryland, on Wednesday, October 14th, Dr. Frederick H. Baetjer and Miss Mary Y. Carey.

BARTINE—DAVIS.—In Philadelphia, Pennsylvania, on Tuesday, October 20th, Dr. Charles Orin W. Bartine and Miss Mary Rowland Davis.

BIGHAM—GRIFFIN.—In New York, N. Y., on Tuesday, August 11th, Dr. L. T. Bigham and Miss Ethel Griffin.

BURCH—TURNER.—In Charleston, South Carolina, on Tuesday, October 13th, Mr. Charles Llewellyn Burch and Miss Martha Louise Turner, daughter of Dr. W. T. Turner.

COONLEY—WORTH.—In East Orange, New Jersey, on Wednesday, October 21st, Dr. Frederick Coonley and Miss Mabel Worth.

EGLIN—HORN.—In Harrisburg, Pennsylvania, on Tuesday, October 20th, Dr. Archibald Campbell Eglin and Miss Catherine Schaeffer Horn.

GELLHORN—FISCHEL.—In St. Louis, Missouri, on Wednesday, October 21st, Dr. George Gellhorn and Miss Edna Fischel.

HAASS—RAMEY.—In Detroit, Michigan, on Friday, October 16th, Dr. E. W. Haass and Miss Maud Ramey.

HIGBEE—LAMMERT.—In St. Louis, Missouri, on Wednesday, October 21st, Dr. Edward H. Higbee and Miss Lily Lammert.

KNOWLES—WILLIAMS.—In Brooklyn, N. Y., on Wednesday, October 21st, Dr. Frederick Knowles and Miss Sophie Maxwell Williams.

McLAUGHLIN—ROWAN.—In New York, N. Y., on Wednesday, October 21st, Dr. John J. McLaughlin and Miss Evelyn Rowan.

STANLEY—KNOX.—In Engelwood, New Jersey, on Saturday, October 17th, Dr. Rolof Benckert Stanley and Miss Alice Dana Knox.

SUDLER—GILPIN.—In Baltimore, Maryland, on Wednesday, October 21st, Dr. Arthur Emory Sudler and Miss Louise Painter Gilpin.

ULLMAN—PLATKY.—In New York, N. Y., on Monday, October 26th, Dr. Julius Ullman and Miss Eugenia Platky.

WARD—HAWKINS.—In Baltimore, Maryland, on Thursday, October 15th, Dr. J. Francis Ward and Miss Elizabeth R. Hawkins.

WARREN—VAN HOUSEN.—In Chicago, Illinois, on Thursday, October 15th, Dr. Homer Samuel Warren and Miss Charlotte Van Housen.

WILLIAMSON—STILWELL.—In Chicago, Illinois, on Thursday, October 15th, Dr. Charles Spencer Williamson and Mrs. Joseph Gillette Stilwell.

Died.

FILBERT.—In Philadelphia, Pennsylvania, on Monday, October 19th, Dr. Ludwig Spang Filbert, in the seventy-ninth year of his age.

JOHNSON.—In Hudson, Wisconsin, on Friday, October 16th, Dr. S. C. Johnson, in the sixty-first year of his age.

LEWIS.—In Buffalo, N. Y., on Sunday, October 18th, Dr. Angelo Corello Lewis, in the fifty-sixth year of his age.

McCREARY.—In Mayking, Kentucky, on Saturday, October 17th, Dr. Joseph N. McCreary, in the thirty-fourth year of his age.

PILGRIM.—In New York, N. Y., on Sunday, October 18th, Dr. Maurice F. Pilgrim.

SMITH.—In New York, N. Y., on Friday, October 23rd, Dr. Davison H. Smith, in the thirtieth year of his age.

WALCOTT.—In San Francisco, California, on Tuesday, October 20th, Dr. Masa Walcott, in the eighty-first year of his age.

WALDIE.—In Brooklyn, N. Y., on Sunday, October 18th, Dr. John L. Waldie, in the thirty-second year of his age.

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THE DWARF TAPEWORM (*HYMENOLEPIS NANA*), A NEWLY RECOGNIZED AND PROBABLY RATHER COMMON AMERICAN PARASITE.*

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Mr. President and Physicians of the State of Maryland: Before passing to my subject, it is a pleasant duty for me, first, to present to you the compliments of Surgeon-General Wyman, with his best wishes for a successful meeting; and secondly, to thank you for the honor you have conferred upon me by inviting me to address you this evening.

As subject of my remarks, I have tried to select

is certainly a rather rare parasite among us, especially in the North and West, as is to be expected from our national culinary habits.

If you examine American museum collections, you will find that the "unarmed tapeworm," *Tania saginata*, which we contract through eating beef, is more common than any other museum specimen of tapeworm.

The "broad Russian tapeworm," *Dibothriocephalus latus*, which is contracted through eating fish, is occasionally found in this country, but must be considered as rare.

These are the three tapeworms with which all American physicians are acquainted, either theoretically or practically, but, too frequently, I am sorry to say, it seems to be immaterial to our practitioner which tapeworm his patient harbors, although from several points of view, and especially

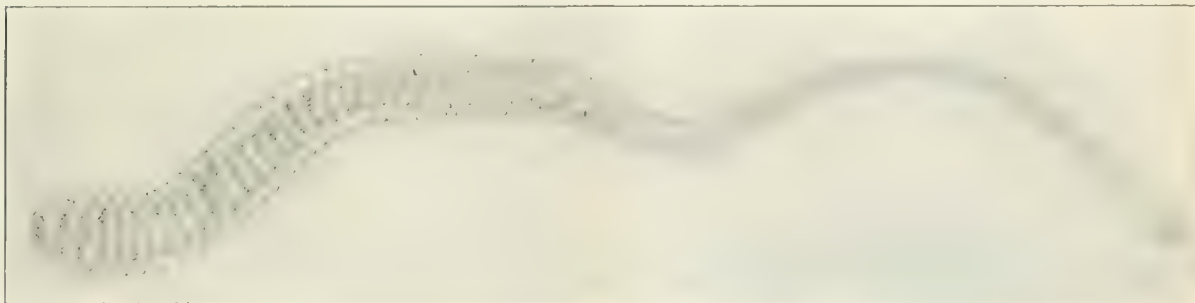


FIG. 1. Head and strobila of *Hymenolepis nana*. (After LOCKERT, 1893, p. 293, Fig. 112)

something of practical, as well as of scientific, interest, and incidentally a matter not discussed to any extent in American medical literature, for up to the moment of this address, it has been known to very few people that there exists a probably more or less common tapeworm in certain parts of this country which has almost entirely escaped attention.

TAPEWORMS OF MAN FOUND IN THE UNITED STATES.

If you consult American medical text books, you will find the statement frequently made that the "armed tapeworm," *Tania solium*, which we contract from eating pork, is the most common tapeworm of man in the United States. This statement is undoubtedly erroneous for *Tania solium*

from the standpoint of preventive medicine the question is sometimes an important one.

These three are not the only tapeworms of man found in this country. Ward has described a *Tania confusa* taken in Nebraska. A much smaller parasite, the "flavopunctate tapeworm" (*Hymenolepis diminuta*) has been reported for man in this country three times, namely, by Weinland (1858), Leidy (1884), and Packard (1900). Quite recently (1902), I have reported a case of infection with another small parasite, the "double pored dog tapeworm," *Dipylidium caninum*.

The first four parasites I have mentioned, namely, *Tania solium*, *Tania saginata*, *Tania confusa*, and *Dibothriocephalus latus*, are all large worms, varying from 10 to 32 feet in length. The flavopunctate tapeworm and the double pored dog tapeworm

*Address before the Medical and Surgical Faculty of Maryland, delivered with lantern slide demonstrations, September 24, 1903

(*Hymenolepis diminuta* and *Dipylidium caninum*) vary in length from about 7 to 21 inches.

GENERAL CHARACTERS OF THE DWARF TAPEWORM.

The tapeworm I wish to discuss this evening (Fig. 1) is a mere Tom Thumb compared with any thus far mentioned, as it measures from $\frac{1}{16}$ th to slightly less than 2 inches (5 to 45 mm.) in length. Like *tænia* it has four suckers on the head and the genital pores are lateral, but all the latter are on the left margin. Like *Tænia solium*, the head has a crown of hooks (Fig. 2), which in *Tænia solium* is double, in *Hy-*

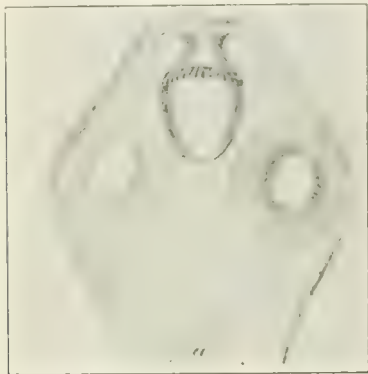


FIG. 2.—Head and isolated hook of *Hymenolepis nana*. After Leuckart, 1863, p. 394, Fig. 113.)

menolepis nana single, and the hooks are of a characteristic form, different from those of *Tænia solium*. Characteristic for the genus *Hymenolepis* is the presence of three testicles in each segment, while each segment of *Tænia saginata* possesses about 1,200 testicles (Fig. 3). The uterus is also

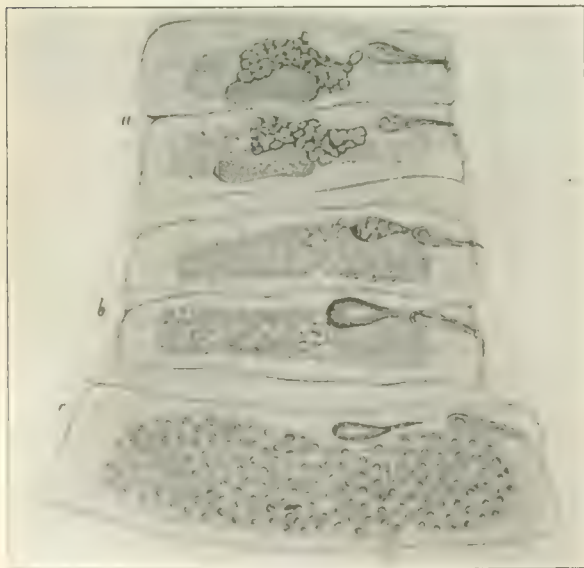


FIG. 3.—Proglottides of *Hymenolepis nana*: a, showing ovary; b, showing eggs in the course of formation; c, containing eggs in the ripe condition. (After Leuckart, 1863, p. 396, Fig. 114.)

entirely different from that of any tapeworm usually diagnosticated by American physicians.

The eggs of cestodes of the genus *Tænia* have a thick, inner radially striated shell; those of *Dipylidium caninum* occur in clusters; the eggs of the broad Russian tapeworm have a cap on one end and, in the stage found in the fæces, they do not contain the 6-hooked embryo. Eggs of the genus *Hymenolepis* have 2, 3, or 4 thin shells or membranes, those of the *Hymenolepis nana* having two distinct membranes, the inner one presenting at each pole a more or less conspicuous mamillate projection provided with filamentous appendages (Fig. 4).



FIG. 4.—Egg of *Hymenolepis nana* as seen in the fresh fæces. (After Ransom, from Stiles, 1903, p. 85, Fig. 85.)

HISTORICAL REVIEW.

The dwarf tapeworm was first described in France by Dujardin, in 1845, as a parasite in the brown rat (*Mus decumanus*) and was named *Tænia murina*. This name, however, cannot stand for it was used in 1789 by Gmelin for a different parasite. Bieharz, in 1851, found a parasite in man, in Egypt, and the next year this was named *Tænia nana* by von Siebold, while more recent observations show that this parasite of man is specifically identical with Dujardin's *Tænia murina* of rodents and that the species belongs in the genus *Hymenolepis*. Since the early observations by Dujardin and Bilharz, it has been shown that *Hymenolepis nana* occurs either in man or in rodents, or in both, not only in Egypt and France, but also in England, Italy, Sicily, Russia, Germany, Servia, Austria, Denmark, Siam, Japan, Brazil, Argentine, and the United States. About 100 cases in man have thus far been recorded, most of the patients being males and the large majority children, commonly between the ages of five and ten years; 65 of these cases were in Sicily, where it has been estimated by Calandruccio that 10 per cent. of the children are infected. This estimate may, however, be too high.

The first case ever reported for the United States was published by Dr. Spooner, in 1873. The second case recognized in this country was found by Dr. John T. Moore, in Galveston, Texas, who, in the summer of 1902, sent me several specimens of the worm with which I was able to confirm his diagnosis. Dr. Moore published a preliminary note on his case last April. In October, 1902, I found one case in Charleston, S. C., and in November I found three additional cases in Macon, Ga. This year, one of my assistants (A. L. Murray) has found six additional cases in the District of Columbia, and I have recently received specimens from Dr. L. E.

Magenat, from a case in Amarillo, Texas. Dr. Magenat reports an additional case to me from the same family and has sent me drawings of the eggs he noticed in the stools.¹ Finally, Dr. J. B. De Velling, of Jackson, Miss., writes me that he has had several cases. Thus, for the United States, my laboratory has diagnosticated, or positively confirmed the diagnosis, in eighteen cases within about a year; and we have had one additional case, diagnosticated as probable from a drawing.² The geographical distribution of all the positive and probable cases known for this country is: Philadelphia, 1 case (Spooner); Washington, D. C., 12 cases (Murray, Garrison, Hemler, Olesen); Charleston, S. C., 1 case (Stiles); Macon, Ga., 3 cases (Stiles); Jackson, Miss., several cases (De Velling); Galveston, Tex., 1 case (Moore); Amarillo, Tex., 4 cases (Magenat).

In addition, I may say that the U. S. Bureau of Animal Industry possesses specimens of this same species taken from rats in Maryland and the District of Columbia.

Since September 1, 1902, my division of the Hygienic Laboratory has examined about 3,500 patients for intestinal parasites, and we have found the dwarf tapeworm sixteen times, while the beef measles tapeworm, *Tenia saginata*, which is the common tapeworm of our pathological collections, has been found but twice, and we have not had a single case of *Tenia solium*, which, according to many authors, is the most common tapeworm of man in this country.

In view of the statistics and the geographical distribution just mentioned, I believe the indications are that the dwarf tapeworm, *Hymenolepis nana*, will eventually be shown to be a more or less common parasite in certain parts of this country, and on this account I have recently had one of my assistants (Mr. B. H. Ransom) prepare a very complete paper on the subject, discussing the parasite from both the zoological and the medical points of view.³

LIFE HISTORY OF THE PARASITE.

You will recall that tapeworms run through a somewhat complex life cycle. For instance, the

¹ Since this paper was read, I have had the pleasure of a personal call from Dr. Magenat, who informs me that he has had two additional cases, making four in all, in one family.

² Since this paper was prepared I have instituted a systematic examination of the children in the orphan asylums of the District of Columbia. Thus far 123 children have been examined, and six of these have been found infected with *Hymenolepis nana*; three cases were found by Mr. A. L. Murray and one case each was found by Mr. P. E. Garrison and Mr. W. F. Hemler, assistants in Division of Zoology, Hygienic Laboratory, and by Mr. R. H. Olesen, a student of Georgetown Medical School.

³ Brayton H. Ransom. An Account of the Tapeworms of the Genus *Hymenolepis* Parasitic in Man, Including Reports of Several New Cases of the Dwarf Tapeworm (*Hymenolepis nana*) in the United States. *Bulletin 16*, Hygienic Laboratory, U. S. Public Health and Marine Hospital Service, Washington, D. C. Now in MS.

eggs of *Tenia saginata*, when discharged in the feces, contain a small 6-hooked embryo, known as an onchosphere. This egg with contained embryo is swallowed by cattle; the shell is destroyed by the action of the intestinal fluids, and the embryo wanders to the muscles, where it develops into a larval stage known as a cysticercus; this is the infecting stage and contains the head of the future strobila, or adult tapeworm. Thus there are three stages (embryo, larva, and adult), and two hosts (cattle as intermediate host containing the larva, and man as definite host containing the adult).

In the case of the dwarf tapeworm, it has been proved by Grassi (1887) and Grassi & Rovelli (1892) that when the eggs of this parasite are swallowed by white rats (Fig. 5), the embryos escape from

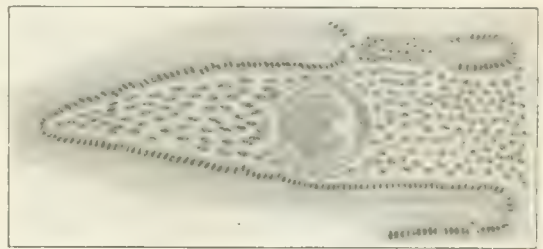


FIG. 5.—Longitudinal section of an intestinal villus of a rat containing a cercocystis of *Hymenolepis nana*. (After Grassi and Rovelli, 1892, pl. 3, Fig. 25.)

the shells, bore into the intestinal villi, become transformed into the larval stage (in this case known as a cercocystis), and later fall again into the lumen of the intestine, to become adult with mature eggs within fifteen days; thirty days from the time of infection, eggs were found in the feces. Strange as the life cycle seems, it has been experimentally demonstrated to occur in case the parasite infects rats, and the natural assumption is that the same cycle without intermediate host may take place when the parasite infests man. This assumption is supported by the fact that cases of very heavy infection occur in man, the circumstances indicating autoinfection, either per anum and os, or by reverse peristalsis—for there is no reason to assume that the eggs will develop in the small intestine without first passing through the stomach. The fact that the dwarf tapeworm may develop in the manner described, does not, of course, absolutely demonstrate that a life cycle with a distinct intermediate host is absolutely excluded, but for the present we need not consider such a cycle.

METHOD OF INFECTION.

The regular channels through which man becomes infected by this parasite have not been established through direct observation, but are deduced from certain general facts. It seems probable that rodents, especially rats and mice, are the

regular hosts for this worm, and it is known that in certain habitations rats and mice visit the pantries and food, as for instance bread. Such visitation is especially likely to occur in houses of poor construction and inhabited by the poorer classes. By this means, the eggs of the tapeworm may be spread to the food through the droppings of the mice and rats, and may infect man.

Ransom will show in his report that 38 out of 105 cases have occurred in inmates of orphan asylums, a poorhouse, and an insane asylum; also, that thus far, more cases have been reported from cities than from rural districts; that children in poor hygienic surroundings seem especially liable to infection; and that institutional life seems to favor the occurrence of this parasite in children and in adults.

The food supply seems to me to explain quite satisfactorily initial infections, either in the individual or in a family or institution; and the demonstrated life cycle without intermediate host offers a further explanation of the heavy infection (by autoinfection) of given individuals, as well as of the occurrence of groups of cases in an institution or family; for not only would all persons eating of the same infected food supply be liable to infection, but (as in the case of pinworm infection) a non-infected child sleeping in the same bed with an infected child would be liable to contract this worm.

POSITION AND NUMBER OF THE PARASITES PRESENT.

The dwarf tapeworm inhabits the ileum and there may be a single parasite or several thousand specimens present in a patient. Simultaneous infection with other parasites is common, and as many as four other species have been found occurring with *Hymenolepis nana*. Infection may persist from two months to two years and a half, perhaps to five years or longer, or until terminated by successful treatment.

PATHOLOGY.

The local pathological changes caused by this parasite seem to be slight, but very possibly the elimination of a toxine, absorbed by the host, plays an important rôle in causing the symptoms.

SYMPTOMS.

It must not be assumed that because of the small size of this worm its presence is of no importance; nor do I feel that we are justified in accepting the extreme view that the symptoms caused by this cestode are more severe than those caused by the larger tapeworms, such as *tænia*. Ransom, after a careful analysis of 105 cases, concludes that comparison with statistics relative to larger tapeworms indicates that the symptoms produced by the presence of the dwarf tapeworm, while not more severe, apparently occur with greater frequency in a severe

form in cases of infection with *Hymenolepis nana* than in cases of infection with the larger tapeworms. This circumstance, however, is considered not to indicate a greater nocuity of the smaller form, but to be due probably to the fact that a relatively greater number of cases are not recognized.

The symptoms produced by the dwarf tapeworm are usually slight, and may be absent entirely, even in patients in whom the worms may be present in large numbers. Severe symptoms, however, such as persistent diarrhœa, epileptiform attacks, etc., occasionally occur.

Severe nervous symptoms apparently determined by the presence of large tapeworms (*tænia*), were present in at least 10 per cent. of Cobbold's (1883) 100 collated cases. Convulsions were present in only 3 per cent. of Hirsch's (1879) 100 collated cases (also due to large tapeworms), but other phenomena occurred in a considerable number, which will allow an estimate of severe nervous symptoms in about 10 per cent. of the cases. Not more than 12 to 15 per cent. of all the cases of dwarf tapeworm infection reported, or 30 per cent. of the cases in which the presence or absence of symptoms has been reported, exhibited severe nervous symptoms, attributable with any degree of certainty to the action of the parasite.

A comparison with Seeger's (1852) statistics for 100 selected infections with large tapeworms tends to show that severe symptoms are less common in cases of *Hymenolepis nana* than in cases of other tapeworms, while comparison with the statistics of Cobbold and Hirsch indicates that grave nervous disturbances are more common in cases of *Hymenolepis nana* than in cases of *Tænia*. All these comparisons are open to criticism, but the first, although, perhaps, the most artificial of the three, probably arrives nearer the truth than either of the others, and it may be affirmed that severe effects from the presence of *Hymenolepis nana* are no more common than from the presence of other tapeworms, and are very likely much less common. The high percentage of severe effects with cases of *Hymenolepis nana*, as compared with cases of other tapeworms, is no doubt due, in part at least, to the fact that a proportionately greater number of cases of *Hymenolepis nana* pass unnoticed than of the larger tapeworms. The presence of a large tapeworm is usually made manifest, sooner or later, by the passage of segments, while a microscopical examination is necessary to determine the presence of *Hymenolepis nana*, and, as already remarked, unless there happen to be symptoms that will bring the patient under medical observation, in which case a fecal examination may be made, the chances are very much against the diagnosis of any particular case

among the general population. Thus, it has happened that a comparatively large number of cases have presented themselves in which severe symptoms were associated with the occurrence of *Hymenolepis nana*, while probably a very large number of cases have never been noticed because there have been no symptoms. A case of *Tænia saginata* or *Tænia solium*, on the other hand, is very likely to come under observation; the average individual, when he has once observed the passage of worms from his intestines, usually does not delay, whether there are any other unpleasant symptoms or not, to seek relief from the presence of these unwelcome guests; the case, consequently, stands a very much better chance of being placed somewhere on record. Another point might be noticed in this connection. *Hymenolepis nana* is more especially a parasite of children; the larger tapeworms are more common among adults. It is rather to be expected that children would, in general, experience more severe effects from parasitic infection than adults; nearly half of Cobbold's cases, for example, as noted above, which exhibited severe nervous symptoms, were in children, while the great majority of all his cases were in adults; an indiscriminate comparison of statistics, therefore, without taking into account the question of the age of affected individuals, is not likely to give a true idea of the relative nocuity of the different parasites.

The symptomatology of helminthiasis due to the dwarf tapeworm is summarized as follows by Ransom (from whose manuscript I have made liberal quotations this evening):

"The effects of helminthiasis with *Hymenolepis nana* are no more severe than may occur from infection with other tapeworms, nor, if it is considered that many cases of the former are probably overlooked, are serious symptoms more common. Although the effects are usually so slight, even though the parasite be present in considerable numbers, that the symptoms are only very mild or absent entirely, it occasionally happens, as with the larger tapeworms, that severe symptoms (persistent diarrhœa, epileptiform attacks, etc.) are exhibited. The most frequent symptoms determined by the presence of *Hymenolepis nana* are abdominal pain, which may or may not be associated with diarrhœa; convulsions of various sorts, frequently epileptiform; headache; and strabismus. Nasal or anal pruritus, common in cases of infection with other tapeworms, is rarely seen with *Hymenolepis nana*. In many cases in which a neuropathic condition is already present, infection with *Hymenolepis nana* is likely to result in an aggravation of the morbose phenomena, and, in general, a predisposition to nervous disease seems to be the important factor in the appearance of nervous symptoms."

DIAGNOSIS.

The positive diagnosis of the presence of the dwarf tapeworm may be made in two ways: first, by finding the minute worms or their segments in the stools. You will readily see, however, that this method of diagnosis is much less satisfactory than the same method when applied to the larger tapeworms, for the segments of the dwarf tapeworm are very small and may easily escape attention. The second method, which is the one which should always be followed, is by finding the characteristic eggs in the stools. This diagnosis can be made only by a person who knows how to use the microscope, and who knows the eggs of the various intestinal parasites, but for him it is exceedingly easy.

TREATMENT.

In treating for the dwarf tapeworm, male fern is the only drug which has thus far met with any degree of success. The use of kousso, kamala, santonin, thymol, and pomegranate, has proved ineffective in the cases in which any of these drugs were tried.

PREVENTION.

The subject of prevention may be summed up in a few words: cleanly personal habits; keep mice and rats away from the food supply; in case a person is found to harbor the dwarf tapeworm, he should occupy a bed alone until all his worms have been expelled.

THE OPERATIVE TREATMENT OF CHRONIC BRIGHT'S DISEASE; A SECOND COMMUNICATION, BASED ON REPORTS OF ONE HUNDRED AND TWENTY CASES.*

By RAMON GUITERAS, M. D.,

NEW YORK.

At a meeting of this association, held in Atlantic City, last year, I presented a paper entitled The Operative Treatment of Chronic Bright's Disease, in which I reviewed the literature and reported two cases, one of total decapsulation, the other of partial stripping of the capsule together with fixation of the organ to the abdominal wall. In my work last year I began as a skeptic, and did not feel like pushing my investigations as I should have done had I looked more favorably upon this operation; and I may say frankly that I refused to operate upon many patients referred to my hospital wards that I should now consider deserving of operative interference. My own experience and the growing favor with which this operation is looked upon by some of our leading

* Read before the Gynecology Section of the Congress of American Physicians and Surgeons, Washington, D. C., May 11, 1903.

physicians have induced me to send out a circular letter to the leading surgeons of our country to ascertain what their experience had been in this important line of renal work.

In this way the pulse of the profession has been felt, and I can state from the answers which I have received to 150 of these letters of inquiry that the surgeons are about equally divided in favor of and against the operation.

From the answers and from the literature on the subject I have culled a certain amount of information which has been of value in preparing the article. In addition to this article, I have prepared abstracts of most of the cases in tabulated form, an effort having been made to bring out the most important points in the reports of the different operators.

The most important questions to be discussed in this communication are: 1. What is chronic nephritis? 2. In what does the operation consist that is supposed to cure or relieve it? 3. The arguments pro and con as to this treatment. 4. The symptoms which have led the various surgeons to operate. 5. The results which they have obtained from the procedure.

1. *What is Chronic Nephritis (Bright's Disease)?*—In order to have a true nephritis we must have an inflammation or degeneration of the blood vessels, the interstitial tissue, the glomeruli, or the epithelia lining the tubules of the kidney. Such changes always occur in both kidneys, although they may vary in degree in different organs. This is a fact generally acknowledged by pathologists, and it has been proved by Kummel and Strauss in their investigations by means of ureteral catheterism.

Being desirous of obtaining some information on this point for myself, I looked over the records of 500 autopsies ascribing the deaths of chronic Bright's disease, and in not one instance could it be said positively that the nephritis was unilateral, while in only fourteen did the reports indicate that one organ was more involved than the other.

Many cases of albuminuria and cylindruria are not, properly speaking, Bright's disease, although if the causes that produce them are kept up long enough, chronic nephritis may occur. An instance of this is movable kidney, which is very often associated with these symptoms, as there is a congestion present due to interference in the renal circulation in that side from tension on the renal vessels, augmented perhaps by some back urinary pressure on the kidney on account of the urinary flow being interfered with as well (uro-nephrosis), through kinking of the ureter or some other condition rendering renal retention. In

such cases the albumin, casts, etc., may disappear after nephropexy.

If, as I said before, this disturbance in the circulation and the function of the kidney continue sufficiently long, a secondary nephritis may take place. Nephritis in both kidneys may often be found existing in connection with movable kidney on one side. In such instances nephropexy may improve the patient's condition by arresting the process, although it cannot cure the disease in many cases in which a true nephritis exists and where pathological changes have taken place, to the same degree to which a patient is cured of typhoid fever, pneumonia, or other disease where resolution takes place.

Pousson believes that there is a sympathetic relation between the kidneys as between the eyes, and that an operation on one will frequently relieve the condition existing in the other. This idea is applicable to certain cases of nephritis which have come under my observation in which I found by ureteral catheterism all the evidences of nephritis in both kidneys, and yet some time after nephropexy of one organ the common urine coming from both kidneys showed no evidence of Bright's disease, excepting that the percentage of urea did not come up to the normal in the twenty-four hours' specimen, or, in other words, the renal function was not fully restored.

2. *In What Does the Operation Consist that is Supposed to Cure or Relieve It?*—There have been two kinds of operations advocated. The first consists in the partial decapsulation of one or both kidneys and fastening the denuded surface to the abdominal wall by means of retaining sutures passed through the capsula propria; the second in peeling off the entire capsula propria from the kidney and then replacing the organ in its fatty capsule. The former of these procedures has been in a great measure superseded by the latter, although in my mind it is still a question which is the better of the two. There have also been some modifications of these operations which have consisted principally in some slight additional steps with the object of making them more thorough.

Ether has been principally used, although some of the operators have given chloroform; while Goodfellow, in a most desperate case, operated under spinal anæsthesia and found it most satisfactory. Ferguson, of Chicago, and others have punctured the kidney after decapsulation. In some instances the operators have allowed the incisions to remain open for drainage, and the resulting fistula closed in a few weeks. In very few cases was there much hæmorrhage, although in one of Rockey's (of Portland, Ore.) cases it was

so marked that the organ had to be removed. On the other hand, Wishard, of Indianapolis, states that in a case in which he operated the kidneys were large and pale and so bloodless that when he cut into one purposely it did not bleed. After all operations the patient must be kept quiet for three weeks and treated medically.

At the time of the operation certain observations can be made which may assist in the diagnosis and make the report more valuable. In the first place, the general appearance of the kidney may be noted; this does not furnish us with any accurate knowledge in cases of simple chronic nephritis, as a kidney normal in size may be quite extensively diseased, whereas an enlarged kidney may be comparatively healthy; a small kidney is usually diseased, although macroscopically it may not have that appearance. An examination of the fatty capsule does not give us any idea of the condition of the kidney.

The capsula propria may be easily peeled off or it may be adherent, but the intimate relation of it with the cortex of the kidney does not give us an accurate idea of the extent of the inflammation. There is very often such a close relationship between the capsula propria and the external capsule that they come away adherent to one another, as in a case reported by Dr. Gerrish, of Portland, Me. Ferguson, of Chicago, first introduced the custom of excising portions of renal tissue to facilitate diagnosis, and I agree with him when he remarks: "The pathology, macroscopically observed and handled on the operating table, and a study of the microscopic condition of the organ in a living patient, are of superlative interest and importance." The only scientific procedure to pursue to obtain anything like an accurate knowledge of the *status præsens* of a kidney affected by chronic Bright's disease alone during the operation proper, is to remove a V-shaped piece of the cortical and pyramidal tissues and study it microscopically.

3. *The Arguments in Favor of and Against this Operation.*—The theory of the benefit to be derived from this operation is that the circulation in the kidney is increased by forming an anastomosis with the tissues of the abdominal wall or the fatty capsule, and thus functional activity is materially aided. Physicians go so far as to argue that the kidney after this operation can be compared to the lungs, as in these latter organs the bronchial arteries and the pulmonary anastomose, and some of the return venous blood from the bronchial vein empties into the pulmonary veins. Whether or not this result is obtained in the kidney by decapsulation and opening of new

circulatory channels will be considered later, in concluding.

Edebohls, of New York, states in his article of December 1, 1901, that he has noticed in three cases of operation upon kidneys on which nephropexy was performed some time before the very large and numerous blood vessels running between the kidneys and adjacent tissues. He also stated that he had reached the conclusion that arterial hyperæmization of the kidney was the basic factor underlying the subsequent changes which resulted in a cure or improvement of chronic Bright's disease through reading Ziegler, who says that "when a portion of renal epithelia has been destroyed by a morbid process which spares the interstitial structures, the loss is in general soon made good by regenerative proliferation of the remainder; and if the circulation is adequately maintained, the new epithelia presently become capable of carrying on the secretory function." He holds that the increased and adequately maintained blood supply to the kidney established by his operation leads to this. It is easy to understand that this may be true regarding the reconstruction and regeneration of the renal epithelia, the changes in which happen in so many cases of Bright's disease; but it is a question whether the already existing sclerosed blood vessels usually found in patients of advanced age, the changes in which also contribute to chronic Bright's disease, can be benefited and made to perform their function better, or whether this improvement in circulation is limited only to younger individuals. A similar question may also be asked concerning the regeneration to the normal of the interstitial tissue in interstitial nephritis.

As I have already stated, it is still a question in my mind whether it is better partially to decapsulate the kidneys and make them fast to the abdominal wall or to fully decapsulate them and return them to the fatty capsule. If the capsule is wholly stripped from the kidney and then sutured to the lumbar fascia, it may very quickly become attached again over the inner vertical portion of the organ. Certainly it would appear from the firm adhesions which I have seen between the kidney and the posterior abdominal wall, bleeding freely when cut through or torn, and the scant vascularity observed in the fatty capsule, that the former method may well be the one of choice. Again, it is not well known just how much of the blood supply can be obtained from the fatty capsule, and it has never been my good fortune to notice reports from autopsy records of an estimate of the amount of additional

circulation derived in this way. Edebohls stated in the discussion in Washington that, in a recent autopsy on a patient dying after decapsulation, quite large vessels were found penetrating the renal tissue through the newly formed capsula propria from the fatty capsule.

This statement would not be borne out, however, by the experiments on dogs, as carried out by Dr. Johnson, of San Francisco, which tend to show that the blood supply obtained from the fatty capsule is very meagre. I will quote here from his article. He says: "The renal capsule consists of two layers, the outer of which is the thicker. In decapsulation the outer part alone comes away, leaving the inner lacerated but adherent. After decapsulation, first a thin exudate appears on the surface of the organ, which with the remains of the inner layer of the old capsule becomes a fibrous investment resembling macroscopically the normal capsule of the gland in that it strips readily and becomes more and more firm. In some cases it is thicker, in others it is thinner than the original; generally thicker; always thicker after two months according to Albarán, and Bernard. Up to three and a half months it is simply a fibrous mass, then it is differentiated into two layers. In no case was there a considerable anastomosis between the renal and perirenal blood channels."

These investigations of Dr. Johnson are very interesting to me, for even if the relation of a dog's kidney to the surrounding tissues is not the same as that in man, it is still probable that reconstruction of the capsule is the same; and this reconstruction in three and a half months would probably indicate the renewal of renal tension in the kidney and consequently recurrence of the symptoms. It might also account for the many relapses and deaths after this period.

Until longer periods of observation in such cases have been made I shall continue to think that the reconstructed capsula propria will by its pressure and contraction diminish the blood supply of the kidney, making it less than before the operation, and that the only chance for improvement that the kidney will have will be during the freedom it experiences between the period of decapsulation and the thickening and contraction of the new capsule. It may be here said that there is no doubt that in chronic nephritis tension is relieved by splitting the capsule, but I do not believe that it is necessary to entirely decapsulate the organ to afford relief. Any one who has split the capsule of the kidney over its convexity will remember the gap which develops at this point if the capsule had been holding the organ tightly and this gland had been congested.

M. Mongour is of the opinion that the diminishing of the renal venous tension will increase the arterial tension and thus favor the flow of urine. The splitting of the capsule, and to a certain degree the decapsulation, will also by diminishing the blood tension take the strain off the heart by requiring a diminished amount of work on its part.

Finally, it seems to me that in treating chronic Bright's disease we should watch our cases, and as long as the patient is comfortable and ridding himself of sufficient solids we should treat him in a conservative way by means of diet, waters, medicines, and climate. But if we notice that the process is advancing rapidly, and we fear that the power of the heart will become overtaxed, the time has arrived for operative interference.

4. *The symptoms given by the various surgeons* which have led them to operate have been some of the following:

- (1) Pain in the loin—colicky pain—nephralgia.
- (2) Indigestion — anorexia — nausea — vomiting—diarrhœa.
- (3) Progressive weakness—cold sweats—loss of weight—pallor—anæmia.
- (4) Spots before the eyes—cloudy vision—impaired vision—transient total blindness.
- (5) Cardiac palpitation—tachycardia.
- (6) Dyspnœa.
- (7) Frequent micturition—polyuria—hæmaturia—suppression, partial or complete.
- (8) Headache — malaise — lassitude — dizziness — vertigo — nervousness — insomnia — fainting spells—muscular twitchings—coma—convulsions—delirium—drowsiness—stupor—coma vigil.
- (9) Puffiness of the face—œdema of the eyelids, scrotum, lower extremities, ankles, or feet.
- (10) Anasarca—ascites—hydrothorax—œdema of the lungs.

In speaking of symptoms in this article, it appears to me advisable to confine myself almost entirely to the subjective ones. It is most important to know the condition of the patient and the symptoms of nephritis other than pain in that region before the operation, as pain is not a necessary symptom of Bright's disease. I cannot agree with Ferguson, of Chicago, that all cases of tender floating kidney are affected by interstitial nephritis. Furthermore, I should call a number of the cases reported movable kidney, or other surgical renal conditions complicated by nephritis.

From the meagre details of the urinary report, it is difficult for a reader to form any idea of the severity of the nephritis in certain cases, whereas in others the cures are so rapid one is led to believe that they could not have been true cases of

Bright's disease. In some reports in which no diagnosis was made, I took the liberty, for the sake of statistics, of putting down what seemed the most probable one from the symptoms and urinary examination. In almost all the cases reported there have been some uræmic symptoms and varying degrees of œdema, while in a number of severer cases there has been general anasarca. In the first group of patients, those having some uræmic symptoms and chronic œdema, operation can be resorted to in case medical treatment is of no avail. Coates, of Cleveland, performed the operation as a purely therapeutic measure on a patient with numerous uræmic symptoms in which no remedy had afforded relief; and was rewarded by a good result and accordingly considers decapsulation a good palliative as well as a curative measure. In cases of anasarca, especially if the heart is very bad, it is a question whether one should operate or not. Some say that this is the time when an operation is imperative, but you will see from the histories referred to how dangerous an operation this is, as fully fifty per cent. die, twenty-five per cent. are improved and finally die, while twenty-five per cent. only are either cured or improved. Personally I have never had the courage to operate in such cases.

Among these desperate cases are those of Goodfellow, of San Francisco, Rocky, of Portland, Ore., Primrose, of Toronto, Edebohls and Bull, of New York, and Frazier of San Francisco. In some of them the patients had to be tapped one or more times before the operation, and large quantities of fluid leaked from the tissues afterward; almost all of them died, although some of them improved wonderfully for a few months, the disappearance of the œdema and uræmic symptoms enabling them in some instances to be up and about their work.

In certain of the desperate cases the results are surprisingly good; in these cases the blood supply was derived from the fatty capsule, but the writer doubts if this procedure will give as good a supply permanently as the formation of new arterial channels from the abdominal wall would have done.

Gordon, of Portland, Me., reports a case in which the patient was suffering from heart symptoms, extreme dyspnoea and palpitation, which were relieved within two days after the operation and did not return for many months. In a case with very similar symptoms operated upon by Mackenzie, of Portland, Ore., the patient died suddenly at the end of twenty-four hours.

There is another time when operation is considered imperative in chronic nephritis, and that is when the patient is passing very little urine or none at all. In a case of anuria in which only two ounces of urine was passed in eight days, Whitacre,

of Cincinnati, performed double decapsulation, which was followed by the secretion of twenty-two ounces in the first twenty-four hours, forty-eight ounces in the second, eighty-nine ounces in the third, and so on until the normal amount was established and the patient was restored to perfect health. Mark, of Kansas-City, also resorted to decapsulation of both kidneys in a case of suppression, with pronounced success. On the other hand, Rocky, of Portland, Ore., has reported a case of chronic interstitial nephritis with uræmic symptoms, the patient passing forty ounces of urine daily until the day prior to the operation, when she had complete anuria, for the relief of which he operated, but death from uræmia occurred in twenty-four hours. Freeman, of Denver, operated upon a patient passing a fair amount of urine and in good condition, but who died of suppression eighteen hours later. In one of Gibbon's, (of Scranton), cases, death from suppression occurred five days after decapsulation and fixation of one of the kidneys, and he thinks decapsulation of the other organ might have saved her. From a review of these cases therefore no other conclusion can be drawn than that decapsulation cures anuria in certain cases, but is ineffectual in others, while in some cases it seems to induce it.

The renal disorders which are considered favorable for operation are movable kidney with casts and albumin, movable kidney associated with nephritis, chronic interstitial nephritis, chronic parenchymatous nephritis, and diffuse nephritis. Personally I consider that cases of chronic diffuse nephritis are most unfavorable for this operation, as they result in about seventy-five per cent. mortality. A great many of these patients were operated on *in extremis* when they were suffering from general anasarca. Nearly all of them were suffering from uræmic symptoms, while seventy-five per cent. of them were œdematous. The following remarks will give an idea of the most important factors considered in this paper.

(To be concluded.)

The Old Peninsula General Hospital, of Salisbury, Md., will, it is expected, be finished in a couple of months, by the erection of a modern building of brick and stone, to accommodate fifty patients. Dr. L. C. Freeny is resident physician and superintendent, and Miss Nettie Flanagan, head nurse.

James Robert Wallace, M. D., F. R. C. S., editor of the *Indian Medical Record*, died on September 27th, after several months' suffering from pleurisy. He had recently made a trip to England in search of health, but without success, and since his return to India, on September 4th, had failed rapidly. His loss is deeply felt by a large circle of friends.

THE IMPORTANCE OF THE PHYSICAL EXAMINATION OF THE ABDOMEN AS A ROUTINE PRACTICE IRRESPECTIVE OF WHAT BE THE SYMPTOMS.

By MARK I. KNAPP, M. D.,

NEW YORK.

The physical examination of the abdomen is something of which the general practitioner, as a rule, relieves himself in a perfunctory manner. Usually, it is made, if made at all, but for the psychical effect upon the patient. Only when there seem to be distinct indications does the physician attempt to "explore" the globular vista, with the result which necessarily accompanies insufficient practice, but which the physician is most apt to euphemize by the stereotyped phrase of "nothing palpable"—this as a consoling balm to a pliable conscience. And if the patient persists in not feeling better in spite of the adviser's assurances—well, the physician can then easily draw upon the "established teachings of hysteria" or upon some similar "scientifically established facts." Of course, when the abdominal wall is sufficiently thin and the "something palpable" sufficiently large, the examining hands of the palpator "see" something—but under conditions not so favorable—"reflex actions, idiosyncrasies, autointoxications, perverted metabolism, bacilli, malaria, rheumatism, etc.," then suggest themselves most opportunely. The discoverers of these lastly mentioned subtleties surely deserve speedy canonization!

It is the particular paradox of destiny diligently to search where but little of use can be done, and to omit such search where a good deal could readily be accomplished. Do we, for instance, observe to what extent astronomy now goes, trying to signal to and communicate with Mars, instead of using the same energy to solve problems of better use to us terrestrials, even though we assume that Mars is inhabited by some sort of problematical beings, of which we have no other assurance than the imaginations of a few? So also, unfortunately, is medicine still lying awake of nights to devise suitable ammunition for the complete extermination of the lusty brood of microbes—something at present absolutely misinterpreted, and foisted upon us suffering disciples of Hippocrates by youthful enthusiasts for whom secrets and mysteries have more attraction than unpoetic reality—still warring, instead of following the honorable example of our reverential and more prosaic brothers, the surgeons, and making peace with such microbes, to the everlasting glory of God and the safety of mankind. Altogether, the alimentary canal has been treated all these centuries with not hidden disdain. How studious are we to determine the size and the loca-

tion of a cavity in the lungs, even to the fraction of a centimetre; how elated are we—at the autopsy table, to be sure—if we have properly interpreted the several pneumonic sounds we have heard; how punctilious are we in differentiating the size of the râles—of what practical benefit are these? Surely, I do not mean to aver that there is too much theory concerning the organs just cited. But I do mean to say that, so far, nothing more substantial has been achieved than the evolving of peculiarly flighty theories, one superseding the other in quick succession. What a maze of pernicious doctrines! Not so, however, with the alimentary canal. Were the medical profession better acquainted with the alimentary canal, expressions such as "reflexes, neurasthenia," etc., would soon see their last days of grace.

My intention in this article is simply to direct the attention of the medical profession to the absolute need of a physical examination of the abdomen in every case, no matter what or how insignificant are the symptoms. The correctness of this contention I shall illustrate by the following cases:

CASE I.—A woman, fifty-two years of age, came to the Augusta Hospital, Berlin, in 1900, with the request that, if possible, her left kidney be replaced. She knew of this displaced kidney only because the physician she consulted for a little dyspepsia found it out. She looked perfectly well otherwise, had no cachexia, and gave no symptoms other than those of a little dyspepsia. This supposedly displaced left kidney proved to be a cancer of the anterior wall of the stomach for which she was operated on.

CASE II.—A young woman, twenty-eight years of age, the wife of a patient of mine whom I treated and cured of organacidia gastrica. The fact that this patient, the husband, had suffered for several years, had consulted all the best known men without success, and that I cured him, made him insist upon my seeing his wife also, who was supposed to suffer from prolapse of the uterus. My pleadings that I confine myself entirely to gastrointestinal diseases availed me nothing; I had to see his wife. True, I examined her *per vaginam*, but found nothing more than the usual laceration of the cervix uteri and a little laceration of the perineum. Her complaint was that she could walk no more than the distance of a block or two. She then felt very tired and had a sensation of bearing down in the abdomen. Her life was burdensome. Being born a woman she naturally had a uterus and ovaries which performed their expected function satisfactorily, she having given birth to two children, born in lawful wedlock. But we have some gynecologists, according to one great authority, for whom evidently a womb and ovaries exist only for the purpose of exercising their skill, not so much with a view of curing such obnoxious appendages as rather skillfully (?) to remove them after repeated "treatments." I am not a gynecologist, consequently those preservatives of mankind had no terrors for me. After satisfying myself that there was no cause for alarm in her sexual apparatus I put the patient upon the couch for abdominal palpation. The cause of the misery

of that young and fair patient was very soon discovered and very speedily cured. She had floating kidneys. A well fitting abdominal supporter worked the miracle.

CASE III.—This case is very interesting. Miss B. F., twenty-one years of age, came to my class with her mother, November, 1901. As she entered she at once engaged my attention. I observed her intently for about two or three minutes and then instructed her to come to my office for a thorough examination. Both mother and daughter looked surprised as I had told them to come to my office and had not at all given them a chance to say anything. Finally, the mother summed up courage to remonstrate, saying: "How do you know, doctor? I have not yet told you anything." Upon this I replied, that her daughter seemed to suffer very much from heart trouble, but that this was not all. The making of a correct diagnosis without any question whatsoever naturally impressed both mother and daughter very much, and they both came the following morning, the daughter ready for a test breakfast. The making of a diagnosis in this case of advanced heart disease without asking any questions or even permitting the patient to say anything was nothing at all marvellous; only a little observation was necessary. There was marked cyanosis, visible pulsation of the carotids, and no abnormal respiration; consequently the diagnosis of heart disease was "written" on the patient. The physical examination of the patient preceded the eating of the test breakfast. Her heart was much dilated, and there were mitral and aortic stenosis and insufficiency. The patient then stripped entirely and stood perfectly nude before me and her mother. Standing away a little distance from, and in front and to the right of, the patient I noticed a certain shadow on the patient's abdomen, situated on the right side of the median line, running down from the umbilicus. I then placed the patient on the couch for palpation. The shadow observed corresponded to a tumor, quite superficial, somewhat movable, not adherent to the skin, hard in consistency. The tumor began at the level of the umbilicus, on the right side of the median line and touching the median line; the long axis of the tumor was in a line drawn from the navel to the anterior superior spine of the crest of the ilium. The tumor was 10 cm. long, 7 cm. broad, oval in shape, the circumference well defined. It moved with the respiration. There was no difference in the consistency of the tumor anywhere, it was one solid, hard mass. By putting the patient on the right side the tumor somewhat shifted according to the laws of gravity and its outline was then better felt. This palpatory examination consumed pretty near three quarters of an hour, to the surprise of both the patient and her mother, who could not understand why I was busying myself so long with some region of her abdomen that *never* gave her any trouble. My diagnosis of the tumor was tumor of the omentum. I sent the patient to St. Mark's Hospital, where she came under the treatment of Dr. Carl Beck. Repeated x ray examinations showed the tumor to be probably a stony tumor of the head of the pancreas. Whether or not the omentum was involved Dr. Beck thought it better not to answer. The patient died in the hospital, an autopsy being refused.

CASE IV.—Mrs. C. M., about forty-five years of age, Irish, living in Brooklyn. I was called to see her in consultation, February 8, 1903. The attending physician, who had succeeded another physician, had treated her for some four weeks. This patient fell against a chair and hurt her stomach in June, 1902. Since that time she had felt bad. The attending physician had treated her for gastritis, and never thought of the necessity of a physical examination of the abdomen. The patient had repeatedly vomited dark brown matter, and rectal alimentation had already been administered. I found a large tumor involving the pylorus. Gastroenterostomy was performed on the patient by Dr. Erdman. An excised, tumefied gland showed adenocarcinoma.

CASE V.—Mrs. B. K., sixty-five years of age, German. Consulted me on April 20, 1903, and said she had always felt well; appetite good. Four years ago she had had some "rheumatic pains" in her legs and some eruption which itched greatly (urticaria?). She was then forbidden to eat bananas and strawberries. Began to feel bad only eight days ago, complaining of fulness and gnawing sensation before eating. Once last week, and this morning, she had had greenish stools. But, after all, she came to consult only about her dryness and anorexia, saying that otherwise she felt all right. Palpation gave this: Transversely across the abdomen with the lower level at the umbilicus 10 cm. to either side of the median line and extending 7 cm. upward, was a hard, uneven tumor, only slightly movable. The exact contour of the tumor was hard to ascertain as it seemed to merge upward and on the right side into other structures. There was dulness over the tumor but resonance all around it, save where it merged under the left costal arch. The tumor was not adherent to the skin; it proved to be a tumor of the stomach.

CASE VI.—Mr. B., forty-three years of age, upholsterer, served in the Austrian army. History of moderate alcoholism. Had dyspepsia for several years accompanied by cramps and distention of the abdomen. On examination the much enlarged spleen was found adherent in the left iliac fossa. The patient told me that his abdomen was never bared for anything else than morphine injections.

CASE VII.—Mrs. S. A., forty-three years of age, born in New York. This highly interesting case was reported by me in the *New York Medical Journal*, May 23, 1903, as one of atony of the duodenum. The patient had suffered from "indigestion" for three years and the attending physician had never imagined the necessity for a physical examination of the abdomen. A tumor of the jejunum was excised.

Without commenting on the cases, one thing is sure, that the tumors should have been discovered long before. From the fact that the tumors had reached such large size in Cases I, II, IV, V, and VII, we must infer that their growth and development had taken up a good long while, possibly years. What influence the trauma had in Case IV upon the growth or the development of the tumor, it is hard to say. It certainly stands to reason that the patient stands better chances of recovery the earlier the malady is recognized.

These cases show two things: First, that abdominal examination should be practised much more than it is at present; and secondly, that tumors, cancer included, can grow to a large size without arousing suspicion or giving symptoms.

In the physical examination of the abdomen inspection and palpation are of chief importance, especially inspection. Train your eyes and you can see anything "seeable." Professor Osler, of Baltimore, wrote to me after reading my article on *The Physical Examination of the Stomach* (*New York Medical Journal*, March 23, 1901): "In the examination of the stomach I think you do not lay nearly stress enough upon the inspection, which, in very many cases, gives, I think, important information. In our first 150 cases of cancer of the stomach reported in the monograph by Dr. McCrae and me it is remarkable in how many instances the tumor was visible." In a subsequent letter Professor Osler writes me: "I am a bit of a crank myself on inspection of the stomach." Who thinks Professor Osler to be a crank? The fact is, that but few have practised and can "see." Dr. A. L. Stockton, of Buffalo, in his translation of Riegel's masterful book on *Diseases of the Stomach*, edition of 1903, writes concurringly, on page 33, on Knapp's methods of inspection. This method was described by me in the *New York Medical Journal*, February 15, 1902, and in the *Deutsche medizinische Wochenschrift*, May 1, 1902. To this I will add now that, not only can tumors of the abdomen very often be seen, not only can the stomach curvatures (the lesser in gastropnoxis) be seen in every case without exception and without reference to the adiposity of the patient, but we can see as well the contours of the colon. I have repeatedly correctly demonstrated, by vision only, the outlines of the liver of the spleen—when enlarged—and of other organs.

For the purpose of inspection the patient's abdomen is bared, and he either stands in front of the examiner or lies down upon an examining table. Inspection is best practised when standing a certain distance away from the patient. If the patient is standing, the examiner is in front and somewhat to the side of the patient, as by looking obliquely upon the patient we can readily see even the slightest shadows that may be cast by some structure protruding upon the level of the abdominal wall from underneath it. When the patient is in the recumbent position the physician stands either at the shoulder or at either hip of the patient, brings his eye to the level of the patient's abdomen, and watches abdominal respiration. He will then perceive a certain fine line moving under the skin of the abdomen with the respiration, which line he will learn to recognize as being produced by the curvatures of the stomach.

However, I must admit that the practised eye need not assume this position, but can see "off hand." As already said, the curvatures can be seen in every person without regard to his adiposity. But, for the beginner, it is best to practise first on a thin patient; when once the seeing of the curvatures is mastered, the thickness of the abdominal wall makes no difference. The line corresponding to the greater curvature is marked with ink. We can now corroborate the correctness of this line by several methods; by plain percussion, or by percussion preceded by inflation of the stomach, or inflation of the colon. For the inflation of the stomach either ordinary air is used by means of a double bulb, or CO₂ is produced within the stomach. Half a teaspoonful each of sodium bicarbonate and tartaric acid are taken separately in about four ounces of water, in succession. This is sufficient to effect the inflation of the ordinary stomach. When this quantity is insufficient to cause inflation, one of two conditions is present. Either there is insufficiency of the pylorus, the formed gas passing right on into the intestine, or there is dilatation of the stomach. I have seen both conditions. After inflation of the stomach the index and middle fingers, in absolutely close apposition, are so placed that the line marked on the abdomen comes between both fingers. Now, percussion over each finger will elicit different sounds of resonance. Extremely light percussion must be practised. Here, the stethoscope is of great advantage. The distal part of the stethoscope can be held between the little and ring fingers of the left hand, while the middle and index fingers of the same hand are used to percuss over them. Instead of the stomach, the colon can be inflated, and the difference in resonance between colon and stomach can then be appreciated.

Palpation of the abdomen is a most subtle art and can be acquired only by constant practice. Nevertheless, it can be acquired by every physician. One need not necessarily be a direct descendant of Jupiter or the first cousin of Venus to be enabled to "see with the hands." Palpation is not a "gift." Constant, unremitting practice makes the virtuoso. To have had the privilege of expert guidance is indeed very fortunate. Palpation cannot be taught by dead letter. The general rule for palpation is that the palpating fingers must be perfectly relaxed; they must not be stretched, they must not be cold, and must not press down hard. Just lay your hands upon the abdomen, very gently, and allow them to be moved up and down with the respiration. It is remarkable how easily we can then feel; the thin edge of the left lobe of the liver, the greater curvature of the empty stomach, are thus readily and easily perceived. For the palpation of deeper struc-

tures some pressure will be necessary, but never must this mean brute force. Gentleness, extreme gentleness, is necessary for palpating the abdomen. Cold hands and rudeness in handling the patient will cause tension of the abdominal muscles, and in such a condition attempts at palpation will prove fruitless. The position of the patient differs in accordance with the structure we are to palpate. The recumbent posture, with thighs slightly abducted and knees somewhat flexed, is the most usual position of the patient for palpation. For the better palpation of the organs and structures of the right side the patient is put on the left side, and vice versa. But the knee-elbow position also, and the patient standing with knees and thighs flexed, may in certain cases be resorted to with advantage. When the patient is in the recumbent position the palpator must invariably sit down at either side of the patient. With the patient in the recumbent position the palpator must never stand. The palpator sits, at either the right or left side of the patient, rests his respective forearm, gently, upon the patient, the hand and forearm forming no angle with one another. The more central to the body of the patient is our own body the better and the longer can we palpate without tiring. For that reason I very often sit between the legs of the patient with one of the patient's legs resting on my thighs. There may be some ethical drawback to such palpation when the patient is a female, though I have not yet found any one object. Palpation is not only an art, but a really very laborious task, and for that reason the last described position will be appreciated by the palpator. For the palpation of the kidneys both hands are employed. One hand is on the abdomen and the other behind the back of the patient, the two hands being opposite one another. The hand behind the patient attempts to bring the structure sought toward us, forward, underneath the palpating hand. In nephroptosis, especially of the first and second degrees, the hand behind the patient may feel the kidneys better than the palpating hand in front. The liver and gall bladder move with respiration, consequently tumors of these organs likewise move with respiration; but this rule does not always hold good. Again, the abdominal tension and relaxation produced by the respiration will also produce movements of any tumor which is not tied down by adhesions. The tension of some sets of muscle fibres is likely to mislead. It is, then, best to palpate the corresponding point of the other half of the abdomen with the other hand, simultaneously, when a mistake will become apparent. Especially are we apt to be misled by the transversalis muscle. As the fibres of this muscle run transversely, and as we naturally palpate in the longitudinal axis of

the abdomen, moving the palpating fingers alternately up and down, we strike the fibres of the transversalis at right angles. Our fingers then feel the edges of these muscle fibres and, unless we are careful, we may mistake the edge of such muscle fibre for the edge of some resisting organ.

After feeling a tumor the next questions are: The diagnosis—as to this tumor being only a prolapsed organ or a real tumor; and, if a tumor, to what organ it belongs, is it freely movable or not? etc. However, these questions cannot be discussed here.

136 EAST SEVENTY-EIGHTH STREET.

DEEP BREATHING.*

By RICHARD COLE NEWTON, M. D.,

MONTCLAIR, N. J.

The great Napoleon preferred a man with wide nostrils, presumably because of his better breathing capacity. It is because I believe that few people breathe as they ought, and because of the great importance of the matter, that I ask your attention to the subject of deep breathing.

Perhaps the best way to approach this subject is to define what is meant by the term "deep breathing." I take it to mean voluntary and full inflation of the lungs, carried to the fullest extent, slowly and regularly performed, and generally accompanied by movements of the arms, chest, and abdominal walls. It may also be performed by the aid of various devices and instruments, such as spirometers, inhalers, respirators, etc., some of which, are efficient and convenient. Its object is to inflate fully and bring into activity the whole volume of the lungs, both the parts commonly used, and those that in shallow or ordinary breathing are unused; and by exercise to increase the capacity of the lungs and improve their efficiency.

By this increase of respiratory capacity, the action of the heart and blood vessels will be strengthened and the oxygenation of the blood will be increased, with the result that all the tissues will be better nourished, metabolism will be better carried on, and secretion and elimination will be more perfectly accomplished. Every bodily function will be better performed, and in none will the improvement be more manifest than in digestion and the assimilation of food.

The quantity of air which a man inhales and exhales in an ordinary act of inspiration and expiration is about 500 c.c., while the complementary air, or the amount which can be inspired after an ordinary inspiration, is 1,500 c.c., and the

* Read before the American Climatological Association at the Sixth Triennial Session of the Congress of American Physicians and Surgeons, held at Washington, D. C., May 12, 13 and 14, 1903.

reserve air, or the amount which can be expired after an ordinary expiration, is from 1,240 to 1,800 c.c. (1).

In fact our breathing apparatus is said to be one-fourth larger than necessary, for the ordinary requirements of life (2), and only careful and systematic training will bring the entire volume of the lungs into use.

Harry Campbell (3) says: "Another advantage much overlooked attaches to good pulmonary development, i.e., the facility which large lungs afford to the circulation through them. The greater the vascular capacity of these organs, the less is the work thrown on the right heart. Now all the diseases of the left heart, but especially of the mitral orifice, tend to cast extra work on the right heart. Hence the great importance in all cardiac diseases of securing the maximum development of the lungs, and in no way can this be more effectually done than by respiratory exercises systematically carried out. In this manner we can in a short time increase the pulmonary capacity to a marked degree. The respiratory movements favor the circulation of the blood. With every inspiration blood is sucked into the right heart while the pulmonary flow is at the same time quickened. They further aid the lymphatic circulation, pumping the lymph from the peritoneal cavity into the pleura and from the latter and from the pericardium into their respective lymphatics, and hurrying on the lymph in this way. Such aids to the lymph flow are of the greatest importance in many diseases, but above all in heart disease. In various forms of dyspepsia, as in torpid liver, I have found the greatest benefit from their use, from the pressing and in some cases dislocating the abdominal viscera."

Braum (6) has shown how numerous are the arrangements connected with the fasciæ for promoting the venous currents by means of the negative pressure resulting from the movements of the body. Farquharson (13) states in his work on ptomaines that every arrest or detention of the respiratory functions is followed by the retention of toxic physiological débris in the body, and points out that the so called pretuberculous symptoms are such as might be expected from self intoxication caused by imperfect respiration.

Jaret (4) has shown that altitude produces increased hæmoglobin and an increased number of red blood corpuscles, with decrease of nitrogen in the secretions. In animals he has found that a reduction of the atmospheric pressure equivalent to 100 mm. alone, apart from any other factor of mountain climate, was sufficient to change the composition of the blood in the same way as is observed after a trip to the mountains. The total increase in the hæmo-

globin was twenty per cent. The dryness, cold, and other features of high altitude, tested separately, had no effect upon the composition of the blood. The amount of nitrogen retained by the organism was much more than could have been required for the new formation of the elements of the blood. This suggests that the action of altitude is not restricted to its effect upon the composition of the blood, but that it may induce a partial protoplasmic regeneration throughout the organism, conferring new vitality and resisting power on other elements beside the blood. In other words, if the inspired air is rarified so that the lungs must expand more completely in order to take in enough air to oxygenate the blood, not only are the hæmoglobin and the number of erythrocytes increased, but the amount of nitrogen taken into the tissues is augmented and a general condition of increased metabolism induced.

The result of these laboratory experiments accords well with clinical experience.

One writer (5) has suggested that mankind would be less liable to consumption if the atmosphere breathed contained less rather than more oxygen. Unquestionably the principal advantage in nose breathing over mouth breathing is that the former requires more effort on the part of the lungs, and this tends, as Campbell has shown, to lighten the work of the heart (*a*) mechanically, by helping along the movement of the blood; and (*b*) by increasing its oxygenation. This latter function is augmented by the increased lung expansion in nose breathing; the greater effort required draws more air into the alveoli and distends these spaces more fully, and so exposes to the inspired air a larger area of capillaries. As proof of this statement witness the deleterious effect of mouth breathing on athletic exercises. It is well known that a runner, for instance, must breathe through his nose, although breathing through the mouth is much easier during strenuous exertion; but he will be "winded" much sooner with his mouth open, than if he keeps it shut.

Ingals (16) says "By a few deep inspirations the healthy individual who has exhausted his breath will find that he speedily recovers it, whereas by the usual respiratory efforts he will pant for several minutes before he can obtain relief." In other words, it is deep, full, and slow breathing which properly aerates the blood; not quick, panting, and shallow respirations.

It is not the purpose of this paper to take up the physiology or the therapeutic value of bodily exercise in general, although it is impossible to discuss deep breathing without some reference to general muscular exercise. What the writer fondly hopes

is to provoke some general discussion on this important subject and himself to learn from the opinions of others more about a question that is not yet well understood and is too little spoken of by medical teachers and writers generally. After a conversation with a physical trainer and a so called physical culturist of national repute, the writer can not avoid the conviction that the profession has much to learn in reference to these matters, and not only that, but the corollary is equally obvious that if we are to be prepared to meet and answer the claims and pretensions of physical culturists and osteopaths, we must undertake all manner of investigation into every aspect of physical development, massage, pulmonary gymnastics, and general and special exercises and movements. Hartwell (9) says: "It seems a misfortune or worse that the profession is as yet unprepared or unwilling to speak with authority on the uses and abuses of exercise." Perhaps nothing is more striking than the more or less contemptuous way in which physical trainers, etc., speak of the medical profession, and that this contempt is partially at least deserved, certain remarks of Professor Hollis, of Harvard, in a paper on College Athletics seem to prove. Speaking of the employment of a professional trainer, the professor says: "The professional seldom possesses the ideals which should prevail in a college atmosphere. His introduction probably springs from the difficulty of getting practical advice from the doctors. Their experience has usually been with sick men. When confronted with the problem of taking care of well men, they seem to fail."

So far as my experience has gone, the strictures of Professor Hollis are little, if any, too severe, and it is because I believe that the time has now come when we must arise to the situation and must be able to inform our patients whether they should exercise or not, and if so, should be able to instruct them fully as to the best and safest form of exercise, that I have ventured to take up so much time with a paper of this sort. It is impossible for me to try and cover the whole ground, and what follows is meant to be rather suggestive than conclusive.

I believe that you will all admit that deep breathing is, for a person in health, safe and desirable. But it seems to me that the fact that few people breathe properly is too little known to either the profession, or the laity. Our own Otis (9) says that after examining 1,200-1,500 chests he has found very few individuals who breathe fully and properly. Minor says not one in twenty (10); Ingals (11) observes, "It is a matter of surprise to those who have given the subject thought to find how superficially many people breathe, and how little they know of this most important physiologic process." And one of the physical culturists spoken

of above, says that after measuring the lung capacity in 20,000 persons, he finds that not one per cent. of them has strong lungs and breathes fully. He also asserts that consumption is the athlete's disease, and that the majority of athletes die of it, and alleges that he has a list of two hundred athletes, prize fighters, etc., who have succumbed to the disease. He further asserts that this loss of life is entirely needless and is due to a failure to develop the respiratory apparatus commensurate with the voluntary muscles. Had the balance between these functions been maintained, he argues that the health would not have suffered but, on the contrary, would have been greatly benefited by the muscular training. After a prolonged conversation with the gentleman I am convinced not only of his honesty, but of his intelligence. In corroboration of his position I may quote Stecker, who says (30) "an inherited predisposition to phthisis may be suspected when the ability for respiration is reduced out of proportion to the general muscular power of the individual."

Practically, the subject naturally divides itself into two divisions, the curative and the prophylactic uses of deep breathing. I will not say a great deal under the first head, hoping that men who have had far more experience than I will give us their views freely. In looking over the recent journals one finds many references to deepbreathing, but in the text books which I consulted, very little was said. I only noted one reference in a textbook and that was in Professor Gilman Thompson's *Practical Medicine* (P. 275). The general opinion of the profession seems to be that full inflation of the lungs and expansion of the chest is a good thing for consumptives, except when fever or hæmorrhage is present; although there are writers who advocate it all through the treatment, without reference to fever, and say that it does no harm. A number assert that the chief advantage which comes from inhalations of medicated vapors is due to the deep breathing which they cause. Some advise inhalations very moderately and carefully made, while others are less particular as to the methods to be observed. Certainly it would be an excellent thing if this society could take an authoritative position on this important question and advise the profession whether or not deep breathing should be practised by consumptives generally, and if so, lay down positive rules as to the method of its application and the limitations to be observed. The rule that any patient with a fever should keep quiet is well enough known to the profession, and even to the laity, but, as I have said above, very little seems to be generally known in regard to the uses and abuses of deep breathing.

The Nordrach system of treatment for consump-

tion, as opposed to the Dettweiler system, advocates much exercise in addition to fresh air and super-alimentation; whereas, the latter system enjoins rest in the open air and superalimentation. Undoubtedly, deep breathing may do harm if injudiciously employed. If it were not capable of injurious application, it would stand unique amongst all medicaments and therapeutic devices known to our art. In addition to its use in consumption, various references are to be noted advocating deep breathing in other diseased conditions, as e.g., Jacobi (15), Musser (16), Vergely (28), Talma, of Utrecht (14), strongly advocate its regular employment in asthma, pointing out that a marked characteristic of asthmatics is their shallow breathing. Daland (15) speaks of it as an adjuvant in the successful treatment of heart disease. Anders (17) says that "the abnormal respiratory conditions in sufferers from obesity have not been sufficiently studied. Their pathogenesis is not clear, but the mechanical embarrassment from the deposition of fat throughout the body will largely account for them." He states that he has found the average chest expansion in obese subjects to be less than 2.5 inches, and says it is evident that such interference with lung expansion must excite dyspnoea after muscular exercise, or over distention of the stomach and even during recumbency. Unquestionably, here is another vicious physiological circle. Indolent and shallow breathing cause suboxidation with resulting obesity, and obesity is a prominent cause of dyspnoea on exertion. This latter condition fosters inactivity both mental and bodily, and so the whole economy suffers from malassimilation, delayed metabolism, etc. Certain subjects suffering from some inflammatory or obstructive conditions of the nose, throat, or lungs, have been observed to become obese, as sufficient oxygen cannot be inspired to aerate properly the blood and burn up the waste which it contains, and consequently fat accumulates in the tissues (18).

Diabetes (21), another disease of suboxidation ought to be largely benefited by deep breathing. Although I have found a number of references to the benefit of muscular exercise in this disease, I have found no special reference to the effect of deep breathing upon it. It is a noteworthy fact in this connection that twenty-five per cent. of diabetics die of phthisis pulmonalis (27). In cholelithiasis Dr. Robert Gasser (19) recommends regular deep breathing exercises. He denies the infective origin of gall stones and deprecates operation, insisting that a hygienic method of life will prevent their formation.

Douty (22) proves that syphilis as well as tuberculosis is amenable to open air treatment and ex-

ercise, and this accords with the opinion of Professor George H. Fox, of New York, who said in the writer's hearing, that the proper way to handle a syphilitic was to train him as if for a prize fight.

Dr. Ingersoll reminds us that spinal curvature is also a diseased condition which can be prevented if treated in its first stage by gymnastic and deep breathing exercises, but upon which medicine, will have no effect.

As to the prophylactic aspect of pulmonary gymnastics, every authority that I have been able to consult who takes the pains to consider the prophylaxis of phthisis recommends it. Knopf urges that every child should be taught deep breathing as soon as he is strong enough and sufficiently intelligent to learn. It is needless to add that I entirely agree with him. Deep breathing seems to be pretty thoroughly taught now as an essential part of many, if not all, good gymnastic courses, but so far as it is taught in schools, it seems to amount to little, and to have little if any permanent effect upon the scholars.

In a recent editorial in the *Lancet* (20) the ground is taken that no system of education is complete that does not educate the body, as well and as thoroughly as it does the mind. Those educators who have given the subject sufficient thought are largely willing to acknowledge the justice of the position, but no adequate means for carrying out these suggestions have so far been adopted in any part of the United States, at least so far as I have been able to learn. Some steps have been taken in this direction, but not much good will be accomplished until thoroughly trained medical men shall have charge, not only of the hygiene of the schools, but of the physical education of every scholar, and regular examinations of physique, vital capacity, lung development, etc., shall be held; and, as is now done in some of the high and normal schools, the pupil must pass in these important branches before he or she shall be promoted, just as he or she must now pass in their studies. In other words, in proper physiological education, the bodily functions shall be educated as being equally important, or more so, to the child's future well being than the mental.

You will tell me that athletic sports are increasing and doing much good. So they are! But these sports fail to benefit those most needing physical education, and they are sometimes hurtful, and cannot be relied upon to develop all the bodily functions symmetrically. They are not begun early enough to benefit the little children, and would not be safe perhaps for them. They do not affect the large masses of girls and boys that we especially wish to build up and fortify against consumption and other

illnesses, and to fit for their work in life. Let us strike for a thorough, rational, and properly carried out physical education. Hitchcock (29) has said, "There is no doubt that if as much care were bestowed on our young in seeing that this particular part (the thorax) was developed with that care that the brain receives, tuberculosis would almost disappear."

Scheidt (23) says that "the foundations for a healthful and useful life are laid between the seventh and fifteenth years, and never afterwards." McLean says (24) after having described a system of pulmonary gymnastics, "If the phthisical patient would live and be healthy, he *must work for it* in the way I have indicated or by some similar method, or he will miserably perish, notwithstanding he may swallow all the drugs in the dispensatory and be injected with all the serums and specifics so called, which are now obtainable."

Dr. Von Weissmayer says (26), "In the education of the people lies the great hope of prophylaxis." M. Georges Demery says (25), "The essential of physical education is voluntary motion."

How then shall we sum up this well meant, albeit somewhat disjointed paper? I offer the following conclusions:

(1) Deep breathing is essential to good health, and is in many cases a valuable therapeutic measure.

(2) Its importance is not at all generally appreciated.

(3) It should be a part of every child's education.

(4) It is especially indicated for backward and sickly children.

(5) The profession owes it to itself to study more deeply this vital question and to be able to instruct the laity fully upon all its bearings.

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SOME POINTS IN THE TREATMENT OF HIP JOINT DISEASE.*

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I wish only to discuss very briefly in this paper two or three points in the treatment of coxitis.

In the various volumes of the *Transactions of the Orthopaedic Association* the subject of the treatment of hip joint disease has been very thoroughly discussed. Not only the relative merits of excision, fixation, and traction, but also the value of the various splints and their modifications in producing the desired ends, have been thoroughly gone into. I believe that it makes very little difference whether we use a Thomas splint, a long traction splint with a good fitting hip band, or other modifications, provided the appliance is accurately adjusted and the patient properly observed.

In nearly all cases the disease yields to any of these methods of treatment (so far as acute symp-

* Read before American Orthopaedic Association, Washington D. C., May 13, 1903.

toms are concerned), especially if they are instituted early, although the ultimate result may be attended with a varying amount of deformity. But whichever method we use, we expect in a short time that the spasm will diminish, the pain, if present, cease, and the power improve.

One of the questions that confronts the writer after the relief of the acute or apparently active symptoms is: How long should this treatment be continued without allowing some functional use of the affected member?

Dr. Henry Ling Taylor, in a paper read before this association on *The Retardation of Growth as a Cause of Shortening after Coxitis*, arrives at the following conclusion:

The amount of retardation of growth appears to bear a distinct relation to the amount and duration of the restraint or disability.

My attention was very forcibly called to the relation that the lack of functional use bears to retardation of growth and disability following coxitis by the following case:

A girl, aged fourteen years, was admitted to St. Luke's Hospital, Denver, and came under my care. She had recovered from double hip joint disease, with marked adduction of both legs and flexion of the right. The legs were crossed with bony ankylosis at the left hip, but with some motion remaining in the right. There was no displacement of the head of the bone from the acetabulum on either side; neither did suppuration occur in either joint. There was marked muscular atrophy above and below the knee of the right and two inches of actual shortening as compared with the left. I performed subtrochanteric osteotomy on the left femur and tenotomy of the adductors of the right side, and brought both legs into good positions. I found later that not only was the right leg shorter and the muscles atrophied, but the power was very much reduced. On account of the flexion of the right femur she was unable to make much use of the right leg in locomotion. While bending forward she could reach the floor with the toes, but it remained pendent most of the time. She bore her weight upon the left leg with the assistance of a crutch as soon as the pain, tenderness, and disability were relieved, which was in about one year.

The mechanical treatment was of short duration, inefficient, and only applied to the right leg. She had been walking with a crutch for about five years.

It will be observed that the right leg, which she brought into constant use, on account of position, directly after the subsidence of the acute symptoms, is a strong, well developed member with bony ankylosis; while the left, which has been practically at rest, from its flexed position, and deprived of functional use is atrophied, short and weak, although considerable motion is preserved.

We have here two tuberculous joints, where many of the elements we have to consider in these cases are identical. The early symptoms, environment, and general condition are the same. The only difference in the management of the joints was that one was brought into use comparatively early, while the other remained more nearly at rest for a long period.

This case seems to illustrate the importance of a certain amount of functional use as early as practicable, and perhaps to corroborate the correctness of a principle, laid down by Professor Lorenz, in the treatment of tuberculous disease of joints in children. He advocates weight bearing after the subsidence of pain and tenderness, but continues to immobilize the joint for a long time, and aims to procure bony ankylosis in a good position. I have never allowed a complete weight bearing so early as he suggests, but have used a protective brace that removes the greater portion of joint pressure, but permits the use of muscles and some motion, if it does not increase the spasm.

It may be said in criticism of the position taken in this paper by the writer that a recurrence of active symptoms is likely to occur if complete fixation and protection is discontinued soon after the subsidence of active symptoms. It is true, a relapse will take place in a certain number of cases, but a relapse will also take place, many times, when immobilization has been kept up for several years. And when we come to consider the likelihood of retarded growth and the weakness that is likely to follow continued lack of function, would it not be more rational to substitute massage of the muscles and a protected use of the joint after the subsidence of the active symptoms, the latter usually extending from a few months to a year? In fact, my first instructions, by the late Dr. Charles Fayette Taylor, on the management of the treatment of coxitis, were in accordance with these principles. If I remember correctly his plan was to use a long traction splint for a few months, or until the acute symptoms were relieved, particularly until the spasm of the joint was diminished, and then to substitute a brace, with motion at the knee, that protected the hip joint but allowed a certain amount of functional use. If he found that the spasm increased from this change he returned for a while to the original treatment.

While I gradually abandoned this plan of treatment for prolonged fixation and disuse, I have, during the last few years, returned to it with some modification and feel that in the end it gives the best functional results.

Another point that I wish briefly to consider

is the importance of the hygienic and constitutional treatment. I believe these measures exert a powerful influence in the control of this disease. I fully agree with the sentiments expressed by our fellow member, Dr. Galloway, in his paper on this subject at the last meeting of this association. The general treatment has undoubtedly been neglected in our enthusiasm over the methods for local treatment.

We should also remember the proneness of these patients to develop pulmonary tuberculosis at any time. This would be a serious complication, and it is an important reason for placing these cases under the most favorable conditions possible. The more favorable the surroundings the less likely are active symptoms or suppuration to develop. We all know the influence of sunshine, fresh air, and increased nutrition on pulmonary tuberculosis. The effect on joint tuberculosis is equally beneficial.

Relapses take place many times, or dissemination of tubercle with development of tuberculosis in other organs, without regard to the time the joint has been immobilized. Therefore, it becomes a serious question whether we have done our duty in regard to trying to overcome this inherited tendency or weakness which favors the development of the specific organism. Many suffer from non-hygienic surroundings. We should urge that as much time as possible be spent in the open air and sunshine, and when indoors the time should be spent in well ventilated rooms, and at night sleep should be taken with open windows, regardless of the temperature. The diet is also an important factor in the treatment of these cases; children, particularly, are very careless about taking the proper amount of food, and unless this matter is looked after very carefully they will not take the proper amount of nutrition. While no absolute rule can be given for diet on account of the idiosyncrasies and complications, yet, in a general way, it may be said that meat, fats, raw eggs, and milk should be taken freely. I think an excellent plan in these cases, as well as in other forms of tuberculosis, is to take three substantial meals a day, each meal to be followed in a short time by a glass of milk and a raw egg, the latter not taking the place of the regular meal, but simply supplementing it. Gastric disturbance will not occur so often from this method of increased feeding as it will when the extra food is taken midway between meals.

When anæmia is present, in addition we must be persistent with the use of hæmoglobin or iron and arsenic. I feel confident that if the general rules observed in the treatment of pulmonary tuberculosis as regards hygiene, diet, and general

management were applied to joint tuberculosis, we should be able in a measure to overcome the inherited or acquired weakness that favors the development of the specific organism and its subsequent effect upon the joint. If we work along these lines a little more, I believe it will not be found necessary or advisable to continue so long our restrictive measure in the joint, but will permit of earlier functional use and thereby prevent a good deal of the retarded growth and weakness that are so frequently observed.

These remarks are not intended as the slightest reflection on the great importance of local treatment in coxitis, but are simply suggested as adjuncts in obtaining the desired ends. These suggestions apply equally to other tuberculous joints, but I have used the hip joint for an illustration as being, perhaps, a joint where the disease is more serious and where treatment is continued longer, and where we are more likely to get retarded growth and weakness. Perhaps my cases are observed under more favorable conditions than the average, on account of the favorable climatic condition of the Rocky Mountain region, and consequently there might be less danger in withdrawing active local treatment comparatively early. Yet I think the suggestions are well worth considering under any conditions.

SOME PRINCIPLES ON WHICH IS BASED THE THERAPEUTICS OF ELECTRICITY IN NERVOUS DISEASES.*

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It will, I think, be admitted that the methods of treatment most efficient in diseases of the nervous system, whether functional or organic, are not to be found among the drugs of the pharmacopœia.

Physical methods, combined with climate and diet, are beginning to be regarded as the essentials, not only in the cure, but in the prevention of many diseases.

It is what we eat and drink and the way we live in the pursuit of business and pleasure that constitute the determining factors of sickness and health.

Now, why is it that so many are disappointed in the results obtained from the use of physical methods of treatment, and especially electricity, in those cases where, according to well established principles, the treatment ought to be efficacious? The reasons, broadly speaking, are three in number:

* Read before the annual meeting of the American Electro-Therapeutic Association, September 22, 1903.

1. Ignorance of the physics and physiology of the method employed.
2. Imperfect technique.
3. Failure to appreciate the differential indications for the use of the various modalities.

One may possess a thorough knowledge of physics, but if his technique is faulty, this knowledge will not avail.

His technique may be perfect, but if he has no power of differentiation, the results will be unsatisfactory.

To appreciate clearly the differential indications for the use of the different electric modalities is at once the most difficult, as it is the most neglected, part of the art of electrotherapeutics, and it will be my aim in the following considerations to make clear some of the principles involved: I am the more impelled to do this, because of an increasing tendency to boom the new at the expense of what is good in the old. The value of static electricity and high frequency currents is well established, but they are not the whole of electrotherapy, and he who confines his efforts to these modalities will in many cases widely miss the mark.

Theoretically and according to the teachings of electrophysiology, when with the galvanic current it is desired to diminish a local nervous excitability, as in cases of neuralgia and spasmodic conditions, it is proper to apply the anode on the sensitive part, thus producing a condition of anelectrotonos.

To produce a contrary effect, to increase the excitability, the cathode is locally applied.

While this is a long established principle in physiological experiment on the exposed nerve, it does not hold to the same extent in therapeutic work. In the use of the galvanic current the positive pole will be found in general to be more sedative in its effects than the negative, but the latter frequently relieves pain quite as readily as the positive.

Sometimes it is more effective.

This is seen in cases of so-called neuralgia, which, upon closer examination, are found to be not cases of true neuralgia at all, but conditions of what may be called pseudo-neuralgia.

In such cases the pain spreads over certain areas, running seemingly in the direction of certain nerves, very unlike the true neuralgia, so graphically described long ago by Anstie.

In true neuralgia the pain accurately locates the course of the affected nerve and pressure invariably increases the distress. In pseudo-neuralgia firm pressure will not only cause no pain, but not infrequently will afford decided relief. In

these cases the local application of the cathode is to be preferred to that of the anode. Not only this, but the faradaic current itself is peculiarly effective in such cases, and will give relief when the galvanic utterly fails. But there is another reason, and one perhaps that will be more readily appreciated, why electricity relieves pain. It does it through its influence over vasomotor activity. All pain is necessarily due to nerve pressure, and by exciting the activity of the circulation through congested areas—inducing indeed a sort of circulatory drainage—the disappearance of pain is often coincident with relief of pressure. It acts very much on the principle of the application of heat, the difference being that its effects are more far-reaching, as evidenced, for example, by its influence over the pain of deep seated malignant growths.

For the relief of spasmodic conditions, combined electrization, or galvanofaradaization, is vastly superior to other methods of electrization. On the contrary, it does not relieve pain so readily as either of the currents alone, of which it is composed, and it is also inferior for this purpose to the electric modalities of higher tension. As to why it fails to relieve pain, it is not perhaps very difficult to conjecture. The galvanic current, like its fellow the faradaic in this combination, becomes subject to a break in the continuity of its flow, and so fails to induce that condition of anelectrotonos essential to sedation. Why it acts so much more efficiently in spasmodic conditions is not so easy to determine, since its lack of power of sedation would seem at first thought to render it quite as useless as an antispasmodic as it is as an analgetic. It must be remembered, however, that contraction of muscular fibre, whether voluntary or involuntary, is the outcome of the combined activities of different nerve centres.

Certain parts, when stimulated, excite muscular contractions; other parts tend to arrest or inhibit movement; and their combined action, when normal, results in a healthy physiologic activity.

Muscular spasms, then, may result as readily from defective inhibitory action as from an excessive excitability of motor nerve centres, and in the treatment of various spasmodic symptoms by internal medication this principle is recognized.

To lessen the irritability of the motor centres, the bromides are given; to stimulate the inhibitory centres alcohol is administered.

It is on this principle, we believe, that combined electrization acts. It should be, and probably is, useless in those cases of spasmodic movement that are dependent upon excessive excitability of the

motor centres; and acts in those cases only that call for stimulation, namely, where there is a deficient action of the inhibitory centres.

Turning to another phase of the subject, let us seek an explanation for the very positive benefits so often obtained through physical and psychical methods in such functional nervous diseases as neurasthenia and those conditions of mental disturbance that have not yet crossed the border line separating them from actual insanity. We must, it seems to me, for want of a better explanation, refer these results to the action of these forms of energy on the nerve units of the body. There is no more fascinating field of research than that relating to the minute anatomy of the nervous system, and the concept of the neurone as a functional unit affords a basis for a rational explanation of the effects on nerve force, of physical and psychical forces.

To appreciate the significance of this statement, one has to accept the theory that the nerve units termed neurones are made up of multifarious prolongations, and are in association with each other by contiguity rather than by continuity, as well as that other theory of amœbic movements. By amœbic movements is meant the power of the neurone, under pressure, to expand and contract by means of its protoplasmic prolongations, by which connections between neurone and neurone are alternately made and broken. On this theory we can no longer consider the nervous system as a permanently continuous chain along which the nervous waves course, like the waves of electric energy over its wire connections, but a path which is liable to offer obstacles to the flow of the nerve current, through many causes. If the causes are grossly organic or structural we may get a permanent amnesia, an incurable hemiplegia, or perhaps insanity; if they stop short of demonstrable change of structure, the paralysis will be slight and transient, and instead of a permanent amnesia, the forgetfulness will be of short duration. Inertia of the neurone and consequent disarrangement of its protoplasmic connections through shock, dissipation of any kind, or through the stress and strain of long continued emotional causes, constitute undoubtedly the causative factors of many a pronounced case of neurasthenia. If a man is hereditarily weak, if he has been endowed with a nervous system so unstable that he is unequal to the ordinary activities of life, all unusual strain, whether of work or dissipation, is bound to interrupt the normal flow of nerve impulses, and to impair more or less permanently the connections between neurone and neurone. His chance for relief, therefore, is inferior to that of those who possess a nervous system heredi-

tarily strong, but which has in the same way been damaged by excess of any kind.

How does electricity act upon the neurone? Is its action almost entirely psychical, as some have asserted, or does it possess a very positive and direct physical action upon the amœbic movements of the neurone body?

The psychical and the physical are so intimately connected that it is often difficult to dissociate them. Physical disease, and even structural changes, are often as much the result primarily of psychic processes as of an actual physical traumatism. Conversely, functional derangements of an organ, and sometimes even organic diseases, are benefited by purely psychical as well as by physical therapeutics. If electricity acted only as a purveyor of suggestion, its well known influence in that direction would entitle it to respectful attention. Its range, however, is far wider than this. In its physical aspect we have only to consider its mechanical, chemical, cataphoric, and electrotonic action, all of which are mathematically demonstrable, to see how much more important are its physical than its psychical influences.

On the neurone the influence of all high frequency current, and of what is termed vibratory therapeutics, must in the main be mechanical or electrotonic. Changes are produced in the excitability of the neurone. New connections develop from out the protoplasmic prolongations, opening up new paths of conduction for the transmission of the nerve waves, the obstruction of which gives rise to so many symptoms of disease.

Nerve force and electricity have long been regarded as entirely distinct the one from the other, but some interesting arguments have been recently advanced in support of their identity.¹ It is held that laboratory experiments respecting the speed of nerve impulses are crude and inexact and not to be relied upon; that, indeed, this speed is much greater than generally believed. This statement as to the greater rapidity of nerve force is based on experiments made on telegraphers as to the maximum rapidity of muscular contractions, which are found much more rapid than the speed commonly attributed to nerve impulses, while the usual speed of electricity is found to be much less than its supposed maximum velocity.

Whatever truth there may be in these suggestions, the analogy between the transmission of the nervous wave and the electric wave is of the most striking character. This is seen in the details of wireless telegraphy, with which you are all familiar.

The coherer, which is simply a tube of iron

¹ J. Emmet O'Brien. *Journal of the American Medical Association*, March 7, 1903.

filings—each particle of iron being separate and distinct, the connection between them being by contiguity rather than by continuity—is absolutely non-conducting to a weak current. Subject it, however, to the influence of electric vibratory waves, and it becomes immediately a conductor and transmits our message. In some such way, it is believed, the nervous system reacts to external influences. In the functionally diseased neurones there is a loss both of contiguity and continuity. Nerve impulses are arrested in their course, resulting in what are termed functional neuroses, in hysteria, in hysterical anæsthesia or paraplegia, in impaired memory and confusion of ideas.

The powerful influence of strong emotional excitation in dissipating certain functional nervous symptoms has long been recognized. It is believed that these purely emotional neuromotor excitations accomplish these therapeutic results by overcoming the non-conductibility of the resistant neurone. In the same way, it seems rational to believe that when a patient is placed within the field of influence of currents of high potential and high frequency, or is subjected to such influences as central galvanization or the static wave current, the resultant effect over sensory, motor, and mental symptoms is due to the power of these electric impulses so to reinvigorate the potential energy of the cell life as to open up new paths for the transmission of the nervous current. It is immaterial that the electric impulses that set in motion and regulate the wheels of industry are transmitted by any special route. The essential thing is the fact of their transmission. It is the same with nervous impulses. If new connections can be formed by the action of any physical or psychical force, to take the place of those broken by disease, it matters not, so long as they are sufficient to transmit the natural nerve force, upon the free transmission of which depends the perfection of every mental and bodily activity.

Therapeutical Notes.

Hæmorrhoidal Cystitis, according to *Presse médicale*, for September 26, 1903, is the most annoying form of bladder inflammation, giving rise to unbearable symptoms after the ingestion of the least quantity of alcohol or other irritating agent. Hot sitz baths and a mild diet give relief, and internally essence of turpentine seems valuable:

- R Essence of turpentine.....4 grammes (1 drachm);
Linctus of oil (Codex).....150 grammes (5 ounces);
Essence of lemon.....6 drops.
M. Tablespoonful in a bowl of milk, morning and evening.

The following should supplement the treatment in case of internal hæmorrhoids:

- R Dry extract of Virginian witchhazel...5 centigrammes (3/4 grain);
Orthoform.....50 centigrammes (7 1/2 grains);
Cocaine hydrochloride...3 centigrammes (1/2 grain);
Extract of belladonna } of each.....2 centigrammes
Extract of opium } (3/10 grain);
Cacao butter.....4 grammes (1 drachm).
M. One suppository; introduce one hour before rising.

If there are external hæmorrhoids, use:

- R Poplar ointment (Codex)...20 grammes (5 drachms);
Orthoform.....1 gramme (15 grains);
Cocaine hydrochloride...20 centigrammes (3 grains);
Extract of belladonna } of each.....2 centigrammes
Extract of opium } (1/5 grain).
M. For an ointment; use morning and evening.

Disinfection of the Stools in Contagious Diseases.—*Revue française de médecine et de chirurgie*, for June 7, 1903, advises the following antiseptic mixture:

- R Zinc sulphate.....100 grammes (25 drachms);
Sulphuric acid.....10 grammes (2 1/2 drachms);
Benzaldehyde.....2 centigrammes (3/10 grain);
Indigo.....15 centigrammes (2 1/4 grains).
M. Drop 75 minims into vessel before using.

The indigo is added merely to give a distinctive color.

Iodated Ointments in the Treatment of Obesity.—Lermoyez recommends in *Médecine moderne*, for August 5th, that brisk rubbing with the following ointment be given over the loins and abdomen in the obese:

- R Pure iodine.....30 centigrammes (4 1/2 grains);
Potassium iodide.....3 grammes (45 grains);
Vaseline.....30 grammes (1 ounce).
M. For an ointment.

For Urticaria.—*Nord médical* for October 1, 1903, cites Brocq as advising the following:

- R Carbolic acid } of each...1 gramme (15 minims);
Essence of mint }
Zinc oxide } of each.....20 grammes (5 drachms);
Lanoline }
Vaseline.....60 grammes (2 ounces).
M. Make an ointment; dust after using, with starch powder.

Tuberculosis.—Von Cefele, quoted by *Progrès médical*, for October 3, 1903, advises for the digestive disturbances in this disease:

- R Ethylene guaiacol.....4 grammes (1 drachm);
Powdered cinnamon.....2 grammes (30 grains);
Syrup of cinnamon.....q. s.
M. Divide into 60 pills; one pill every two hours.

For Chapping.—*Revue médico-pharmaceutique de Constantinople* for August 1, 1903, quotes *Revue médico-pharmaceutique de Paris*, as stating that the following gives good results:

- R Gum tragacanth.....3 parts;
Rose water.....435 parts;
Glycerin } of each.....31 parts.
Alcohol }

M. Macerate the gum in the rose water several days, then add the glycerin and alcohol. Use after washing the hands.

Lotion for Palmar Psoriasis.—*Journal de médecine de Paris*, for August 23, 1903, recommends:

- R Alcohol.....200 grammes (2 3/4 ounces);
Corrosive sublimate...20 centigrammes (3 grains);
Thymol.....1 gramme (15 grains);
Essence of wintergreen.....20 drops;
Carmine.....enough to color.

M. Brush affected parts three times daily with a badger hair brush.

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PROFESSOR LORENZ'S FIRST AMERICAN PATIENT.

Some newspaper mention having lately been made of the present condition of the little girl on whom Lorenz performed his first operation in this country, our readers will doubtless be interested in a trustworthy account of it. Such an account has been furnished to us by Dr. Dexter D. Ashley, of New York, who, it will be remembered, was present at the operation in the capacity of an assistant of Lorenz's. After briefly recounting the circumstances of the operation, which were fully set forth in our columns at the time, Dr. Ashley proceeds as follows:

During the following three weeks of my stay in Chicago, in which time we operated upon some forty-five cases, we frequently remarked how fortunate it was that one of the most stable repositions we had found was in the Armour case. When Dr. Lorenz was here just before sailing, on the 7th of July, he assured me that the right hip was in perfect anatomical reposition, and that the left hip was in a position which would result in a functional betterment, the head slightly external to the anterior superior spine and pointing forward; that both limbs were being given the after-treatment, and that he expected to increase the stability by this means. While here he received a telegram from Mr. Armour which stated his satisfaction with the results so far obtained. On August 17th, while in Chicago, in the office of Dr. Müller, I obtained some more particulars.

He told me that a perfect anatomical reposition had been secured; that he was present at the application of the second plaster, at which time an anæsthetic was administered, and the limb thoroughly manipulated to test the stability, and found to be highly satisfactory in every particular. On October 1st Dr. Müller was in New York, and stated that he was giving the after-treatment, consisting of massage and manipulations, that all casts were off, and that the right hip was in a perfectly normal position and normal in function except for a slight stiffness, which was to be expected in this stage of the treatment.

This statement of Dr. Ashley's should, we think, be looked upon as sufficiently authoritative and as portraying a condition as close to the absolute normal as one ever expects to establish by any operative treatment for congenital dislocation of the hip undertaken six years after the patient's birth. It was indeed auspicious, as Lorenz and his assistants remarked, that his first operation in America turned out so well; had it been a failure or to any notable degree lacking complete success, the many other subsequent operations of the sort by Lorenz and others would hardly have been sought for by parents of children born with the displacement.

A HOSPITAL FOR COLUMBIA UNIVERSITY.

Columbia's notable expansion during recent years quite justifies its reported intention of building a hospital on its own grounds. With the development of the dormitory system, which, we take it, is coming almost at once, there will undoubtedly be collected under the roofs belonging to the university a great number of young men whose homes will be more or less distant, and many of them will at times be sorely in need of medical attendance. It is no more than right that suitable provision should be made by the university for the care of its sick and injured students, quite as every considerable military post has its hospital. Young men away from home, especially if their means are slender, are prone to neglect their health, and whenever it is practicable for others to look after their physical welfare they should not be left to their own devices.

But there is talk of Columbia's establishing a hospital for the express purpose of enhancing the medical school's facilities for clinical teaching. No doubt the private hospitals are generous in affording opportunities for such teaching to the Columbia University School of Medicine as well as to the other medical schools of New York, and the Roosevelt Hospital is so situated as to be

readily available by the particular school that belongs to Columbia, but there are doubtless some advantages attaching to a university's possession of a hospital of its own. We all realize the incalculable aid that has been rendered to the College of Physicians and Surgeons by the Sloane Maternity and it is not difficult to imagine the advantages of a general hospital under the government of the university. If the establishment of such a hospital by Columbia is accomplished, the fact will be one more manifestation of the lively interest taken by the university in medical education.

THE QUESTION OF AN IMMEDIATE OPERATION FOR PENETRATING WOUNDS OF THE ABDOMEN.

It is but a few years ago that the brilliant James Marion Sims startled the surgical world by his vigorous advocacy before the New York Academy of Medicine of laparotomy for gunshot and other penetrating wounds of the abdomen. It seems, however, that the operation had been performed several years earlier, in 1862, by the late Dr. Robert A. Kinloch, of South Carolina. "The subject was a Confederate soldier who had been wounded in the abdomen some time previous. Dr. Kinloch performed laparotomy successfully in Summerville, resecting the intestine and suturing it again with the object of restoring its continuity. The patient lived many years afterward." This passage was quoted from Brant and Fuller's *Encyclopædia* by Dr. Edward F. Parker in a recent prize essay, entitled *A History of Surgery in South Carolina*, and it is again quoted by Captain and Assistant Surgeon Charles Edward Belin Flagg, of the army, in a remarkable article published in the November number of the *Journal of the Association of Military Surgeons*, who says: "I record with justifiable pride that my native State, South Carolina, furnished the surgeon who was 'first in the world to open the abdomen as a restorative operation in cases of gunshot wound, with a view to restoring the intestines.'" He justly speaks of Dr. Kinloch as "a man of action and a surgeon of renown," one capable of creating on the battle field conditions favorable to abdominal work and of surmounting obstacles judged by others to be insurmountable.

Captain Flagg's present article, entitled *A Further Consideration of the Necessity for Immediate Cœliotomy in Penetrating Gunshot Wounds of the Abdomen in War*, is in great measure an answer to certain critics of a previous paper of his on the same subject, read before the association two years ago, at a meeting at which he was unable to be present and take part in the discussion. His contention, in brief, is that the immediate operation, recognized as imperative in civil surgery, is equally imperative in practice on the battle field, and he supports it with what seem to us incontrovertible arguments. He has been at considerable pains to fortify his arguments with clinical records from various sources. In addition, he has secured definite opinions upon certain points from many experienced civil surgeons.

The first of these points relates to the question of whether persons with penetrating abdominal wounds should be operated upon at once as a rule, or only those in whom visceral lesion is certain. Dr. J. H. Carstens, of Detroit, answers: "Yes, the rule should be to operate immediately. The diagnosis of visceral lesion is uncertain. All such operations are necessarily exploratory." Dr. F. W. McRae, of Atlanta, says that all the patients should have the benefit of an immediate operation, for one can be sure of visceral injury in only a small percentage of cases, even when they are extensive. Dr. Harvey G. Mudd, of St. Louis, says that an immediate operation should be the rule, before waiting to make sure that a visceral lesion is present. Dr. John B. Murphy, of Chicago, writes: "They should all have immediate operations." Dr. Roswell Park, of Buffalo, says: "All cases." Dr. John C. Sexton, of Rushville, Ind., says: "Operate on all cases as soon as possible." A Denver surgeon, who does not sign his name, says: "I believe in immediate operation as a rule."

The second point is brought out in the question: "If intestinal perforation has occurred and transportation is necessary, do you believe the patient will stand the best chance of recovery if operated upon before or after the operation?" [So it reads in print, but undoubtedly the last word should be *transportation*.] Dr. Carstens answers: "Before transportation; in some cases

after transportation. See details in letter." Dr. McRae says: "I am sure the danger of transportation would be materially lessened by proper surgery." Dr. Mudd thinks that each case should have individual consideration with regard to the question of transportation. Dr. Murphy says: "Before transportation." Dr. Park says: "Usually after transportation." Dr. Sexton says: "Would advise against moving if possible." Dr. Albert Vander Veer, of Albany, and the in-nominate Denver surgeon say: "Before transportation."

The third point is covered by the question: "If you consider it is proper to delay operating in these cases until primary shock has been recovered from or a certain diagnosis as [to ?] a visceral injury is made, what length of delay is consistent with the interests of the patient?" Dr. Carstens replies: "It depends on the degree of primary shock. As a rule, yes. Absolute diagnosis impossible and no fixed time for delay. If hæmorrhage, absolutely no delay, no transportation, immediate operation; if no hæmorrhage, delay of six, twelve, or even twenty-four hours can be permitted." Dr. McRae says: "I do not approve of delay. I do not think the simple tracing of a wound or careful exploration dangerous." Dr. Mudd says: "I think the best interests of the patients are served by the earliest operation possible consistent with good circumstances and surroundings for operation." Dr. Murphy answers: "If they are not operated [on ?] at once and perforation has taken place, the manifestation of infection would as a rule only precede the fatal termination." Dr. Park says: "Delay inadvisable." Dr. Sexton says: "Operate at once or not at all." Dr. Vander Veer answers: "I would not wait longer than twelve hours for primary shock to pass." The anonymous surgeon of Denver says: "Only sufficient delay to overcome shock."

It will be seen that Dr. Flaggs's contentions are upheld with virtual unanimity by the distinguished surgeons who replied to his questions, and it must be conceded, we think, that he has sufficiently answered the critics of his previous communication. We can readily imagine that his vigorous presentation of his views will lead to improved results on the battle fields of the future.

SOME MIMICRIES OF EYE STRAIN.

I.

The symptoms of eye strain stretch out into an extraordinary train. Thorough investigation of the eyes necessarily is part of the search for the ætiology of headache of all kinds and of migraine, vertigo, nausea, pseudochorea and habit chorea, neurasthenia, and similar manifestations. Many so called gastric troubles, flatulent and other types of dyspepsia, indigestions, tachycardia, night terrors, especially as they occur in children, and pain strangely and persistently situated in the nape of the neck, between and under the shoulder blades, in the præcordium, at the end of the spine, and deep in the mastoid region, may be the interpretations of anomalies of refraction and ocular motility.⁴ Such facts are widely known, and, indeed, they have been known for years and medical practice moulded according to this knowledge, although curiously enough, as has been well pointed out by Dr. Gould in his persistent directing of attention to the eye strain reflexes, many of the most important of them find no place in the most used text-books on general medicine. Neutralization of refractive errors and restoration of normal muscle balance under the circumstances detailed yield results so startlingly good that ophthalmologists are justified in constantly dwelling upon the benefits of ocular treatment. It should be remembered, however, that anomalies of refraction, accommodation, and muscular balance are not the only causes of asthenopia and ocular discomfort, that the mimicries of eye strain may deceive the incautious observer, and that a consideration of some of these may explain certain failures of the best directed optical therapeutics.

Although the terms "lithæmic state," "gouty diathesis," and "uric acid diathesis" may not be strictly scientific, we are none the less in the habit of employing them to describe certain ill defined symptoms which are manifestations of a condition of disordered nutrition, which depend, in other words, upon defects of metabolism whereby products derived from cell nuclei are not properly used up or excreted. That serious ocular disorders, like the various types of keratitis, iridocyclitis, and hæmorrhagic retinitis, and more

transient ocular manifestations—for example, episcleritis and certain types of conjunctivitis—may result from these conditions is well known, but that their milder manifestations may exactly simulate the eye strain and asthenopia of refractive error is perhaps not so commonly accepted.

Patients not infrequently present themselves greatly annoyed by a sensation, either burning, itching, or crawling in character, persistent or intermittent, which locates itself along the margin of the lid, usually most noticeable in the early evening soon after the beginning of artificial light and increasing when the eyes are used for close work. Examination fails to reveal the slightest local reason for such a condition, and glasses, although they may be indicated by the presence of refractive error, and all measures to relieve anomalies of muscular balance are unavailing, while treatment directed to relief of the type of disordered nutrition previously referred to yields the happiest results. In other words, this itching, burning, or formication of the eyelid margins is a form of masked gout, analogous to the common nervous manifestation of hot or itching feet at night in subjects of this affection, a symptom which, as Osler has pointed out, Strabo was wont to call the "lipping of the gout." That exactly analogous symptoms are the constant result of ordinary eye strain from refractive error, and when suitable glasses are ordered promptly disappear, need not be emphasized. Therefore when under these conditions optical therapeutics is unavailing, it certainly is worth while to make the most thorough investigation from the standpoint of modern physiological chemistry, and order treatment according to the findings.

How often one sees either a persisting or a fugitive œdema of the lid margin of like origin! So certainly may this have an ætiological significance of this character that the French are wont to give it the name "arthritic œdema" in recognition of its true ætiological significance.

G. E. DE SCHWEINTZ.

A NEW JOURNAL OF ORTHOPÆDICS.

We have received the first number of the *American Journal of Orthopædic Surgery*, a quarterly of 108 pages of reading matter, edited by Dr. R. W. Lovett, of Boston, Dr. B. E. Mackenzie, of

Toronto, and Dr. Harry M. Sherman, of San Francisco, and published, apparently in Boston, by the American Orthopædic Association, of whose annual volumes of *Transactions* it is a continuation. The number has an exceedingly fine appearance, and the matter contained in it is of a high order of excellence. It is dated August, 1903.

ANOTHER "PARA-" NAME FOR CERTAIN SKIN DISEASES.

Cullen and Good and Piorry would have revelled in the series of "para-" diseases that is of late getting to be so extensive. The latest addition to this nomenclature that has come to our notice is the term parapsoriasis bestowed by Brocq (*Annales de dermatologie et de syphiligraphie*, May, 1902; *Berliner klinische Wochenschrift*, August 17th) on a group of skin diseases previously named parakeratosis variegata by Unna. They are described as more or less resembling psoriasis and psoriatic and pityriatic seborrhœa on the one hand and lichen planus on the other. Brocq makes three varieties of them—parapsoriasis en gouttes, parapsoriasis lichénoïde, and parapsoriasis en plaques. Dermatology has always been a rich field for the coiner of names. The coming great man in the specialty will, we hope, simplify its onomatology.

RETARDED RICKETS.

"Rhachitis tarda," that is, rickets that does not show itself until after the third year of life, does not appear to be recognized by most writers on the diseases of children, but Roos (*Zeitschrift für klinische Medizin*, xlviii, 1, 2; *Berliner klinische Wochenschrift*, September 14th) has recorded two cases of late development. In one of them the patient was eleven years old when the disease appeared, and in the other the seventh year was the time of its inception.

Obituary.

JULIAN J. CHISOLM, M. D.,
OF BALTIMORE.

Dr. Chisolm died in Petersburg, Virginia, last Sunday, at the ripe age of seventy-three. For many years after the close of the Civil War he was a distinguished ophthalmologist of Baltimore and active in the affairs of one of the medical schools of that city. Until within the last few years he was a frequent contributor to periodical literature, and several of his articles were published in this journal.

News Items.

Society Meetings for the Coming Week:

MONDAY, November 9th.—New York Academy of Medicine (Section in General Surgery); New York Academy of Sciences (Section in Chemistry and Technology); New York Medicohistorical Society (private); New York Ophthalmological Society (private); Gynæcological Society of Boston; Burlington, Vt., Medical and Surgical Club (annual meeting); Norwalk, Conn., Medical Society (private); Medical Association of the Greater City of New York; Society of Medical Jurisprudence.

TUESDAY, November 10th.—New York Academy of Medicine (Section in Genitourinary Surgery); New York Medical Union (private); New York Obstetrical Society (private); Buffalo Academy of Medicine (Section in Medicine); Kings County, N. Y., Medical Association; Rome, N. Y., Medical Society; Medical Society of the County of Rensselaer, N. Y.; Newark, N. J., Medical Association (private); Trenton, N. J., Medical Association; Clinical Society of the Elizabeth, N. J., General Hospital and Dispensary; Northwestern Medical Society of Philadelphia; Practitioner's Club, Richmond, Ky.; Richmond, Va., Academy of Medicine and Surgery.

WEDNESDAY, November 11th.—New York Pathological Society; New York Surgical Society; American Microscopical Society of the City of New York; Society of the Alumni of the City (Charity) Hospital; Society for Medical Progress, New York; Pittsfield, Mass., Medical Association (private); Philadelphia County Medical Society; Lenox Medical and Surgical Society (private).

THURSDAY, November 12th.—New York Academy of Medicine (Section in Pædiatrics); New York Academy of Medicine (Section in Otolary); Society of Medical Jurisprudence and State Medicine, New York; Brooklyn Pathological Society; Medical Society of the County of Cayuga, N. Y.; South Boston, Mass., Medical Club (private) (annual); Pathological Society of Philadelphia; Church Hill Medical Society of Richmond, Va.

FRIDAY, November 13th.—Yorkville Medical Association, New York (private); Brooklyn Dermatological and Genitourinary Society (private); German Medical Society of Brooklyn; Medical Society of the Town of Saugerties, N. Y.

SATURDAY, November 14th.—Obstetrical Society of Boston (private).

NEW YORK, CITY AND STATE

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending October 31, 1903:

	Week end'g Oct. 24.		Week end'g Oct. 31.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	108	7	193	6
Diphtheria and croup.....	285	39	274	29
Scarlet fever	86	2	84	7
Smallpox	2	0	1	0
Chickenpox	28	0	23	0
Tuberculosis	322	148	278	167
Typhoid fever	90	21	100	18
Cerebrospinal meningitis..	..	3	..	3
Totals	921	220	953	230

The Buffalo General Hospital has planned to erect a new building in the rear of the present institution and facing on Goodrich Street for the use of nurses. It will be a four story structure of brick thirty-two by one hundred and nineteen feet, and will cost some \$31,000.

Discipline at Syracuse University.—Dr. H. D. Didama, dean of the College of Medicine at Syracuse, N. Y., has thrown a bombshell among the medical students of that institution by prohibiting absolutely the use of tobacco in the college buildings. Singing and shouting are also tabooed.

A Civil Service Vacancy in Buffalo.—On November 10th, the civil service commissioners will conduct an examination in the Central high school building to fill the vacancy in the position of district physician in the seventh district of Buffalo, N. Y. Applications must be filed at the office of the commission in Ellicott Square by the 8th. The salary is \$400.00 per annum.

New York Skin and Cancer Hospital, Second Avenue, corner Nineteenth Street. The governors of the New York Skin and Cancer Hospital announce that Dr. L. Duncan Bulkley will give a sixth series of Clinical Lectures on Diseases of the Skin in the Out-Patient Hall of the Hospital on Wednesday afternoons, commencing November 4, 1903, at 4.15 o'clock. The course will be free to the medical profession. William C. Witter chairman of Executive Committee.

Benefit for Orthopædic Hospital.—An exhibition of portraits by prominent artists will be held on Tuesday afternoon, November 17th, at the American Art Galleries, 6 East Twenty-third Street, for the benefit of the Orthopædic Hospital. Tea will be served at a subsequent reception. Among some of the more notable pictures to be shown will be four early English portraits loaned by Mr. Benjamin Altman; some historical portraits from the old Jay mansion at Katonah, including portraits of Washington, Alexander Hamilton, and John Adams, by John Trumbull, and loaned by Colonel William Jay; a Van Dyck, loaned by Mr. William C. Whitney; a portrait of Chief Justice Jay, by Gilbert Stuart; a portrait of Miss Hill, by Copley, loaned by George R. White, of Boston; a Rembrandt, a Romney, and a Franz Hals, loaned by Senator W. A. Clark; a portrait of the Comtesse de Frangueville, by Mme. Vigée Lebrun, and a portrait of a lady, presumed to be the Duchesse de Talleyrand, by Mme. Vigée Lebrun. There will also be shown a portrait of Louise Montluçon, by François Gerard; a portrait of the Dauphin, son of Louis XV., by Nattier; a portrait of Lady Annabel, by Hoppner, and a Raeburn, loaned by Agnew & Son, of London; twelve portraits by John S. Sargent and a Whistler, loaned by A. J. Cassett. American portraiture will be represented by samples of William M. Chase, Kenyon Cox, F. D. Millet, Henry Inman, Benjamin C. Porter, Robert Reid, Sergeant Kendall, Lydia Field Emmet, A. Q. Collins, Frank Fowler, and bas-relief portraits by Augustus St. Gaudens.

The New York State Association of Railway Surgeons will hold its thirteenth annual meeting in the New York Academy of Medicine, 17-21 West Forty-third Street, Thursday and Friday, November 12th and 13th. The following papers have been promised: Car Sanitation, by Dr. James A. Exton, of Arlington, N. J.; Discussion opened by Dr. G. P. Conn, of Concord, N. H.; Injuries to the Head, by Dr. C. B. Herrick, of Troy, N. Y.; Modern Treatment of Wounds, by Dr. Walter Lathrop, of Hazleton, Pa.; The Diagnosis of Injuries of the Hip, by Wisner R. Townsend, A. M., M. D., of New York city; Traumatism as a Factor in the Causation of Hernia, by Dr. W. B. Coley.

of New York city; An Address on Hernia, by Dr. John B. Deaver, of Philadelphia; President's Address, Fracture of the Ribs or Traumatic Pleuritis, by Dr. Henry Flood, of Elmira, N. Y.; Treatment of Surgical Shock, by Dr. C. S. Parkhill, of Hornellsville, N. Y.; Treatment of Nasal Hemorrhage, by Dr. W. K. Simpson, of New York city; Multiple Gun Shot Wounds of the Intestines and Mesentery, with Recovery, by Dr. J. B. Hulett, of Middletown, N. Y.; Some Uses of Picric Acid in Surgery, by Dr. A. W. Booth, of Elmira, N. Y.; Conservatism in Railway Surgery, by Dr. G. R. Trowbridge, of Buffalo, N. Y.; A New Instrument and Some of Its Uses, by Dr. H. P. Jack, of Canisteo, N. Y.

New York State Civil Service Commission; examinations for Superintendent and Resident Physician in the New York State Hospital for the treatment of incipient pulmonary tuberculosis. The State Civil Service Commission will hold open competitive examinations for the above mentioned positions, November 28, 1903, in various cities throughout the State. Intending competitors must fill out application blanks and file them in the office of the Commission before noon of November 23rd. Applicants will be duly notified of the time and place of examination. Non-residents of the State will be admitted. The requirements and conditions of examination are as follows: *Medical Superintendent.*—Probable salary \$3,500 a year, with quarters and maintenance for the superintendent and his family. The duties of the position are defined by Chapter 416 of the Laws of 1900, which further provides that such medical superintendent shall be a well educated physician, a graduate of a legally chartered medical college, who has had at least six years' actual experience in the practice of medicine, including at least one year's experience in a general hospital. Subjects of examination and relative weights: Experience, education, and personal qualifications, 4; written examination covering general medicine, hospital administration, pathology, bacteriology, and therapeutics of pulmonary tuberculosis, including dietetics and sanatorium treatment, 3; practical examinations of patients for diseases of the chest, 3. The written examination will be held in any of the cities named on the application on November 28th. The practical test will be held at a later date and place (probably Albany), of which candidates successful in the experience and written examinations will be duly notified. *Resident Physician.*—Probable salary from \$900 to \$1,500 a year, with quarters and maintenance. Duties to be prescribed by the medical superintendent under the direction of the Board of Trustees. Candidates must be regularly graduated physicians, and have had at least two years' experience in the practice of medicine, including one year's actual experience in a general hospital. Subjects of examination and relative weights: Written examination covering anatomy, physiology, materia medica and therapeutics, chemistry, theory and practice, surgery; also a special examination in pathology of pulmonary tuberculosis, in bacteriology and descriptive laboratory methods, 6; practical examination in the

physical diagnosis of diseases of the chest, in the examination of sputa, blood, urine, and other pathological material, 4. The written examination will be held in any of the cities named on the application on November 28th. The practical test will be held at a later date and place (probably Albany), of which candidates successful in the written examination will be duly notified. For further particulars and application blank, address Chief Examiner, State Civil Service Commission, Albany, N. Y.

The Woman's Hospital of the State of New York is about to erect a new building on Morningside Heights, New York, at One Hundred and Tenth Street. The building will be composed of a central pavilion, fifty by seventy-five feet, connected by two lateral wings so arranged as to have sunlight in every room. The whole institution will have a frontage on Cathedral Parkway of 300 feet.

PHILADELPHIA AND PENNSYLVANIA

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

	Week end'g Oct. 24.		Week end'g Oct. 31.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	9	8	13	8
Diphtheria	56	10	94	10
Scarlet fever.....	59	2	60	6
Typhoid fever.....	80	5	69	11
Consumption .....	..	48	..	68
Cerebrospinal fever.....	0	0	..	..

More Smallpox in Philadelphia.—Up to Monday evening of the past week five more cases of smallpox had been reported than the whole number of cases reported the previous week.

University of Pennsylvania Dormitories.—The University of Pennsylvania has awarded a \$40,000 contract for the erection of a large addition to the present dormitories. The plans call for a four story brick and stone building with terra cotta trimmings, a frontage of seventy-five feet, and a depth of thirty-nine feet.

Philadelphia Board of Health Modifies a Rule.—It is stated that in future the board of health of Philadelphia will not insist that inmates of houses where cases of scarlet fever and diphtheria appear shall be compelled to go to the Municipal Hospital for disinfecting by means of baths and fumigation, but that this edict shall apply only to cases of smallpox.

Philadelphia Obstetrical Society.—The meeting of the society held on the evening of November 5th consisted of the following programme, followed by a "smoker:" Observation on German Gynecological Surgery, by Dr. Charles P. Noble; (1) Case of Paralysis of the Abdominal Sympathetic and Fæcal Impaction Following Labor; (2) A Case in Which Death from Hemorrhage Followed Premature Labor, by Dr. Edward P. Davis; Remarks on Cæsarean Section, with a Report of Three Cases, by Dr. George M. Boyd. The secretary is Dr. Frank C. Hammond, of 1419 Tioga Street.

The Philadelphia Academy of Surgery met in the hall of the College of Physicians on the second instant, when the following programme was discussed: A Case of Osteitis Deformans, by Dr. John B. Roberts; Two Cases of Subacute Obstruction of the Bowel, by Dr. W. Joseph Hearn; Results of An Operation for Ankylosis of the Jaw, a Case of Congenital Dislocation of the Patellæ, Rupture of the Middle Meningeal Artery by Contrecoup, by Dr. Francis T. Stewart. William J. Taylor, M. D., secretary, 1825 Pine Street.

Elisha Kent Kane's Memory Honored.—Elisha Kent Kane, physician, scientist, and explorer, was honored last week on the occasion of the twenty-first anniversary of the founding of the school bearing his name, at Twenty-sixth and Jefferson Streets, Philadelphia. Mrs. Thomas L. Kane, of Kane, Pa., presented to the school four water color paintings by Mr. Kane, done while he was ice bound on the expedition he led in relief of the Sir John Franklin party that had crossed the arctic circle in search of the north pole. Amos Bonsal, the last survivor of the relief party, made an address.

Roof Garden for Eastern Penitentiary Suggested.—Dr. L. F. Flick, who is at the head of the Henry Phipps Institute, has suggested a roof garden for the consumptives at the eastern penitentiary, which is supposed to be a hotbed for consumption among a definite percentage of its inmates. He has emphasized his intention by the following statement: "It is a fact borne out by scientific research that about three fourths of the criminals who are sent to prison have tuberculosis. They may not be in the advanced stages, but the disease is there. Consequently, in many instances, where the intention is merely to send a man to prison for punishment, in effect it means a sentence to death."

Library of the College of Physicians of Philadelphia.—An extremely valuable and unique addition to the library of the College of Physicians has just been made through the generosity of Dr. George W. Norris, consisting of three volumes containing the collection of colored eye grounds made up of the original drawings and notes of Professor Eduard Jaeger, of Vienna, from which the well known "Jaeger Atlas" was produced. The drawings were all made by Jaeger himself and each of them represents an exact and careful copy of an eye ground appearance as seen by him. This collection was sold after Jaeger's death by order of his executors, and was purchased by the late Dr. William Fisher Norris, first professor of ophthalmology at the University of Pennsylvania, for \$2,400. Quite a storm of protest arose at the time from the medical profession in Vienna, who held that such valuable landmarks in the history of Viennese ophthalmology should not have been allowed to be taken from the archives of the "Kaiserstadt." Dr. Norris has also presented one volume containing the collection of ophthalmological drawings from cases seen in the practice of the late Dr. William Fisher Norris, from 1873 to 1901. This volume is valued by the library at \$800, which is, perhaps, about one half of the amount paid by Dr. Norris to the artists.

CHICAGO AND ILLINOIS

Statement of Mortality for the Week Ending October 31, 1903, compared with the preceding week and with the corresponding week of 1902. Death rates computed on estimated mid-year populations of 1,885,000 for 1903, and of 1,820,000 for 1902:

	Oct. 31, 1903.	Oct. 24, 1903.	Nov. 1, 1902.
Total deaths, all causes	475	442	427
Annual death rate per 1,000	13.07	12.21	12.56
Principal causes of death			
Acute intestinal diseases	30	25	21
Apoplexy	10	11	7
Bright's disease	37	38	31
Bronchitis	14	8	16
Consumption	32	32	38
Cancer	21	22	23
Convulsions	9	6	11
Diphtheria	19	18	21
Heart diseases	48	32	34
Measles	1	0	2
Nervous diseases	23	20	17
Pneumonia	63	49	44
Scarlet fever	0	3	5
Suicide	11	12	4
Typhoid fever	7	11	14
Violence (other than suicide)	25	28	26
Whooping cough	1	1	2

The County Hospital, of Chicago, Ill., held an examination on October 28th of eight candidates for the position of assistant warden, which the authorities have decided should be held by a duly qualified physician.

Pneumonia a Menace.—The total 1,962 deaths from all causes reported during October furnish an annual rate of 12.25 per thousand. This is 13.6 per cent. less than the average October rate of the previous ten years, which was 14.19. With one exception—that of 1898, when the rate was 11.97—this is the lowest October rate on record, although that of 1901 was the same. There were 282 more deaths of males than females—an excess of 25 per cent. The 195 pneumonia deaths—almost ten per cent. of the total—is unusual for October and is ominous for the future.

Why Not Have a Crusade Against Pneumonia?—In view of its public record the department does not feel called on to disclaim any intention of minifying the importance of "anti-tuberculosis crusades" or any other sane and rational effort for the restriction of consumption. But it is pitifully true that such work is "vitiated by exaggerated and panicky fears," as the *Journal of the American Medical Association* for October 31st asserts. Not only so, but the intemperate and the sensational "crusaders" see consumption only and nothing but consumption. Not a single reference was made by any speaker at the recent public health meeting to the alarming increase of pneumonia. No suggestion was made of measures for the restriction, no committee appointed for the study of "the most widespread and fatal of all acute infectious diseases"—a disease which has increased fifty-three per cent. in the number of its deaths since 1890, while the consumption deaths are steadily decreasing. Already, thus early in the season, the pneumonia deaths outnumber the consumption deaths, and they will continue to do so for the next thirty weeks or more. At the midweek conference of the heads of divisions and bureaus the chief medical inspector was instructed to call upon his assistants for suggestions of measures for the restriction and prevention of this disease, to be embodied in a circular for general distribution.

Commencement at the Illinois Medical College.

—The commencement exercises of the Illinois Medical College were held on September 30, 1903, at Handel Hall, with the following programme: Prayer, by Bishop Samuel Fallows; Piano Solo—Song to the Evening Star, from *Tannhäuser* (Wagner), by Miss Ruth Somers; Secretary's Report, by Professor W. C. Sanford, M. D.; Vocal Solos: a. At Parting (Rogers), b. Carmina Waltz Song (Wilson), by Mrs. Frances Carey-Libbe; Announcement of the Graduating Class, by the Dean, Professor B. Brindley Eads, M. D.; Conferring the Degrees, by the President, Professor Heman H. Brown, M. D.; Violin Solos: a. Walther's Preislied, from *Die Meistersinger* (Wagner), b. Ungarische Tänze (Josef Joachim), by Miss Clara Lauf; Doctorate Address, by the Honorable Edmund W. Burke; Vocal Solo: Good Night, Little Girl (Macy), by Mrs. Frances Carey-Libbe; Valedictory, by Dr. Claude William Asbury; Benediction, by Bishop Samuel Fallows.

GENERAL

The Cincinnati City Hospital will add to its staff of internes, on November 10th, Dr. Sidney Lange, Dr. Charles Grosman, Dr. Arthur Voss, and Dr. H. H. Johnson.

The Edward VII Sanatorium was founded November 3rd by the king at Midhurst, Sussex. The institution is for consumptives, and has been endowed by Sir Ernest Cassel with £200,000.

The Medical Department of Tulane University, New Orleans, La., opened on October 26th with an address by Dr. Metz, while Dr. Ernest Lewis spoke to the students at the Charity Hospital.

The New Deaconesses' Hospital, of Louisville, Ky., was started on October 25th by the laying of the cornerstone by the Reverend Dr. G. E. Hiller in the yard of the present building, 731 Eighth Street.

St. Mary's Orphan Asylum Hospital.—On October 27th Cardinal Gibbons formally opened and blessed this institution at Roland Park, Baltimore, Md. About 800 people assisted in the ceremony and attended the reception following.

The Terrebonne Parish Medical Society was organized on October 24th at Houma, La., the following officers being elected: President, Dr. R. E. McBride; vice-president, Dr. Adolphe Delcourt; secretary, Dr. A. Delcourt, Jr.; treasurer, Dr. A. Tircuit.

The St. Mary Parish Medical Society was organized on October 24th, at Glencoe, La., the following officers being elected: President, Dr. S. J. Gates, of Franklin; vice-president, Dr. W. J. McClellan, of Morgan City; secretary-treasurer, Dr. G. A. Sigur, of Glencoe.

Harvard Medical School and the Boston Lying-in Hospital have been made beneficiaries by the will of the late Dr. George Haven, of Boston, the former to the extent of \$25,000 outright and a share in a residue, and the hospital to \$20,000, all the doctor's books and instruments and an equal share in the residue.

At the General Hospital, of Lowell, Mass., Dr. Arthur K. Drake was appointed superintendent on November 1st; he has been assistant superintendent at the Tewksbury State Hospital for the past six years.

The Baltimore University Hospital opened its new quarters for private patients and its new laboratories for students on Bond Street on November 2nd. The new building consists of an eighteen room house that has been remodeled for scientific purposes.

Bequests to Hospitals.—By the will of Mary C. Sawyer, of Somerville, Mass., the Somerville Hospital gets \$500.00; the Somerville Home for the Aged, \$800.00; the Hospital College of Children at Baldwinville, \$500.00; and the Boston Seaman's Friend Society, \$1,000.00.

The Middlesex County Hospital, of Middletown, Conn., has received \$5,000 by the will of the late S. Hubbard Clark, a bequest particularly timely on account of the expense incurred in the equipment of the Camp homestead, given to the hospital by Colonel H. L. Camp, of New Haven, and his sister, Mrs. Anna Sneath.

The Hospital for the Relief of Crippled and Deformed Children, of Baltimore, Md., is endeavoring to secure a permanent "Founders' Fund," to be used in developing the charity. A summer home has been secured at Blue Ridge Summit, Pa., where a number of children are taken yearly. Contributions may be sent to Mr. John Gittings Brogden, of Baltimore.

The American Public Health Association, at its recent meeting in Washington, D. C., elected the following officers: President, Dr. Carlos J. Findlay, of Havana, Cuba; first vice-president, Dr. J. R. Monjaras, of Mexico city; second vice-president, Dr. William C. Woodward, of the District of Columbia; secretary, Dr. Charles O. Prabst, of Columbus, O.; treasurer, Dr. Frank W. Wright, formerly city health officer of New Haven, Conn.

Goat's Milk for St. Louis Babies.—Several physicians of St. Louis, Mo., are considering the expediency of establishing a dairy in that city for the sale of goat's milk, which is said to be immune from tuberculous qualities and to be easily digested. It is proposed to purchase a farm of 1,000 acres in the Ozarks and to stock it with goats procured from Switzerland, France, and Germany. The plan includes the leasing of goats to families, that milk may be had fresh every morning, and furnishing the animals, free of charge, to the indigent.

Less Publicity for British Physicians.—The British Medical Association recently resolved to send a circular letter to the lay press requesting that the names of attending physicians in any case be suppressed, in the report made for the public. An exception is made in the case of any member of the royal family. This recalls the recent rejection by the Goodhue county (Minn.) medical association of an application for membership by a local surgeon who stated openly that he had found that publication of details concerning his various operations had helped his practice materially.

Pith of Current Literature.

DEUTSCHE MEDICINISCHE WOCHENSCHRIFT.

September 24, 1903.

1. Origin of Pulmonary Tuberculosis and the Fight Against It, By E. VON BEHRING.
2. Typhoid Bacilli in Milk, By R. BASSENCE.
3. The Ætiological Factor of Rabies, By SCHÜDER.
4. Therapeutic Use of Chloride of Barium, By VON TABARA.
5. The Curability of Total Progressive Atrophy of the Bones, By E. ROSE.
6. Severe Anæmia Due to *Tania Solium*, By E. DIRKSEN.
7. Citarin, a New Remedy for Gout, By A. LEIBHOLZ.

1. **Pulmonary Tuberculosis.**—Von Behring says that such a thing as inhalation tuberculosis does not exist; nor can there be an hereditary disposition to the disease. There may be an hereditary disposition only through the ingestion of tuberculous milk. All cases of tuberculosis are acquired in infancy by the gastrointestinal tract, which is easily pervious to the bacilli in these tender years. Behring believes, in opposition to Koch, that bovine and human tuberculosis are identical. He asserts that he has found in the spleen of infected animals a cure for human phthisis, on the principle of vaccination. Practically, he urges the pasteurization of milk at the farm instead of immediately before use after its long transportation, and the wide separation of infants taking artificially prepared food and coughing phthisis patients. [The entire article is exceedingly suggestive and epoch-marking, and should be read in the original. Its abstraction is impossible.]

2. **Typhoid Bacilli in Milk.**—Bassenge reports the results of his experiments. Warming milk for five minutes at sixty degrees C., is sufficient for absolutely killing contained typhoid bacilli. Earthen ware vessels are better for this purpose than iron or enameled ones, as the milk is heated in them for a longer time, although the heating takes longer originally. The extinction of typhoid bacilli in milk, cream, buttermilk, and butter is not due to an excessive growth of other bacteria, but to an acid formation, and begins as soon as the acid reaches a percentage of three tenths to four tenths, and continues to be present for twenty-four hours or longer.

4. **Therapeutic Use of Barium Chloride.**—Tabara recommends this drug for the milder degrees of cardiac insufficiency, especially in the disturbances of compensation which are accompanied by a loss in the arterial blood pressure. He found the pulse and blood pressure favorably influenced also in pneumonia. It seems to act by contracting the blood vessels and by slowing the pulse through the irritation of the pneumogastric nerve thus evoked. It is well borne and seems to have no disagreeable after-effects, but it cannot replace digitalis.

5. **Osseous Atrophy.**—Rose reports the case of a boy who, following an osteomyelitis of the tibia, had an extensive necrosis succeeded by a pseudo arthrosis. No method of treatment

seemed efficacious, until a long piece of ivory was inserted, which healed into the bone, permitted walking and through its irritation excited the old bone to renewed growth.

BERLINER KLINISCHE WOCHENSCHRIFT.

October 5, 1903.

1. Paralysis of the Accessory Nerve in Tabes Dorsalis (*To be concluded*), By W. SEIFFER.
2. Immediate and Permanent Action of Light and Heat Upon the Temperature of the Skin, By E. SOMMER.
3. Animal Experiments with Subcutaneous Feeding with Proteid Substances, By TROLLDENIER.
4. Arthrotic Albuminuria, By O. JACOBSON.
5. Influence of Light and Sun Baths on the Human Body, By E. SINGER.

2. **Light and Heat Effects on Skin Temperature.**—Sommer asserts the following dicta as a result of his experiments with Herz's thermopalpation apparatus: The temperature of the skin over chronically inflamed joints is lower than on the healthy side, even when no acute exacerbation is present. On the application of rays of light and heat, the temperature of the affected side rises and that of the healthy side sinks. In from two to four hours the condition is again reversed.

4. **Orthototic Albuminuria.**—Jacobson says that orthototic and pubescent albuminuria belong to the category of nervous hereditary taints. The percentage albuminuria is not constant, and no trace can be found after the recumbent position is assumed for some time. A characteristic feature is the sudden presence of albuminuria and its sudden cessation.

ZENTRALBLATT FUER GYNAEKOLOGIE.

September 26, 1903.

1. Cesarean Section and Total Extirpation of the Uterus for Myomata, By K. G. LENNANDER.
2. A Median Fundal Suspensory Ligament Following Ventral Fixation, By F. MICHEL.
3. Treatment of Asphyxiated Infants, By W. ZANGEMEISTER.

2. **Medial Fundal Suspensory Ligament.**—Michel describes under this name a peritoneal band which forms between the abdominal wall and the fundus of the uterus after ventral fixation by his method. He describes a case in a woman who had been operated on three years before. The ligament was fifteen cm. long, and consisted mainly of vascular connective tissue.

3. **Asphyxia Neonatorum.**—Zangemeister recommends in these cases the use of oxygen. It should be injected very gently into the trachea by means of a tracheal catheter from a rubber bag. This is to be followed by pressure upon the chest to free the chest from its presence. This is to be repeated until the child breathes and its color improves.

ZENTRALBLATT FUER CHIRURGIE

September 26, 1903.

1. Ogston's Operation for Rebellious Club Foot, By CARL LAUENSTEIN.
1. **Ogston's Operation for Club Foot.**—Lauenstein says that this operation, which consists in

removing the osseous centres of the tarsus and subsequent reformation of the foot, is easy of accomplishment, but a previous Röntgen ray examination is imperative. If plates are taken, the reproduction of the osseous centres and the growth of the individual bones can be controlled. Whether the soft parts are subsequently sutured or not is unimportant. If enough of the bone has been removed, the correction of the deformity becomes very easy and more complete than by any other method. Aside from the varus and equinus positions, the inward rotation of the point of the foot, is most easily accomplished. The after treatment is simple. In eight weeks children can go about in leather shoes. In from six to eight weeks the Röntgen rays show a reproduction of the osseous centres, so that shortening of the foot is not to be expected.

October 3, 1903.

1. Retroduodenal Choledochotomy, By F. DE QUERVAIN.
2. A New Operating Table, By A. E. STEIN.

1. Retroduodenal Choledochotomy.—De Quervain says that Berg's suggestion of retroduodenal choledochotomy is not entirely new, but it is a valuable suggestion and the author reports a case in which he performed the operation under difficult conditions. The operation is indicated in all cases in which the duodenum can be separated in a clean way. Absolute hæmostasis must be observed if the duodenum is adherent to the pancreas and the ductus choledochus, and if there is any danger of injury to the intestinal wall or of hæmorrhage, the transduodenal operation of Kocher is to be preferred.

LYON MEDICAL.

October 4, 1903.

1. Rhizomelic Spondylosis, and Tuberculosis.
By PIC and BOMBES DE VILLIERS.
2. The Puerperal State and Ulcer of the Stomach,
By CHABANNES.

1. Rhizomelic Spondylosis.—Pic and de Villiers state that P. Marie gave this name to a condition characterized by rigidity of the spine and incomplete union of the coxofemoral and humeroscapular joints; they give an exhaustive analysis of two cases in which they noted multiple, articular ankyloses, due, they think, to a fibroformative evolution of chronic tuberculosis, as were the co-existing pulmonary sclerosis, pleural adhesions, and myocarditis. They recognize that rheumatism might be an ætiological factor, but give it a quite subordinate rôle to that of tuberculosis.

SEMAINE MEDICALE.

October 7, 1903.

- A Contribution to the Study of the Mechanism of Voluntary Movements, and of the Functions of the Pyramid of the Medulla,
By G. MARINESCO.

Voluntary Movements.—Marinesco's article is a long and complete description of cases suffering from one or another form of lesion of the medulla, epileptic; operative or otherwise. Some of his conclusions are that the extensor muscles of the arm are in more immediate communication with the brain than the flexors, and particularly those muscles concerned in movement of oppo-

sition. Isolated movements seemed to be impossible to Marinesco's patients; the attempt to flex one finger brought about flexion of the others. Muscular force was reduced, and difficulty of performance of any act was proportioned to its delicacy or minuteness.

PRESSE MEDICALE.

September 26, 1903.

1. Intestinal Streptococci, By P. NOBÉCOURT.
2. Obsession and Impulse; A Clinicopsychological Study,
By SERGE SOUKHANOFF.

1. Intestinal Streptococci.—Nobécourt gives a history of the study of streptococci since 1892, and distinguishes between the cocci infecting the child and the adult. In the latter, he speaks of the cholera nostras or choleraiform diarrhœa, the septicopyhæmic form, and the typhoid form; among children, there is the dyspeptic or catarrhal form, infantile cholera, and follicular enteritis. There is also the grave dry cholera. All forms are found to be complicated with pharyngitis, gastritis, bronchopneumonia, nephritis, erythema, and even meningitis; pleurisy, pericarditis, and otitis are rarer complications. All forms of germs are found, but the streptococcus most frequently.

September 30, 1903.

1. Lymphatic Hypersecretion; Retention and Œdema,
By MAURICE LÆPER.
2. Congenital Hypertrophy of the Left Lower Extremity,
and the Left Half of the Scrotum,
By ALBERT MOUCHET.

1. Lymphatic Hypersecretion.—Læper concludes that nephrolymphatic equilibrium may be disturbed in a pathologic organism by many causes which combine to produce lymphatic hypersecretion, and retention or œdema, which are only exaggerations of the condition. When the tissues empty themselves and the kidney responds, there is polyuria as in Bright's disease and diabetes; if not, there are retention and œdema. There is an intimate connection, a synergy between the interstitial eliminatory apparatus and the renal, even in disease. Certain œdemas are the consequences of variations in the composition of the blood and in the activity of the circulatory system. They are true compensatory œdemas, necessary regulators of the physico-chemical equilibrium of the blood in cases of renal insufficiency, as polyuria is necessary when the kidney acts normally. Others are caused by a direct lesion of the filtering cells and are produced particularly in acute nephritides and are, in a way, a determination of the poison to the interstitial capillaries, as in glomerulonephritis. They produce a real spoliation of the blood, just as a polyuria of exclusively renal origin is spoliatory. By the retention they cause, they may determine variations of urinary secretion.

2. Congenital Hypertrophy.—Mouchet draws attention in this case to the fact that the bony structures share in the hypertrophy and that the left pelvis is enlarged. If rest does not help this case, ligature of the femoral artery will be tried, as ligature of the lingual arteries has proved successful in macroglossia.

October 7, 1903.

1. Chloridæmia, and the Cure by Dechloridization in Bright's Disease. A Study of the Action of Dechloridization in Certain Diuretics,
By FERNAND WIDAL, and ADOLPHE JAVAL.
2. Experimental Solar Syndromes,
By LAIGNEL, and LAVASTINE.

1. **Chloridæmia.**—Widal and Javal state that their researches prove that the dehydrating power of a renal diuretic has a remarkable proportion to its power to open the kidney to the passage of chlorides. Their experiments with salt, given to nephritic patients, proved that it increased œdema, and its elimination from the food was followed with immediate loss of weight and diminution of œdema. The daily administration of theobromine, two grammes, also diminished the œdema in a remarkable manner, as well as almost arresting albuminuria and bringing up the general condition of the patients. They speak highly of this drug, and assert that digitalis, potassium nitrate, and squills were greatly inferior or neutral. A mixed diet, the authors agree, without salt, may safely be given to nephritics.

2. **The Solar Plexus.**—Laignel and Lavastine, in their experiment upon dogs, have found that ablation of the solar plexus is a serious operation; though traumatism of the plexus even may cause death. They have called the *solar syndrome of paralysis* the sum of symptoms produced by ablation of the plexus; it may be superacute, acute, subacute, or chronic. The first form they have found to be present in peritonitis, clinically, the second in lead colic; the others in mucomembranous colitis. Certain affections, therefore, may be attributed solely to disturbance of the solar plexus, and not to general systemic derangement.

REVISTA DE MEDICINA Y CIRUGIA DE LA HABANA.

September 10, 1903.

1. Galvanic and Faradaic Currents in the Treatment of Neurasthenia,
By R. P. VENTO.
2. Results of the Rizzoli-Esmarch Operation for Cicatricial Ankylosis of the Mandibulum,
By J. A. PRESNO Y BASTIONY.
3. Contribution to the Study of Infantile Atrophy,
By A. A. ABALLI.

1. **Galvanic and Faradaic Currents.**—Vento emphasizes the value of the galvanic and faradaic current in the treatment of many of the affections productive of the neurasthenic condition and in those cases in which the underlying cause cannot be determined. In the latter class he employs galvanofaradaization according to Erb's technics; one electrode being placed at the nape of the neck and the other upon the forehead, and a galvanic current of from three to five miliampères being applied for from five to ten minutes. The electrodes are then applied to the temples and the current allowed to flow for the same length of time. Finally, the galvanization is terminated by the application of two large electrodes, one to the nape of the neck and the other to the sacrum; a current of ten miliampères being employed. The entire muscular system is then faradaized. In the

galvanization of the head, the author generally applies the negative pole to the forehead and the positive pole to the nape of the neck; changing the direction of the current when the patient complains of a sensation of heaviness or pain in the head. The duration of the current is also regulated by the appearance of these symptoms.

2. **Ankylosis of the Mandibulum.**—Presno y Bastiony reports the case of a child successfully operated on by the Rizzoli-Esmarch method for cicatricial ankylosis of the left mandibulum having its origin in gangrene of the cheek occurring in the course of convalescence from an attack of measles.

3. **Infantile Atrophy.**—Continued article.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

July 12, 1903.

1. Softening of the Brain,
By A. DE BLASI.
2. A Case of Interscapulothoracic Disarticulation,
By CARLO VISCONTINI.
3. Contribution to the Pathogenesis of Bronchopneumonia Following Operations on the Throat,
By FRANCO CARINI.
4. Resection of the Hip for Tuberculous Coxitis, Complicated with Suppuration and Fistulæ, and with Detachment of the Head of the Femur. Primary Union,
By GASPARO MESSINA.
5. A Case of Autostrangulation,
By GINO RIVA.
6. Nocturnal Incontinence and Adenoid Vegetations,
By URBANO MELZI.
7. Tetanus and Carbolic Acid, a Contribution to Bacelli's Treatment,
By G. G. DEPLANO.

1. **Interscapulothoracic Disarticulation for Sarcoma.**—Viscontini reports the case of a man, aged fifty-eight years, with sarcoma of the scapula, in whom this bone was disarticulated with success. This is the two hundred and sixty-second operation of its kind on record. His patient did very well after the operation, was discharged cured, and was in good health a year later. The tumor was a giant-celled sarcoma. Extensive operations should be the rule in malignant tumors of the bones, and conservative procedures cannot be hoped to be of any avail as regards checking these processes.

5. **Autostrangulation.**—Riva reports the case of a man, aged seventy-two years, a driver, who was found dead with a very tight band of cloth around his neck, held in place by a spindle stuck in vertically at the back of the neck. The autopsy and the medicolegal inquiry which followed, established the fact that the man had actually strangled himself by placing this band around his neck and tightening it by turning the spindle until asphyxia supervened. This case is peculiar as regards the mode of death chosen, and it is difficult to understand how this man could resist the tendency to struggle for air during the process of tightening the band. The man was insane and had suicidal mania, and it is possible that in that state he could perform such an unusual act as autostrangulation. A careful analysis of all the details of the case excludes homicide in this instance, and special importance was attributed to certain marks on the hands of the deceased which corresponded to the places where the spindle had been grasped.

6. Adenoids and Nocturnal Incontinence.—Melzi reminds us that adenoids in the pharynx are in some way connected with nocturnal incontinence in children. Various theories have been advanced to explain this connection, but the fact remains that the removal of the adenoid growths causes a cessation of the incontinence. The author reports two striking cases, and advises the practical physician to think of adenoids whenever he meets a case of nocturnal incontinence.

7. Carbolic Acid in Tetanus.—Deplano reports two cases of tetanus cured by the injections of carbolic acid recommended by Baccelli. No other remedies were used. Both cases were very severe. The author concludes that carbolic acid injections should be preferred to any other method of treatment in tetanus.

ROUSSKY VRATCH.

August 16, 1903.

1. On Reduplicated and Adventitious Sounds of the Heart Heard by Direct Auscultation (*To be concluded*),
By V. P. OBRASSTOFF.
2. On Addison's Disease, By N. N. DARKSHEVITCH.
3. On the Radical Treatment of Varicose Veins by Trendelenburg's Method (*To be concluded*),
By P. S. TENTCHINSKY.
4. A Few Words on Local Cocaine Anæsthesia,
By A. P. KRYMOFF.
5. The Influence of the Occupation of Longshoremen (on the Volga) Upon their Health (*Concluded*),
By P. A. LOSHTCHILOFF.

2. Addison's Disease.—Darkshevitch describes a case of Addison's disease in which pieces of skin were removed from the living patient, with his consent, to determine whether any changes had taken place to account for the bronze color. The most plausible theory of the bronze pigmentation of Addison's disease is that which assumes this change to be the result of hyaline degeneration of the walls of the capillaries of the skin, leading to an increased disintegration of the red blood corpuscles in these vessels, and so the deposition of material for pigment formation. All the previous investigations on this question have been carried on with skin from cadavers of patients that had died of Addison's disease. In this case the skin from the living body did not show in any section a hyaline (glassy) degeneration of the capillaries, or any increased destruction of red cells. There was, however, a deposit of brownish pigment in the lower layers of the squamous epithelium and in the connective tissue cells, usually near the vessels. In some places the connective tissue cells were seen to be continuous by means of offshoots with the epithelial layer. The pigment in these latter cells consisted of numerous brownish rounded granules, which did not give the reaction for iron. In the more superficial layers the pigment grew lighter and the granules smaller.

4. Local Cocaine Anæsthesia.—Krymoff has tested the anæsthetic effects of cocaine solutions sterilized in various ways. His experiments included clinical tests and animal tests. He found

that in minor operations the best results were obtained with a 1 per cent. solution of cocaine pasteurized at 60° C. for three hours. Cocaine solutions of the same strength pasteurized at 80° and at 120° C. for two hours and for fifteen minutes respectively, gave far less satisfactory anæsthesias. On experiments on animals (frogs) by exposing the sciatic nerve and testing the rapidity and efficiency of anæsthesia with these different solutions, that pasteurized at 60° C. for three hours gave the best results. Pasteurized solutions gave anæsthesia lasting an hour or two, while sterilized solutions (boiled at 100° C.) gave a freedom from pain for from twenty to thirty minutes. The pasteurized solutions have the advantage of being sterile and of not decomposing as do solutions that have been boiled. The pasteurization is conducted as follows: the required strength of cocaine is dissolved in sterile water, the solution is poured into sterile glass bulbs, and then the bulbs are sealed hermetically and the solution heated to 60° C. for three hours. The author advocates the use of local cocaine anæsthesia whenever possible in radical operations on inguinal herniæ, and recommends a special method of injecting the cocaine. He injects it deeply, along the course of the ilioinguinal nerve, and uses six or seven syringefuls of the 1 per cent. solution.

MEDICAL NEWS.

October 24, 1903.

1. The History of the Tuberculosis Work at Saranac Lake,
By E. L. TRUDEAU.
2. Congenital Hypertrophic Stenosis of the Pylorus,
By B. G. A. MOYNIHAN.
3. Timely Operation in Primary Appendicitis,
By WILLIAM H. WATHEN.
4. On the Hypodermic Use of Adrenalin Chloride in the Treatment of Asthmatic Attacks,
By JESSE G. M. BULLOWA, and DAVID M. KAPLAN.

1. The Saranac Sanitarium.—Trudeau's paper is one of very great interest, and this for more reasons than can be detailed here. The author traces the history of the sanitarium from the time he went into the Adirondack wilderness thirty years ago, in an attempt to prolong his own life, up to the present time. The triumphant success of his enterprise is known to most physicians. The story of the hardships endured and of the difficulties overcome is full of inspiration, and should be more widely known. The paper, however, covers eleven pages, and is well illustrated and we cannot attempt to condense it. There is one point that must interest every one, and that is: What success attends the sanitarium treatment of tuberculosis? Exact results are difficult to express in figures. Trudeau, however, gives the following quotation from the report of the resident physician: "Of the 1,500 cases under consideration, which have been discharged from two to seventeen years, 434 could not be traced, leaving 1,066 which have been traced. Of these, 46.7 per cent. are living. Of these, 31 per cent. are known to be well at present, in 6.5 per cent. the disease is still arrested, 4 per cent. have relapsed, 5.2 per cent. are chronic invalids, and 53.3

per cent. are dead. As to the influence of the stage of the disease on the permanency of the results obtained, he found 66 per cent. of the 258 incipient cases discharged are well at present. Of the 563 advanced cases 28.6 per cent. are well, and of the far advanced cases 2.5 per cent. only, remain cured." Of specific medication there is none employed. Tuberculin has been given a trial. Its use has been found inadmissible in the active types of disease, and it has been confined almost entirely to incipient cases and to advanced cases of the subacute type. On the whole, it would seem that tuberculin has a slight, though appreciable, influence for good in pulmonary tuberculosis. The paper should be read by all interested in tuberculosis.

2. Congenital Stenosis of the Pylorus.—Moynihan reviews the history, symptomatology, morbid anatomy, ætiology, and treatment of this not very rare but, up to lately, seldom recognized affection of the pylorus. The diagnosis is not easy in the early stages of the disease. If, however, in young infants (from a few days to a few weeks' old) vomiting is found to occur soon after a meal, and especially after a large meal or a meal quickly taken; if all fluids are alike rejected; if constipation is present, and if, on examination of the abdomen it is found shrunken and hollow, and the stomach is seen to be dilated or hypertrophied with visible waves of peristalsis hastening across it, and if, finally, a transverse epigastric tumor is found, the diagnosis of pyloric stenosis can no longer be in doubt. Two general forms of treatment are available, medical and surgical: (1) Medical treatment consist in lavage and feeding through a stomach tube. Incredible as it may seem, subsidence of symptoms and eventual recovery are at times possible by such means. (2) Surgical intervention will, however, be frequently imperatively indicated. Three operations may be resorted to: (a) Loreta's operation (pylorodiosis or rapid dilatation of the pylorus); (b) pyloroplasty; (c) gastroenterostomy. Which of the three operations will finally prove to be the generally accepted procedure it is impossible to say. The statistical results, up to the end of 1902, were as follows: Pyloroplasty had been performed three times, successfully; in a fourth case, recorded by Sonnenburg, a pyloroplasty was performed, and as the relief was imperfect, a gastroenterostomy was subsequently performed with good results. This patient was six years old, and the case is therefore hardly in the same category as those occurring in infancy. Gastroenterostomy, always anterior, had been performed 9 times; 5 patients recovered, 4 died. In one of these death was due to acute obstruction caused by a Murphy button which had been used to effect the anastomosis. Loreta's operation had been performed 9 times with 7 recoveries.

3. Timely Operation in Primary Appendicitis.—Wathen urges that every case of primary appendicitis should be subjected to operation before the disease has extended beyond the appendix or before complications have arisen. The author asserts that in every case of appendicitis in which recovery ensues, one or more strictures in

the calibre of the appendix remain. These strictures are comparable to the strictures that follow inflammatory disease of the urethra, and it is to them, to a great extent, that subsequent attacks are due. After a case has progressed beyond the "timely stage," it will often be safer to wait until the abscess has become completely walled off.

BOSTON MEDICAL AND SURGICAL JOURNAL.

October 22, 1903.

1. Further Observations on Cervical Dislocation and Its Reduction, By G. L. WALTON.
2. Lesions That Augment the Development of Tetanus and Other Infections in Gunshot Wounds, By LOUIS A. LAGARDE.
3. The Plague of Athens, By CHARLES GREENE CUMSTON.
4. The Condition of the Vasomotor Neurones in "Shock," By W. T. PORTER, and W. C. QUINBY.
5. A Hitherto Undescribed Membrane of the Eye and Its Significance, By FREDERICK HERMAN VERHOEFF.

1. Cervical Dislocation.—Walton asserts that cervical dislocation occurs more frequently than is generally supposed, and that the results of the injury are nearly always susceptible of speedy, safe, and complete amelioration. The limit of time after which operation is contraindicated has yet to be determined; it certainly exceeds six months. The symptoms of the condition are reviewed. We note only that the condition is to be distinguished from torticollis and tuberculous caries of the vertebræ. The diagnosis need not be considered here as, with moderate care, mistakes should not occur. Three methods of treatment have been proposed: (1) Reduction by traction, with or without abduction, and rotation. (2) Reduction by abduction and rotation, but without traction. (3) Reduction by dorsolateral flexion, combined, if necessary, with slight rotation. This last method, in the author's opinion, is the best. The employment of traction is a futile measure. Not infrequently reduction takes place spontaneously, during sleep, at other times it occurs accidentally during the relaxation produced by an anæsthetic. In seven cases observed by the author reduction took place as follows: two reductions occurred in sleep; three during etherization, and two were effected by operation.

2. Gunshot Wounds.—Lagarde devotes most of his space to the consideration of the histological anatomy of gunshot wounds. Incidentally he points out the lesions which favor the development of tetanus and infection in general. The severity of gunshot wounds depends on (1) the sectional area of the bullet, (2) its velocity, and (3) the resistance which it encounters. The carrying of foreign bodies into wounds, by the impact of a bullet, adds in itself but little to the likelihood of infection. The two chief lesions, consequent on gunshot wounds, that especially predispose to infection, are hæmatomata and the fissuring of the tissues and the disturbance of the muscle or tissue fibres. The author recounts the results of a number of experiments he has conducted upon animals in order to elucidate his views. He holds that the conclusions to be drawn from his studies should modify the ordinary methods of treating gunshot wounds. All radical

methods of treatment should be abandoned, and no measures should be employed in the vain attempt to disinfect the channel made by a bullet. A simple dressing will give the best results.

3. **The Plague of Athens.**—Cumston's paper refers to the plague that appeared in Athens in 429 B. C. The author gives a translation of Thucydides's description of the symptoms. As to the nature of the pest of Athens there is wide difference of opinion. The author considers in detail the possibility of its having been either bubonic plague, typhus fever, or smallpox. He concludes by saying that the plague of Athens should be considered as a special epidemic disease now extinct.

4. **Shock.**—Porter and Quimby report some experiments which have led them to conclude that exhaustion of the vasoconstrictor neurones cannot be considered the essential cause of the symptoms termed shock.

5. **A New Eye Membrane.**—Verhoeff announces these conclusions: In the pigment layer of the retina there is a fenestrated membrane, identical in structure and staining reactions with the membrana limitans externa. The rods and cones are not nervous elements, but modified ependymal cells, and are analogous to sensory epithelium. The limiting membrane of the rosettes of glioma retinae is a fenestrated membrane similar in every way to the membrana limitans externa, and the rosettes correspond to the neuroepithelium of the normal retina. The structure of the limiting membrane of rosettes explains why they assume their characteristic spherical and spiral-like forms. "Neuroepithelioma retinae" is no more suitable than "glioma retinae" for the class of tumors to which these terms have been applied.

October 29, 1903.

1. The Relation of Laboratory Research to the General Practitioner of Medicine, By HORACE D. ARNOLD.
2. Pneumothorax Associated with Fracture of the Ribs. Report of Two Cases, By FRED T. MURPHY.
3. Some Observations on X Ray Therapeutics in Skin Diseases, By FREDERICK S. BURNS.
4. Record of Parasitic Infections in the Philippines, By W. J. CALVERT.

2. **Pneumothorax.**—Murphy reports two severe cases of pneumothorax complicating fracture of the ribs. Such cases are rare. The cases reported by the author are the only two to be found in the records of the Massachusetts General Hospital for the past twenty years. The author discusses the mechanism of the formation of pneumothorax, the symptomatology, and the treatment. Brief abstracts are also given of a number of cases reported in the literature. Little need be said with regard to diagnosis since, with moderate care, mistakes should be impossible. There are the physical signs of air in the pleural cavity and the symptoms of more or less pronounced shock and dyspnoea. In both the cases reported almost instant relief from these symptoms was obtained by plunging a large cannula into the af-

fected pleural cavity and allowing the air to escape. The expansion of the affected lung, in both instances, occurred almost immediately.

3. **The X Ray in Skin Diseases.**—Burns reports the results obtained at the Massachusetts General Hospital with the x ray in the treatment of skin diseases. In all, one hundred and fifty cases were treated. The author is of opinion that tubes of low vacuum are the best for therapeutic purposes. The author's experience seems to show: (1) That it is a waste of time to treat with the x ray, with the hope of cure, all epitheliomata and carcinomata that extend below the cutaneous surface, either through continuity or by infiltration. (2) That in the treatment of epithelioma constant and encouraging results may be expected. (3) That tubercular lesions of the skin are often much benefited. Lupus is often stubborn to treatment. Scrofuloderma usually yields quite readily to the x ray. (4) That the x ray is of decided value in the treatment of folliculitis of the beard, psoriasis, and chronic eczema.

AMERICAN MEDICINE.

October 24, 1903.

1. Treatment of Abscess of the Liver (*Illustrated*), By THOS. L. RHOADS.
2. Injection of Paraffin for the Correction of Deformities (*Illustrated*), By A. W. MORTON.
3. The Susceptibility of the Negro to Tuberculosis, By THOMAS D. COLEMAN.
4. Hernia of the Vermiform Appendix and the Removal of the Appendix During Operations for Right Inguinal Hernia, By JOHN G. SHELDON.
5. Funic Pulsations: When to Ligate the Cord, By WM. HARMAR GOOD.
6. Hay Fever: A Discussion of Our Present Knowledge of the Disease—with Special Reference to Ætiology and Therapy, By RAYMOND WALLACE.

1. **Abscess of the Liver.**—Rhoads bases his remarks on the study of sixteen cases of abscess of the liver complicating dysentery, on which he has operated, and upon the study of a still larger number of cases which did not come to operation. When abscess of the liver is suspected the usual practice is either to attempt its localization by aspirating, or to temporize until the abscess is of such size that its location is manifest. The author asserts that neither of these methods should be followed. An exploratory incision should be resorted to at once. Through this incision the liver may be readily palpated and a little experience will enable the operator to locate even a deep abscess. Pus having been located, it can be evacuated by only two routes: Through the exploratory incision or through the chest wall. (1) Evacuation through the original incision. The field of operation is carefully walled off with gauze; the capsule of the liver incised, and through this last wound a broad ligament clamp is pushed into the abscess cavity and the pus is evacuated. Fresh gauze is now introduced to protect the surrounding tissues from contamination and the abscess cavity is drained. If there is more than one abscess the procedure just described must be repeated. (2) Evacuation

through the chest wall. If the abscess is on the upper and posterior surface of the gland it cannot be reached through the exploratory incision in the anterior abdominal wall. Therefore the following method must be employed: The chest wall opposite the accumulation of pus is nicked with the knife. The exploratory incision is closed and a new incision is made at the site indicated by the nick. The abscess is evacuated as already described. The author discusses the method he recommends of treating liver abscesses in great detail. We have only attempted to indicate the general plan. For the treatment of the dysentery nothing equals in efficiency sweet oil. This statement is based on the study of 800 cases treated in the Government hospital at the Presidio, Cal. The diet is of the greatest importance. Milk and soups made with milk should be absolutely forbidden.

2. **Paraffin Injections.**—Morton reports twenty-three cases in which he has used paraffin for the correction of deformities. He calls special attention to the fact that by the end of about four months the injected paraffin is more or less completely removed and its place is occupied by organized tissue. A number of illustrations are given which show the gradual development of this new tissue. The author, in his own practice, uses a paraffin with a melting point of about 109° F.

3. **The Negro and Tuberculosis.**—Coleman asserts that before the war tuberculosis was almost unknown among the slaves. At present the disease is exceedingly common among negroes, and its prevalence is rapidly increasing. This condition of affairs is due, not so much to a special predisposition of the negro race for tuberculosis, as to the following causes: Bad hygiene, poor and insufficient food, immorality, and exposure to the inclemencies of the weather. There is danger of the race becoming exterminated unless the present condition of things is remedied. The author asserts that the only thing that will have any material influence in checking the ravages of the disease will be the gradual education of the negro race both on the material and moral side.

5. **When to Tie the Cord.**—Good asserts that the funic pulsations are of foetal origin and that, therefore, the first firm uterine contractions should be regarded as the indication for the ligation of the cord.

6. Drainage, Sewerage, and Water Supply of New Orleans, By GEORGE G. EARL.
7. The Purification of Water Supplies by Slow Sand Filtration (*Concluded*).

1. **Perineal Prostatectomy.**—Young gives his experience with the various operations for the relief of prostatic hypertrophy and his objections to some of them. The bulk of his paper, some ten pages, is devoted to the description of perineal prostatectomy as performed by himself. The paper is profusely illustrated, so that the author's method may be readily understood. Omitting all details we give the essential of the procedure. The method aims to attain two results: (1) To preserve the integrity of the ejaculatory ducts, and (2) to facilitate enucleation by having the prostate drawn well down into the wound. Two special instruments are needed, first, a prostatic tractor and, secondly, a pair of special lobe forceps. The prostatic tractor is an instrument which, when closed, resembles an ordinary urethral sound with a very short curve. It is made in two pieces, an outer hollow tube which is molded at one end to form the proximal half of the beak and an inner rod, whose end is molded to form the distal half of the beak. By rotating the inner rod through a half circle the curved end of the tractor becomes T-shaped. The forceps is so constructed that it approximately fulfils the purpose of volsella forceps. The prostate is exposed and the urethra opened at its distal end. Through this opening the tractor is introduced, and the inside rod rotated. The prostate is now dragged well into view. Two vertical incisions are made, one to each side of the tractor, through the capsule of the prostate and through these two incisions the lateral lobes are enucleated. The middle lobe is removed by delivering it through one of the cavities left by removing the lateral lobes. It should be noted that the portion of tissue included between the tractor in the urethra and the portion of prostatic capsule left between the verticle incisions through which the lateral lobes were removed is left undisturbed. In this way the ejaculatory ducts are preserved. The author claims the following results: "I have now operated on 15 cases with the prostatic tractor, and generally by the technic described above. All of these cases are living and well. All can empty their bladders completely and none use the catheter. Incontinence of urine has never been more than a temporary affair, and the perineal fistula has closed in all, except the recent cases. One case, 69 years of age, with a tremendous prostate, who had led a catheter life for ten years, is now, seven weeks after the operation, voiding urine at intervals of three hours. Most of my cases being of such recent date, I shall not lengthen this paper by going into details, especially since it is too early to speak of permanent results. As to the important question of sexual powers, I have determined that the power of erection is already present in some; that ejaculation is apparently normal, and that the semen obtained by ejaculation contains numerous actively motile spermatozoa and the lecithin bodies which are found in normal prostatic secretion. Their

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

October 24, 1903.

1. Conservative Perineal Prostatectomy. A Presentation of New Instruments and Technics (*Illustrated*), By HUGH H. YOUNG.
2. A Case of *Ærogenes Capsulatus* Infection of the Neck, By LOUIS LEROY.
3. Infection of the Gall Bladder and Biliary Duct Contents, By EDWIN RICKETTS.
4. Sarcomatous Transformation of Myomata, By THOMAS S. CULLEN.
5. A Case of Acute Disseminated Encephalomyelitis, Presenting the Clinical Picture of Multiple Sclerosis, By JOSEPH L. MILLER.

presence show that the bridge of prostatic tissue surrounding the ejaculatory ducts, which I have been careful to leave intact, is furnishing a part of the fluid ejaculated."

4. Sarcomatous Transformation of Myomata.—Cullen reports observing a number of cases in which sarcomatous transformation of myomata occurred. The operative significance of such pathological findings may be summarized thus: (1) Whenever sarcoma or carcinoma may coexist with myoma panhysterectomy is imperative—not amputation through the cervix. (2) Bisection of the uterus is contraindicated where there is a possibility of a malignant growth developing in or associated with the myomatous uterus. (3) In every case of hysteromyomectomy it will be advisable to have an assistant open the uterus immediately on its removal to determine if carcinoma of the body exists and to find out whether the myoma has become sarcomatous. If malignancy is detected the cervix can thus be removed without delay.

MEDICAL RECORD.

October 24, 1903.

1. Prostatectomy and Galvanocautic Prostatotomy (Bottini's Operation): Their Present Status in the Radical Treatment of the Hypertrophied Prostate Gland,
By WILLY MEYER.
2. The Röntgen and Finsen Rays; Electrolysis; Galvanism; Faradism; High-tension Discharges, and Diagnostic Illumination,
By SINCLAIR TOUSEY.
3. The Choice of Method for the Relief of Retroversion and Retroflexion,
By JOHN VAN DOREN YOUNG.
4. The Non-medicinal Treatment of Constipation,
By SAMUEL G. GANT.
5. The Frequency Wave of Epileptic Seizures,
By WILLIAM P. SPRATLING.

1. The Radical Treatment of the Hypertrophied Prostate.—Meyer believes that of the two methods of influencing the prostate gland by operation, the direct method and the indirect, the former should first be employed and then, if direct attack upon the prostate fails, resort should be had to operation on the testicles or the vasa deferentia. In the present paper he confines his remarks to prostatectomy and galvanocautic prostatotomy (Bottini's operation). Meyer's conclusions are: (1) The operations making a direct attack upon the enlarged prostate gland are preferable to those aiming to exert an indirect influence. (2) We have two useful procedures for the direct treatment of the enlarged prostate gland—i.e., prostatectomy and galvanocautic prostatotomy (Bottini's operation). (3) In selecting the method indicated in the given case we must individualize and be guided by anatomical, pathological, and social conditions. (4) Prostatectomy is the most radical and most surgical procedure; it should be the operation of choice whenever promising success. (5) Perineal prostatectomy offers advantages over the suprapubic method, since it enables the operator to do the operation under the guidance of his eyes. (6) Debilitated patients who seem unfit subjects for the more radical operation, should not be at once relegated to catheter life, nor should prostatectomy be performed in order "to let them down easy"; they

should be advised to have Bottini's operation done if possible. (7) Surgeons should familiarize themselves with both methods, in order to be in a position to do justice to their patients. (8) It is the duty of those refusing to do Bottini's operation under any circumstances, nevertheless to advise the latter in cases in which the patient asks for more radical relief and the operation with which the knife seems contraindicated. (9) Further carefully compiled statistics as to the late results of both operative procedures—preferably in the hands of one man—are desirable in that they will increase our knowledge with reference to the selection of the proper method in the individual case.

2. Office Electric Plant.—Tousey gives a description of a practical electric outfit designed to meet the office requirements of the general surgeon. Those intending to provide themselves with a full line of electrical appliances cannot do better than to read the original paper. The following points are covered: The Röntgen and Finsen rays; electrolysis; galvanism; faradism; high tension discharges, and diagnostic illumination.

3. The Treatment of Retroversion and Retroflexion.—Young draws fourteen deductions at the end of his paper. Of these we abstract eight. (1) Retroversion and retroflexion are never simply malpositions of the fundus, but complex changes in the relation of the whole uterus to the other structures in the pelvis and to the pelvic wall. (2) (6) Non-operative measures are applicable to acute traumatic and replaceable non-complicated cases and depend for their value upon relief of pelvic engorgement, the restoration of normal circulation and the return of normal elasticity and tone to the ligaments and muscular structures. (3) (7) The Alexander operation has a limited field of usefulness, and is of value only when there is retroflexion and the other ligaments are strong enough to support the uterus, with proper relief of other complications. It must never be forgotten that traction on the round ligaments tends to lower the plane of the uterus. (4) (8) Ventral suspension, when performed in combination with other procedures, does relieve the malposition, and prevents a recurrence of the same. Its dangers, when properly performed, are small, if any, in subsequent pregnancies. The advantages of the operation are the ease and rapidity of its performance. (5) (9) Ventral fixation is applicable only when the patient has passed the child-bearing period. (6) (10) The ideal procedure is as follows: Curettage repair of injuries to the cervix, retrovaginal sæptum and anterior wall of the vagina. Laparotomy. Sacrosuspension. Bissell operation. The disadvantages are the length of time necessary for the operation and its difficulty of performance in fat subjects. (7) (11) In place of the Bissell operation, a ventral suspension may be substituted. This, I believe, is wise when many adhesions have been broken up and the posterior surface of the uterus is denuded of peritoneal covering, or the patient's condition demands haste. (8) (12) In nulliparæ a pessary should be worn for six months to prevent traction on the uterosacral ligaments until they have regained their tone. The action of the pessary is due to the fact that resting on the superior surface of the symphysis the lower

segment of the uterus is held upward, and the strain taken off the uterosacral ligaments. The rectocele, when no lacerations exist, is in this manner lessened.

4. The Non-Medicinal Treatment of Constipation.—Gant says that the non-medicinal treatment of constipation consists in the education of the patient, the administration of enemata when necessary, massage, electricity, divulsion or division of the sphincter muscle, and valvotomy. He gives the indication for each one of these procedures and describes the method of employing them. Valvotomy, according to the author's method and by means of the instruments he has devised, is gone into at some length. While he considers the operation to be one of undoubted utility, yet he does not believe that it is indicated so often as its enthusiastic advocates would lead one to believe. It is a measure that can be employed in office practice, and the patient may continue his usual routine of living while under treatment. The author states that in his experience the results obtained from the non-medicinal treatment of chronic constipation are by far more satisfactory and permanent than those following the use of drugs.

BRITISH MEDICAL JOURNAL

October 17, 1903.

1. The Purposes and Maintenance of Our Universities.

By SIR V. HORSLEY.

2. Medical Education and Legislation,

By SIR W. S. CHURCH.

(Seventy-first Annual Meeting of the British Medical Association).

Section of Obstetrics and Gynecology.

3. Discussion on the Pathology and Treatment of Tuberculosis of the Uterus and Annexa,

By J. H. TARGETT, J. A. C. KYNOCH, and Others.

4. Diagnosis and Treatment of Uterine Fibroids,

By M. CAMERON.

Section of Surgery.

5. A Further Series of 32 Cases of Total Extirpation of the Prostate for Radical Cure of Enlargement of that Organ,

By P. J. FREYER.

6. On a Method of Treating by Operation Paralysis of the Upper Root of the Brachial Plexus (Erb-Duchenne Type),

By A. H. TUBBY.

7. The Pathology and Treatment of Hallux Rigidus, Hallux Flexus, and Hallux Extensus,

By A. H. TUBBY.

8. Phelps' Operation for Club-Foot,

By E. M. LITTLE.

9. Cystic Tumors of the Mammæ: Their Removal by "Forcible Massage" without Incision.

By H. SNOW.

10. The Substitution of Temporary and Absorbable for Permanent and Unabsorbable Sutures in the Operations on Bone,

By R. H. A. WHITELOCKE.

11. The Surgical Treatment of Chronic Gastric Ulcer,

By C. M. MOULLIN.

12. The Open Air Treatment of Surgical Tuberculosis,

By E. DEANESLY.

1 and 2. Introductory Addresses.

3. Tuberculosis of the Uterus and Annexa.—

Targett says that the female genital organs may become infected with tubercle in the following ways: (1) Infection through the blood stream, probably from lymphatic glands elsewhere in the body, but which source is undiscoverable. The Fallopian tubes are "seats of election" for

tubercle. (2) Infection from the peritonæum: (a) from a general miliary tuberculosis of the peritonæum; (b) localized caseous tuberculous perimetritis may result from ulceration of the bowel, and the lesion spread to the appendages; and (c) the fluids in the peritoneal cavity may convey organisms into the tubes through the patent abdominal ostia. (3) Direct infection of the internal genital organs from adjacent parts other than the peritonæum. This is rare. (4) Infection from external sources, such as sexual intercourse, the use of instruments, or contamination with tuberculous fæces or urine. The Fallopian tubes are the organs most frequently affected in genital tuberculosis—they are involved in 90 per cent. of the cases. The ampullary portion of the tube is the chief seat of disease, because of its greater vascularity. Three forms of tuberculous salpingitis are defined, according to whether the lesion is in the miliary or progressive stage, the caseous or degenerative stage, and the fibroid or quiescent stage. The uterus may be similarly affected; in the majority of cases it is infected by extension of disease from the tubes, rarely from the cervix. Caseous tuberculous perimetritis may exist, with suppuration in Douglas's pouch. In making a diagnosis of tuberculous salpingitis the following points are of value: (1) The previous history of the patient, especially as to past tuberculous lesions. (2) The absence of other adequate causes—as salpingitis in a virgin. (3) Sterility. (4) Amenorrhœa and menorrhagia sometimes are present. (5) Dysmenorrhœa is a very common—often the chief—complaint. (6) Absence of pelvic pain. (7) Nodular feel of the diseased tubes. (8) Detection of tubercle bacilli in the vaginal discharge. *Treatment.*—Laparotomy often is beneficial in cases of diffuse or localized tuberculous ascites. When the tubes are found to be thickened they should be removed if not too densely adherent. Tuberculous pyosalpinx with dense adhesions to the intestine is best treated by resection of the gut. When the uterus is affected it becomes very friable and serious ruptures may result from dilating and curetting. Kynoch states that primary tuberculosis of the cervix uteri is more common than has been thought. It may be: (a) an ulcerating form, with sharp edges and soft floor, the lack of induration distinguishing it from carcinoma; (b) miliary tuberculosis; and (c) a papillary form involving the endometrium of the cervix, and characterized by soft, bright red, easily bleeding, finger-like processes. Where no signs of tuberculosis are found elsewhere in the body, the best treatment is hysterectomy, palliative treatment being reserved for secondary cases.

4. Uterine Fibroids.—Cameron, in a short article, brings out the following points: A fibroid growing from the fundus uteri or developing within the fundus, has usually the shape of a bullock's heart, but must be distinguished from double uterus. Calcification is more common after the menopause—before this it is usually found in pedunculated subserous growths. The flow in many cases is metrorrhagic in character, with marked anæmia. In pregnancy, if the fibroid is on the fundus and has a pedicle, it is not

likely to interfere with the course of pregnancy. If lying in the pelvis or situated on the cervix, it may form a more serious complication, especially during labor. Hysterectomy is the most effective mode of treatment of fibroids, but should only be performed after all other methods have been deemed insufficient or have failed. Enucleation has been abandoned—likewise removal of the ovaries and tubes. Indications for operation are where the tumor is impacted and producing serious pressure symptoms, or is large and increasing rapidly. Myomectomy alone is reserved for cases with a pedicle, and may be performed either through the vagina or abdomen.

5. Extirpation of the Prostate.—Freyer reports a further series of thirty-two cases of enlargement of the prostate in which he successfully performed his suprapubic operation for extirpation of that organ. He has now on record 51 completed instances of the operation, the patients averaging 68 years of age, and the prostates $3\frac{1}{2}$ ounces in weight. The vast majority had entered on complete catheter life. Of these 46 have been absolutely and completely successful, both immediately and remotely. In no case has relapse, stricture, fistula, hæmorrhage, or septicæmia occurred. There were 5 deaths in the 51 cases: 2 from mania, 1 from heatstroke, 1 from coma, and 1 from pneumonia. The last 19 cases have all been successful.

7. Hallux Rigidus.—Tubby states that in cases of hallux rigidus, flexus, and extensus there is one common underlying cause—an osteoarthritic condition of the first metatarsophalangeal joint. The only effectual operative treatment is to remove the head of the first metatarsal bone, dissect out the portion of hypertrophied and inflamed tissue between the sesamoid bones, and if the surface of these bones is ulcerated, to dissect them out from the tendons in which they lie. In many cases which appear to be entirely rigid when passively extended, the movements become under an anæsthetic entirely free, thereby evidencing that the apparent loss of movement is reflex. In less painful cases careful attention to the size of the boots is effectual—ample room being allowed to the big toe.

9. Massage in Mammary Cysts.—Snow has found that cysts of the mammæ are due to the retention and decomposition of milk. This is quite apart from pregnancy, the patients being single or not having been pregnant for years. Until now excision of the cyst has been the universal custom: he finds, however, that such operations are unnecessary where the cyst is fairly young. The breasts of these patients are full of milk; squeeze this out completely by means of forcible massage—it must be done under anæsthesia—and all the trouble at once vanishes. The first stage of the affection is a chronic inflammation—a “mazitis” as the author terms it. This usually goes on to cyst formation, but it may assume the far graver aspect of cancer, in which case the author's procedure would be of great prophylactic value. He reports a series of ten cases in which forcible massage was successfully carried out.

10. Bone Suture.—Whitelocke holds that the present day system of employing permanent and unabsorbable sutures in operations on bone, is over-elaborate and unnecessary. For some years he has done away with wire, substituting for it ordinary catgut or kangaroo tendon. In five cases of fracture of the patella and two of the olecranon, the results have been entirely satisfactory. It is not the firm suturing of the fragments of fractured bones together that is necessary for firm union, and an absorbable and non-irritating substance is surely preferable to a metallic one which may cause trouble later on.

11. Gastric Ulcer.—Moullin states that the reasons for the persistence and extension of gastric ulcer are local and local only; so that, if taken in time, comparatively simple local measures will effect a cure. Patients with chronic ulcer of the stomach are never free from pain for long. The actual position of the ulcer on the wall of the stomach can rarely be ascertained before the operation. But on the other hand, as soon as the abdomen is opened, simple inspection of the serous coat of the stomach is sufficient to show where the ulcer is. Whenever practicable the ulcer should be dealt with directly. The ideal treatment is by excision. But if the ulcer is multiple, if it is near the pylorus or cardia, if very large or deep or densely adherent, gastrojejunostomy may be the only resource. The success of the operation, both as regards the actual rate of mortality and the completeness of recovery, is simply dependent upon the condition of the ulcer and the state to which the patient has been reduced at the time of the operation.

LANCET.

October 17, 1903.

1. On the Importance of Postgraduate Study,
By SIR W. S. CHURCH.
2. On Charles White, F. R. S. A Great Provincial Surgeon and Obstetrician of the Eighteenth Century,
By C. J. CULLINGWORTH.
3. The Quantitative and Qualitative Relations of Toxine and Antitoxine,
By E. F. BASHFORD.
4. A Case of Upward Dislocation of the Foot,
By P. W. SARGENT.
5. Notes on a Case of Renal Calculus,
By H. E. B. PORTER.
6. The Treatment of Sciatica,
By J. M. CLARKE.
7. A Case of Infantile Acute Eczema; Hæmatemesis; Duodenal Ulcer; Death,
By H. H. BORLAND.
8. Three Cases of Perforated Gastric Ulcer; Recovery After Operation,
By F. WALLIS.
9. A New Ethyl Chloride Apparatus and Method,
By G. W. B. DANIELL.
10. Two Cases of Cæsarean Section,
By A. H. N. LEWERS.
11. On the Ætiology of Bubonic Plague: An Epidemiological Contribution,
By J. A. THOMPSON.

1 and 2. Introductory Addresses.

3. Toxine and Antitoxine.—Bashford's conclusions, drawn from his experimental observations on toxines and antitoxines, are as follows: (1) The volume of toxine containing the lethal dose can be converted into one no longer lethal within the time limit, by diminishing the total volume by a small, but measureable, fraction of

the whole. (2) A measureable quantity of toxine solution can be borne without the production of any symptoms. (3) The poisonous action of the lethal dose of toxine may be abolished within the time limit by the addition of a very small quantity of antitoxine. There is a qualitative reduction in the toxicity itself, but no quantitative reduction as referred to in conclusion 1. (4) When the toxic power of a quantity of toxine has been reduced by antitoxine to such an extent that no symptoms appear a measureable degree of toxic power is still potent qualitatively. (5) The lethal dose is separated from the non-lethal, not by a hard and fast line, but by a zone wherein are contained appreciable fractions of the lethal dose. (6) In mixtures of toxine and antitoxine in such proportions respectively that a lethal issue occurs and does not occur, the margin between the toxic powers of such mixture is not sharp, but is a zone, and the actions standing at the upper and lower limits of this zone differ from each other by a measureable fraction of the total toxicity. (7) One volume of antitoxine solution does not always fully account for one volume of toxine solution when mixed in varying multiples. (8) The above facts indicate the limitations in determining the volume of the lethal dose of toxine and the volume of antitoxic serum sufficient to abolish its lethal action. If the volumes are multiplied a hundred fold a qualitative indication of the error present in the original determination is obtained, but no deductions can be made as to the quantitative and chemical relations between the toxine and antitoxine. (9) The smallest quantity of antitoxine which neutralizes the lethal action of a unit dose of toxine, modifies the action of higher doses of toxine; that is, one and the same volume of antitoxine has quantitative relations with more than one volume of toxine.

4. Upward Dislocation of the Foot.—Sargent reports a case of this condition, occurring in a man aged forty-six years, who fell a distance of nine feet, alighting on the soles of his feet, falling to the ground immediately, and twisting his foot. The accident is one of extreme rarity, its salient features being that the astragalus, retaining its normal relations with the foot, is driven upwards between the tibia and fibula without fracture of either bone. Among the points of interest were (1) The increase in the intermalleolar measurements; (2) the prominence of the heel; (3) the approximation of the malleoli to the plane of the sole; (4) the absence of fracture; (5) that the injury was not compound; and (6) the extreme ease with which reduction was effected; *i. e.*, by simple traction under an anæsthetic.

6. Sciatica.—Clarke warmly recommends the Weir Mitchell method of treatment of sciatica by immobilization of the affected limb by means of the long splint. In mild cases and those seen soon after the onset it is hardly necessary. The splint must check motion at the hip and the knee. The leg is first evenly bandaged with a flannel bandage from the hip to the knee; a long splint is then applied, the knee being slightly flexed, and the heel carefully supported. The splint is left on for three days, when it is taken off, the limb massaged, and the splint reapplied. This is done once

a day thereafter, until the patient has been free from pain for some days, after which the splint is worn only at night for about a week. When the patient first gets up he should stand or lie—not sit down. In twelve consecutive cases so treated, cure resulted in ten. The average duration of treatment was twenty-five days. The restraint of the splint is very irksome at first, and the pain may be considerable for twenty-four hours. Morphine is often necessary on the first night. Careful feeding is imperative, as flatulent dyspepsia is common. The bed must be flat, even, and firm.

7. Infantile Eczema.—Borland reports the case of an infant who, at the age of two months, began to suffer from eczema capitis. At eight months the eczema exacerbated, involving the head, face, neck, and trunk. Treatment was of no avail; the child sank rapidly and the eruption became pustular and impetiginoid. Hæmatemesis and melæna occurred, and the child passed into a state of collapse, dying soon after. At the autopsy there was found a perforated round ulcer of the duodenum. This was thought to be due to the same contributory causes that obtain in cases of extensive burns: destruction of the function of the skin, and entrance of the soluble fibrin ferment into the circulation, conducing to the formation of emboli. Duodenal ulcers also occur after frost bite and in erysipelas, pemphigus, and septicæmia.

11. Fleas and Bubonic Plague.—Thompson's observations on plague, based upon two epidemics which have occurred at Sydney among whites, have led him to opinions regarding the diffusion of the disease which differ from those held by most authorities. From the teachings of the first epidemic he concluded that neither direct nor indirect communication with the sick played any part in diffusion of the disease, that place-infection played no part in maintaining it, and that the sole source of infection for man lay in rats affected with it. Acting on these views, during the second epidemic he did not isolate the sick or segregate persons who had been exposed to infection. The results were satisfactory in every way, with a saving of much trouble, time, and anxiety.

In the rat, plague is a septicæmia. The virus can reach man in two ways: (1) by contamination of his food; and (2) by casual contact with his skin. Clinical evidence dismisses the first supposition: the pathological evidence that the infection is commonly received by inoculation in the skin is direct, uniform, and clear. There is, then, only one plausible—even, possible—explanation—inoculation can be brought about only by a suctorial parasite. On the whole, the parasite which is best fitted to fulfil all the requirements of the case is the flea. Nuttall objected to this view on the ground that his experiments on transmission were negative, that bacilli underwent rapid diminution of virulence when taken into the stomach of fleas, and finally that rat fleas did not bite man. But each and every one of these statements has been successfully controverted. The disease has been successfully transmitted by fleas, and they will freely bite man and can live on his blood alone for weeks.

Letter to the Editor.THE FERGUSON-EDEBOHLS OPERATION, OR
RENAL DECAPSULATION.

CHICAGO, October 26, 1903.

To the Editor,

Sir: Sufficient reports of renal decapsulation based on reliable clinical data have accumulated to indicate that the operation has been established. Two well known and distinguished surgeons residing widely apart had apparently for years been working simultaneously and independently along a similar line, and considerable dispute has arisen as to the priority of introducing the operation of renal decapsulation to the profession. I have no other interest in the subject than that of justice. After looking up the records I am convinced that to Dr. Alexander Hugh Ferguson is due the credit of priority of introducing the operation of renal decapsulation for nephritis. I was present at a meeting of the Chicago Gynecological Society on December 16, 1898 (see records), when Dr. Ferguson advocated distinctly and practised "the peeling off of a thick pathological capsule as a thing desirable" in nephritis. Dr. Ferguson published a paper on the surgical treatment of nephritis on March 11, 1899. Dr. G. M. Edebohls's first paper appeared, on renal decapsulation for nephritis, April 22, 1899. So far as I am aware from reading the medical journals, Dr. Edebohls has done more to place the operation extensively before the profession, but that does not alter the fact that Dr. Ferguson's publications were made prior to those of Dr. Edebohls. It is not strange in these days of widespread medical knowledge that two surgeons should accomplish the solution of the same problem independently, and hence I suggest due credit be accorded to each from known published data. I would propose a compromise and call renal decapsulation the Ferguson-Edebohls operation.

BYRON ROBINSON.

Proceedings of Societies.

NEW YORK STATE MEDICAL ASSOCIATION.

TWENTIETH ANNUAL MEETING, HELD AT NEW YORK,
OCTOBER 19TH, 20TH, 21ST, AND 22ND.*(Concluded from page 872.)**Thursday Afternoon:*

The session opened with Dr. G. F. COTT, of Buffalo, who read a paper on

Peculiar Symptoms Following Radical Operations. No discussion followed. Dr. Cott exhibited a patient upon whose ear he had operated.

Acute and Chronic Cholecystitis, was the title of a paper read by Dr. J. H. MÜSSER, of Philadelphia. He said that he would limit himself to the acute form, of which he had studied 116 cases, forty-eight of which followed typhoid fever, sixteen showed bacilli, and twenty-eight none. Infection often followed gallstones, although perhaps not caused thereby. The primary form was the one most likely to cause gallstone disease. It was a more common disease than was usually thought,

having often been wrongly diagnosticated. Gallstones were probably always caused by cholecystitis; many old people really died of it. So called cases of relapsing typhoid were often really cholecystitis, as might be seen from the typical septic temperature chart. The clinical course, in mild, severe, and gangrenous forms, varied from unnoticeable cases, frequently called indigestion, colic, etc., to the fulminating cases. Catarrhal jaundice was a term we must now do away with. Cholecystitis often occurred about the fifteenth day of typhoid, during period of convalescence, or after patient had entirely recovered. Symptoms were well known—pain and tenderness, varying during the day, radiating to the back, epigastrium, and particularly to right shoulder. The gangrenous form, painful at first, was not so forty-eight hours later, but shock, chill, or other alarming symptom appeared, rigidity might disappear also. There was tumor in eighty per cent. of cases, in the classical region, but it had been mistaken for ovarian disease, and it might be pushed down by an enlarged liver. Spasm was not constant. Fever occurred, of a degree and a half perhaps, even in mild cases; in seven forms, the temperature would be that of sepsis. Vomiting was not so common as might be thought. Loss of appetite was constant. Leucocytosis occurred in sixty per cent. of cases; when intense infection supervened, then would be a leucopenia. Appendicular inflammation and perforating gastric ulcer must be diagnosticated differentially, as well as pancreatitis, with or without hæmorrhage. Sometimes, however, a severe neurosis would simulate cholecystitis, particularly if the patient suspected the existence of the latter; fever would be probably absent in such a case. Forty per cent. died without operation, only five per cent. after operation. We were only beginning to study the disease and facts were urgently wanted. The best treatment was to remove the gall bladder and to operate early.

Prolonged applause greeted this paper from the largest audience of the meeting, who had assembled to greet their distinguished colleague. Dr. ROBERT T. MORRIS, of New York, opened the discussion by stating that this paper should rank with Fitz's celebrated paper on appendicitis, read in 1886. The danger of pancreatitis complicating cholecystitis was the principal reason for early operation.

Dr. Egbert Le Fevre and Dr. Francis H. Markoe sent letters of regret that they were unable to be present at this discussion.

Dr. ALEXANDER LAMBERT spoke of the value of the symptom of radiating pain in diagnosticating cholecystitis. He knew of a case in which for twelve years at intervals gallstone symptoms followed typhoid, and a second attack of the latter occurred at the end of sixteen years, evidently by autoreinfection.

A SYMPOSIUM ON SALPINGITIS.

was opened by Dr. HENRY C. COE with a paper on

The Surgical Treatment of Salpingitis, in the course of which he remarked that immediate resort to salpingotomy was no longer in the line of advanced surgery; pus in contact with the peritonæum was no longer thought to be necessarily fatal. Tubal inflammation resembled somewhat appendicitis, and

immediate vaginal incision was usually practised, although some preferred to wait till after the acute stage. Pelvic abscess was now incised early, however, and fluctuation or ripening were not waited for. In subacute cases, adhesions were slight and one should try to free the tubes. It was unwise to enter the peritoneal cavity in order to separate high adhesions. Hydrogen peroxide should never be used. Septic symptoms ought to be recognized early and when the pelvis was full of a dense exudate, leucocytosis should be looked for. Unsuspected complications made operation risky and the operator should always be ready to open the abdomen, taking care to avoid injury to the bowel. The vaginal incision was useless if the abscess was at the pelvic brim, although skillful surgery might save the day. The tyro contented himself with emptying the abscess, although the expert examined carefully afterwards for adhesions, etc. No two cases were quite alike. The abdominal operation was better to prevent prolapse of the tube. Salpingostomy was a simple operation, and when the tube was full of pus, it might be best to sacrifice it; the tube could not be disinfected and some operators took off two thirds of its substance. The stump might give trouble. The ovary, according to modern surgery, was not necessarily sacrificed because the tube was in bad condition, nor was the uterus removed because of diseased annexa.

The Ætiology and Pathology of Salpingitis was the title of a paper read by Dr. EDWARD J. ILL, of Newark, N. J., who said that all forms were due probably to the invasion of pathogenic germs, although cold douches and other exposures to cold, especially during menstruation, might act unfavorably, as well as the invasion of the tube by carbolic acid or hydrogen peroxide. The colon bacillus and the tubercle bacillus were among the most troublesome bacilli, but gonorrhœa was the most common cause; it grew on the surface of the tube, and also penetrated and might set up a peritonitis. The streptococci and staphylococci were the most active among the germs, and intestinal disease, typhoid ulcer, appendicitis, tuberculosis acted through the blood and through operative interference. The pathological signs were those of inflammation, together with desquamation of the epithelium. Pus might be squeezed out of end of tube, or the end might close up and the fimbriated end might choke up and its fibres adhere. The uterine end closed, too, but rarely. The lining of the tube was often fairly well preserved. That complete restoration was possible was proved by subsequent pregnancies. The finale might be a hypertrophic condition or an atrophy to a mere corkscrew-like appearance, or hyaline degeneration. It was possible that some cases were not bacterial in origin.

The Non-operative Treatment of Salpingitis.—Dr. W. TRAVERS GIBB, of New York, read this paper. He deprecated the former craze for operative interference for every pain in the side; it was not always necessary to remove the tubes, as a cure might sometimes be brought about without an operation. Surgeons, he thought, would not operate upon a relative without exhausting other therapeutic measures; women operated upon were always nervous and had obscure symptoms of various kinds. Often a mere congestion of the tubes was the condi-

tion, and he had seen even cases of gonorrhœal salpingitis recover. The objects of non-operative treatment were to relieve pain, reduce congestion, and make pregnancy possible. Quiet and rest were necessary; the coal-tar products should be avoided, as they depressed; slight elevations of temperature might be disregarded. A chill meant the onset of a severer form of disease; an icebag to the head, turpentine stupes to the abdomen, were his measures; no douching, except for cleanliness, no curetting, and avoidance of excessive manipulation. The tubes might recover patency. In severe cases, the uterus might be packed with gauze, or the intra-uterine douche might be employed; operation as a last resort. A cheesy mass sometimes formed in which the bacilli lay quiescent ready to resume the attack. Palliative measures often gave surprising results even in chronic cases. After treatment required gentle exercise, with quiet during menstrual period, hot douches for pain, never alcohol or morphine, on account of the proneness to contract a habit; hot normal salt solution applied for some time was beneficial. Packing with lamb's wool tampons kept the organs in proper position, relieved congestion, and favored absorption; they should be left for twenty-four to forty-eight hours.

During the discussion which followed, the respective virtues of *veratrum viride* and *viburnum prunifolium* were warmly discussed.

Dr. THOMAS M. ROTCH, of Boston, Mass., then read his paper on the

Clinical Aspects of Ileocolitis in Children, which had been postponed from the Tuesday afternoon programme. He was followed by Dr. ALBERT H. ELY, of Southampton, on

Colon Bacillus Infection of the Female Genitourinary Tract, also a postponed paper. Discussion of both these papers followed by Dr. L. EMMET HOLT, Dr. W. P. NORTHROP, Dr. J. E. WINTERS, and Dr. F. W. SHIPMAN.

The installation of officers then took place; their names are given on page 798 of our last issue.

A vote of thanks was then passed to the retiring President, Dr. Frederick Holme Wiggin, for his indefatigable efforts to make the present meeting a success.

A motion to adjourn, which was quickly passed, brought the twentieth annual meeting to a close. It is considered to have been the most successful in the history of the association. Two hundred and eighty-seven members had registered before the books closed.

The New Hospital at Herkimer, N. Y., which was opened on November 1st, has made the following arrangements regarding the attendance of the medical staff: November and December, Dr. O. H. Deck and Dr. A. Walter Suiter; January and February, Dr. F. J. Harter and Dr. I. O. Nellis; March and April, Dr. M. G. Burgess and Dr. H. M. Roberts; May and June, Dr. Cyrus Kay and Dr. E. G. Kern; July and August, Dr. J. E. Canfield and Dr. J. H. Shaper; September and October, Dr. Geo. Graves and Dr. D. M. Devendorf. Dr. Camilla Quackenbush-Cristman has been appointed consulting gynecologist. The physicians appointed will attend to all patients who have no regular physician.

Book Notices.

Studies in the Psychology of Sex. By HAVELOCK ELLIS, L. S. A. (England); Fellow of the Medical Society of New York and Anthropological Society of Berlin, etc. Sold only to physicians, lawyers, clergymen, advanced teachers and scientists. Philadelphia: F. A. Davis Company. Pp. v-266. (Price, \$2.00.)

This is the third volume of the series of Havelock Ellis's well known *Studies in the Psychology of Sex*, of which we reviewed the two preceding volumes, viz., *The Evolution of Modesty*, and *Sexual Inversion*, in our columns for March 9, 1901, and October 11, 1902, respectively.

The story of the absurd persecution to which the author was subjected in England, where his former work was condemned as obscene literature, and the publisher punished, is now ancient history. It has, however, resulted in the discontinuance of the publication of the series in England and its publication only by the present publishers and in this country. Nothing, perhaps, serves so clearly to bring out the utter inconsistency of the action taken in England as the fact that Heape's "Sexual Season" of Mammals, which covers in relation to the lower mammalia much the same ground as is covered in part of the present work, appeared without any police interference in England in the *Quarterly Journal of Microscopical Science*, in 1900.

The present work is divided into three sections, dealing respectively with the analysis of the sexual impulse, the relation between love and pain, and the sexual impulse in women. The sexual impulse is one of the factors in the sexual instinct. These factors, as Professor Lloyd Morgan has pointed out, may be grouped into four component classes: (1) The internal messages giving rise to the impulse; (2) the external stimuli which cooperate with the impulse to affect the nervous centres; (3) the active response due to the outgoing coordinate discharges; and (4) the message from the organs concerned in the behavior by which the central nervous system is further affected. The first of these divisions is what Ellis deals with under the term "sexual impulse."

He considers the various theories prevalent as to its nature. The perhaps most widely prevalent one, that it is an impulse of evacuation, he considers at considerable length and with great cogency, and concludes: "We must undoubtedly reject this view of the sexual impulse. It has a certain element of truth and it permits an instructive and healthful analogy, but that is all. The sexual act presents many characters which are absent in an ordinary act of evacuation, and, on the other hand, it lacks the special characteristic of the evacuation proper, the elimination of waste material; the seminal fluid is not a waste material, and its retention is, to some extent, perhaps, rather an advantage than a disadvantage to the organism."

The definition of the sexual instinct as a reproductive impulse is dealt with as follows: "If we define an instinct as an action adapted to an end which is not present to consciousness, then it is quite true that the sexual instinct is an instinct of reproduction. But we do not adequately define the

sexual instinct by merely stating its ultimate object. We might as well say that the impulse by which young animals seize food is 'an instinct of nutrition.'"

He next deals with Moll's theory, that the sexual instinct is made up of "two separate components, each of which may be looked upon as an uncontrollable impulse. One of these is that by which the tension of the sexual organs is spasmodically relieved; this he calls the *impulse of detumescence*, and he regards it as a primary, resembling the impulse to empty a full bladder. The other impulse is the 'instinct to approach, touch, and kiss another person, usually of the opposite sex,' this he terms the impulse of *contractation*, and he includes under this head not only the tendency to general physical contact, but also the psychic inclination to become generally interested in a person of the opposite sex." Moll's insistence on the lack of necessary relation between these two, however, Ellis considers unsatisfactory, and as a result of a thorough study of the phenomena of love-making, not only among men, but among animals, in whom the impulse of contractation plays a very large part and involves the expenditure of an enormous amount of energy, he leads us to the conclusion that instead of being the result of two unrelated or only distantly related constituents, the impulse is made up of two parts so closely related as to be distinct stages in the same process. These he terms the stage of *tumescence*, (corresponding to Moll's contractation) and the stage of *detumescence*, respectively. Care must, however, be taken to remember that these terms refer not only to vascular conditions, but still more to the underlying nervous charging and discharging, which is equally fundamental, and in man more prominent than the vascular phenomena.

In the consideration of love and pain, the author finds the key to their relationship in the essential phenomena in the animal world generally, in which, among all animals, in their primitive state at least, the element of combat enters. It is not the actual pain itself, but the "state of intense emotion, of tumescence, which exerts the irresistible fascination in the lover, in his partner, or in both." As the author epigrammatically phrases it, "the question of love and pain is mainly a question of emotional dynamics." His investigations bring him into a comparative examination of Sadism and Masochism, with the result that he finds no real line of demarcation between them, and that the phenomena are to some extent normal, the "love bite," so universal in almost all times, regions, and peoples, forming as it were a bridge between the normal and pathological phenomena.

The third section, on the Sexual Impulse in Women, leads the author to the opinion that the very common view that women are on the whole naturally frigid and liable to sexual anæsthesia is erroneous. That there is a relatively large amount of sexual anæsthesia among women, especially in England and America, the author does not doubt, but sexual anæsthesia is a very complex phenomenon, the product of many and varied factors, and not a natural state. As regards frigidity, which is not the same thing, the author shows that "it is only within quite recent times and only in two or

three countries, that they¹ have led to any marked difference of opinion regarding the sexual aptitude of women. In ancient times men blamed women for concupiscence or praised them for chastity, but it seems to have been reserved for the nineteenth century to state that women are apt to be congenitally incapable of experiencing complete sexual satisfaction, and peculiarly liable to sexual anæsthesia. This idea does not appear to have been known to the eighteenth century."

The work closes with appendices on The Sexual Instinct in Savages, and on The Development of the Sexual Instinct.

Altogether, we must consider that Mr. Ellis's latest study in the psychology of sex fully sustains the reputation he has earned for himself as a painstaking investigator and a fearless and single-minded scientist.

Post Mortem Pathology. A Manual of Post Mortem Examinations and the Interpretations to be Drawn Therefrom. A Practical Treatise for Students and Practitioners. By HENRY W. CATTELL, A. M., M. D., Pathologist to the Philadelphia Hospital and the West Philadelphia Hospital for Women, Etc. With 162 Illustrations. Philadelphia and London: J. B. Lippincott Company, 1903. Pp. v-372. (Price, \$3.00.)

While this book is intended primarily for the student and for the practitioner who may be called upon to perform a post mortem examination, it will also prove serviceable to the trained and experienced pathologist; for much information of a purely practical kind is interwoven with the customary matter contained in such books, and the author's wide experience in autopsy work is manifest in every chapter. In the preparation of a book of this kind it is very natural to leave the beaten path, and the author's tendency in this direction is shown here and there, as, for instance, by the introduction of the ætiology of many of the conditions described. The usefulness of the book is certainly not diminished thereby and much valuable information for the student is gained. While much of the subject matter is presented in condensed form, the style is fluent and the personal flavor most agreeable to the reader.

All sorts of hints and practical details are presented, and even the expert cannot fail to gather many useful points of information. Besides describing the customary manner in which an autopsy should be performed, and the significance of the lesions discovered, the book also contains chapters on the furniture and accessories of a morgue, the care of the hands and the treatment of post mortem wounds, the preservation of tissues for macroscopical and microscopical purposes, and the restoration of the body after examination. The chapter on weights and measures is very extensive and complete, while that on bacteriological investigations is brief and disappointing. The chapter on medicolegal suggestions cannot fail to interest the expert witness. The Prussian regulations for the performance of autopsies in medicolegal cases are given in full,

¹ The diverging views concerning women, prevalent in all ages, "as a supernatural element in life, more or less superior to men," and, on the other hand, "as especially embodying the sexual instinct and as peculiarly prone to exhibit its manifestations."

and one chapter is devoted to comparative post mortems, the horse, dog, cat, and bird receiving special consideration. The final chapter of the book gives the modified Bertillon classification of the usual causes of death.

The illustrations are plentiful and most satisfactory. Only a few have been borrowed from other sources, and those that are original are all excellent. We have indicated briefly the scope of the work; the satisfaction in perusing its pages will be manifest to every reader.

Transactions of the College of Physicians of Philadelphia. Third Series. Volume XXIV.

This volume, belonging to the third series, contains the papers read before the college from January to December, 1902. Among many of importance, the following deserve special mention. Memoir of Alfred Stille, M. D., by Dr. William Osler; Memoir of J. M. Da Costa, M. D., by Dr. J. C. Wilson; Two Cases of Adiposis Dolorosa, by Dr. F. X. Dercum; Snake Venom in Relation to Hæmolysis, Bacteriolysis, and Toxicity, by Dr. Simon Flexner; Bruce Jones Albuminuria, with a Report of Three Cases; a Review of the Literature, by Dr. J. M. Anders and Dr. L. Napoleon, Boston; and A Study of the Excretion of Urobilin and of Some of the Enterogenous Decomposition Products in Pregnancy and the Puerperium, by Dr. D. L. Edsall, Dr. Ira B. Wile, and Dr. Charles A. Fife.

A Text Book of Chemistry. For Students of Medicine, Pharmacy, and Dentistry. By EDWARD CURTIS HILL, M. S., M. D., Medical Analyst and Microscopist; Professor of Chemistry and Metallurgy in the Colorado College of Dental Surgery; Professor of Chemistry and Toxicology in the Denver and Gross College of Medicine, University of Denver. With 78 Illustrations, including nine full page half tone and colored plates. Philadelphia: F. A. Davis Company, 1903. Pp. v-523. (Price, \$3.00.)

This volume is based upon the lectures delivered by the author for the past ten years in medical and dental schools. He has attempted to cover an enormous field, and, of necessity, has been forced to condense many of the articles. The first part of the book is devoted to medical physics, and this is followed by chapters on chemical philosophy, inorganic chemistry, the carbon compounds, toxicology, physiological, and pathological chemistry, etc. The articles on inorganic chemistry and that on the carbon compounds are especially to be recommended for their excellence. The author has included a very good appendix and glossary. For ready reference, we think the book will be of value to both student and practitioner.

Die Periodizität der Diphtherie und ihre Ursachen. Epidemiologische Untersuchung. Von Dr. ADOLF GOTTSTEIN, Arzt im Berlin. Mit 10 Curven im Text. Berlin: August Hirschwald, 1903. Pp. 40.

The results of a study of the diphtheria statistics of Prussia and Bavaria, prior to 1894, are given in

this very interesting little pamphlet. The author shows that the regular fluctuation in the frequency and virulence of diphtheria is not dependent upon any variation in the virulence of the bacillus, but rather upon the fact that, by eliminating the susceptible individuals, it exhausts the soil upon which the epidemic flourishes. A few susceptible individuals, however, accidentally escape, and these multiply in the succeeding generation until they become so numerous that the disease again finds an abundance of suitable soil. For an epidemic to reach its maximum, the susceptible individuals must have increased to from six to eight per cent. of the population. The curve of a diphtheria epidemic, therefore, covers more than one generation. In this it differs radically from the curves of measles and of scarlet fever, which represent very short and frequent waves.

BOOKS, ETC., RECEIVED.

The Medical Epitome Series. Physics and Inorganic Chemistry. A Manual for Students and Practitioners, by ALEXIUS MCGLANNAN, M. D., Associate Professor of Physiological Chemistry, Instructor in Clinical Laboratory, College of Physicians and Surgeons, Baltimore, Md. Series Edited by V. C. PEDERSEN, A. M., M. D., Instructor in Surgery and Anæsthetist and Instructor in Anæsthesia at the New York Polyclinic Medical School and Hospital; Deputy Genitourinary Surgeon to Out-Patient Department of the New York Hospital; Physician-in-Charge, St. Chrysostom's Dispensary; Anæsthetist to the Roosevelt Hospital (First Surgical Division). Illustrated with Twenty Engravings. Lea Brothers & Co., Philadelphia and New York. Pp. 216.

Functional Diagnosis of Kidney Disease With Especial Reference to Renal Surgery, Clinical Experimental Investigations, by Dr. LEOPOLD CASPER (Privatdocent an der Universität), and Dr. PAUL FRIEDERICH RICHTER (Assistant der III. Med. Klinik in Berlin). Translated by Dr. ROBERT C. BRYAN, Adjunct Professor Genitourinary Diseases, University Med. College, Richmond, Va., and Dr. HENRY L. SANFORD, Resident Lakeside Hospital, Cleveland. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1903. Pp. x-233. (Price \$1.50 net).

Nose and Throat Work for the General Practitioner, by GEORGE L. RICHARDS, M. D., Fellow American Laryngological, Rhinological, and Otolological Society; Fellow American Otolological Society; Associate Editor Annals of Otolaryngology, and Rhinology; Otolologist and Laryngologist, Fall River Union Hospital, Fall River, Mass. New York: International Journal of Surgery Company. 1903. Pp. 330. (Price \$2.00 net).

A Manual of Plague, by WILLIAM ERNEST JENNINGS, M. B., C. M., Major in the Indian Medical Service; Chief Medical Officer for Plague Operations in the Presidency; Honorary Association in the Order of the Hospital of St. John of Jerusalem; Fellow of the Royal Institute of Public Health; etc. With an Introduction by Surgeon-General G. BAINBRIDGE, M. D., M. R. C. P., I. M. S. London: Rebman, Limited, 129 Shaftesbury Avenue, Cambridge Circus, W. C. 1903. Pp. xvi-254.

Introduction to the Study of Malarial Diseases, by Dr. REINHOLD RUGE, of the Imperial German Navy. Translated by P. EDGAR, M. B., C. M., Edin.; M. EDEN PAUL, M. D., Brux., M. R. C. S., L. R. C. P. London: Rebman, Limited, 129 Shaftesbury Avenue, Cambridge Circus, W. C. 1903. Pp. 138.

A Manual of Electro-Static Modes of Application, Therapeutics, Radiography, and Radiotherapy. Second edition, by WILLIAM BENHAM SNOW, M. D., Professor of Electro-Therapeutics and Radiotherapy in the New York School of Physical Therapeutics, Editor of the Journal of Advanced Therapeutics, and late Instructor in Electro-Therapeutics in the New York Post-Graduate School, etc. New York: A. L. Chatterton & Co. Pp. xix-302.

Medico-Psychological Association of Great Britain and Ireland. A Revision of the Statistics Presented by the Committee on Tuberculosis, by T. A. CHAPMAN, M. D. Printed

by Adlard and Son, Bartholomew Close, E. C.; 20 Hanover Square, W.; and Dorking. 1903. Pp. 31.

Advance Sheets of Portion of Illinois State Board of Health Report on Medical Education and Official Register of Legally Qualified Physicians. 1903. Embracing Medical Practice in Illinois, Medical Colleges in Illinois, and Faculties, Medical Societies in Illinois, and Officers, Pension Examining Boards in Illinois, Requirements for Practice in the United States, Medical Colleges in the United States, Official Register of Physicians. Springfield: Illinois Register. 1903. Pp. cv-304.

Transactions of the American Pædiatric Society, Fourteenth Session, Held at Boston, May 26, 27, and 28, 1902. With Addenda from the Thirteenth Session and an Index, Vols. I-XIV., Inclusive. Edited by WALTER LESTER CARR, M. D. Reprinted from The Archives of Pædiatrics. 1902. Pp. 310.

Transactions of the Medical Society of the State of New York. For the year 1903. Published by the Society. 1903. Pp. 514.

Surgery, Its Theory and Practice, by WILLIAM JOHNSON WALSHAM, F. R. C. S., Eng.; M. B. and C. M., Aberd.; Surgeon, Formerly Lecturer on Surgery and on Anatomy, St. Bartholomew's Hospital; Member of the Court of Examiners, Royal College of Surgeons of England Consulting Surgeon to the Metropolitan Hospital, to the Hospital for Hip Disease, Sevenoaks, and to the Cottage Hospital, Bromley. Late Surgeon in Charge of the Orthopædic Department, St. Bartholomew's Hospital; Examiner in Anatomy to the Conjoint Board of the Royal College of Physicians, Examiner in Surgery to the Society of Apothecaries. Eighth Edition. With 622 Illustrations, Including 20 Skiagram Plates, by WALTER GEORGE SPENCER, M. S., M. B. (Lond.), F. R. C. S., Eng., Surgeon to the Westminster Hospital. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1903. Pp. xiv-1227. (Price \$4.50 net).

Transactions of the Twenty-fifth Annual Meeting of the American Laryngological Association held at Washington, D. C., May 12, 13, and 14, 1903. New York: Published by the Association. 1903. Pp. vi-292.

Die Altersveränderungen und Ihre Behandlung Grundriss, Einer Lehre on der Altersinvolution in Ihren Beziehungen zur Physiologie, Pathologie und Therapie von Dr. FRIEDRICH FRIEDMANN in Wien. Urban & Schwarzwznberg. Berlin: N. W. Dorotheenstrasse 38-39. Wien: L. Maximilianstrasse 4. 1903. Pp. xii-247.

Handbuch der Therapie innerer Krankheiten in sieben Bänden. Bearbeitet von Professor Dr. v. ANGERER, München; Professor Dr. BABES, Bukarest; Professor Dr. BALZ, Tokio; Professor Dr. K. v. BAUER, München; Professor Dr. BAUMLER, Freiburg, i. B.; Professor Dr. BIEDERT, Eagenau; Professor Dr. BINSWANGER, Jena; Professor Dr. BINZ, Bonn; Professor Dr. H. BUCHNER, München; Professor Dr. BURKNER, Göttingen; Dozent Dr. DAHLGREN, Upsala; Professor Dr. EDINGER, Frankfurt, a. M.; Oberarzt Dr. EICHHOFF, Elberfeld; Professor Dr. EMMINGHUS, Freiburg, i. B.; San-Rat Dr. ERLENMEYER, Bendorf; Professor Dr. EVERSBUCH, München; Professor Dr. GANGHOFNER, Prag; Professor Dr. GAERTNER, Jena; Professor Dr. GARRE, Königsberg; Professor Dr. GEBHARD, Berlin; Professor Dr. GESSNER, Erlangen; Professor Dr. GRASER, Erlangen; Professor Dr. GUMPRECHT, Weimar; Dr. H. GUTZMANN, Berlin; Professor Dr. HAGENBACH-BURCKHARDT, Basel; Dozent Dr. HEINZ, Erlangen; Professor Dr. HEINSCHEN, Stockholm; Professor Dr. HEUBNER, Berlin; Dr. v. HOESSLIN, Neu-Wittelsbach bei München; Professor Dr. v. JURGENSEN, Tübingen; Professor Dr. KAPOSI, Wien; Dr. KARTULIS, Alexandrien; Dozent Dr. KAUFFMANN, Zurich; Professor Dr. KIESSELBACH, Erlangen; Professor Dr. KOPP, München; Professor Dr. MAX von KRYGER, Erlangen; Professor Dr. LEDDERHOSE, Strassburg, i. E.; Professor Dr. LENHARTZ, Hamburg-Eppendorf; Professor Dr. v. LEUBE, Würzburg; Dr. H. P. LIE, Bergen; Weil Professor Dr. v. LIEBERMEISTER, Tübingen; Professor Dr. LITTEN, Berlin; Professor Dr. MADELUNG, Strassburg; Professor Dr. MARAGLIANO, Genoa; Hofart Dr. MAYER, Furth; Professor Dr. MENDELSON, Berlin; Professor Dr. v. MERING, Halle; Med.-Rat Dr. G. MERKEL, Nürnberg; Dr. P. J. MOBIUS, Leipzig; Professor Dr. MOELL, Berlin; Professor Dr. PENZOLDT, Erlangen; Geh. Sanitätsrat Dr. E. PFEIFFER, Weisbaden; Geh. Hofrat Dr. L. PFEIFFER, Weimar; Professor Dr. F. J. PICK, Prag; Sanitätsrat Dr. RAMDOHR, Leipzig; Professor Dr. RIEDEL, Jena; Professor Dr. J. ROSENBACH,

Gottingen; Professor Dr. RUMPF, Bonn; Professor Dr. SCHECH, München; Professor Dr. SCHEDE, Bonn; Hofrat Dr. A. SCHMID, Reichenhall; Professor Dr. SCHONBORN, Würzburg; Geh. Reg.-u. Obermedizinalrat Dr. SCHUCHARDT, Gotha; Professor Dr. O. SIEFERT, Würzburg; Professor Dr. SONNEBURG, Berlin; Professor Dr. STINTZING, Jena; Professor Dr. v. STRÜMPFELL, Erlangen; Professor Dr. TUCZEK, Marburg; Professor Dr. O. VIERORDT, Heidelberg; Dozent Dr. PAULL WAGNER, Leipzig; Professor Dr. v. WINCKEL, München; Professor Dr. ZIEHEN, Utrecht; Professor Dr. v. ZIEMSEN, München. Herausgegeben von Dr. F. PENZOLDT, Professor in Erlangen, und Dr. R. STINTZING, Professor in Jena. Dritte Umgearbeitete Auflage, Erste Lieferung. Verlag von Gustav Fischer in Jena. 1903. Volumes I-II. Pp. 512.

Die Krankheiten Der Warmen Lander. Ein Handbuch für Aerzte von Dr. B. SCHEUBE, Fürstl. Physikus und Medizinal-Rat in Greiz, Früherem Professor an der Medizinschule in Kioto (Japan). Dritte Umgearbeitete Auflage. Mit 5 Geographischen Karten, 13 Tafeln und 64 Abbildungen im Text. Jena: Verlag von Gustav Fischer. 1903. Pp. 789.

Text-Book of Diseases of the Eye for Students and Practitioners of Medicine. By HOWARD F. HANSELL, A. M., M. D., Clinical Professor of Ophthalmology, Jefferson Medical College; Professor of Diseases of the Eye, Philadelphia Polyclinic; Ophthalmologist, Philadelphia Hospital; Consulting Ophthalmologist, Chester County Hospital, etc., and WILLIAM M. SWEET, M. D., Demonstrator of Ophthalmology, Jefferson Medical College; Assistant Ophthalmic Surgeon, Jefferson Medical College Hospital; Assistant Ophthalmologist, Philadelphia Hospital; Associate in Ophthalmology, Philadelphia Polyclinic; Consulting Ophthalmologist, Phoenixville Hospital, etc. With Chapters by CHRISTIAN R. HOLMES, M. D., CASEY A. WOOD, M. D., D. C. L., WENDELL REBER, M. D. With 256 Illustrations, including Colored Plates. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1903. Pp. xv-532. (Price, \$4.00 net).

A Text-Book of Operative Surgery. Covering the Surgical Anatomy and Operative Technics Involved in the Operations of General Surgery. Written for Students and Practitioners. By WARREN STONE BICKHAM, Phar. M., M. D., Assistant Instructor in Operative Surgery, College of Physicians and Surgeons, New York; Late Visiting Surgeon to Charity Hospital, New Orleans, etc. Pp. 984, with 559 Illustrations, Entirely Original. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, \$6.00 net; sheep or half morocco, \$7.00 net.

Nervous and Mental Diseases. By ARCHIBALD CHURCH, M. D., Professor of Nervous and Mental Diseases and Head of Neurological Department, Northwestern University Medical School; and FREDERICK PETERSON, M. D., President New York State Commissioner in Lunacy; Chief of Clinic, Department of Nervous Diseases, College of Physicians and Surgeons, New York. Fourth Edition, Thoroughly Revised and Enlarged. Pp. 922, with 338 Illustrations. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, \$5.00 net; sheep or half morocco, \$6.00 net.

A Text-Book of Obstetrics. By J. CLARENCE WEBSTER, M. D. (Edin.), F. R. C. P. E., F. R. S. E., Professor of Obstetrics and Gynecology, Rush Medical College, in Affiliation with the University of Chicago; Obstetrician and Gynecologist to the Presbyterian Hospital, Chicago; Obstetrician to the Chicago Lying-in Hospital and Dispensary, Chicago, etc., etc. Pp. 767, with 383 Illustrations, 23 in Colors. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, \$5.00 net; sheep or half morocco, \$6.00 net.

A Text-Book Upon the Pathogenic Bacteria.—For Students of Medicine and Physicians. By JOSEPH MCFARLAND, M. D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College, Philadelphia; Pathologist to the Philadelphia Hospital and to the Medico-Chirurgical Hospital, Philadelphia. Pp. 629, Illustrated Partly in Colors. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, \$3.50 net.

A Text-Book of Pathology. By ALFRED STENGEL, M. D., Professor of Clinical Medicine in the University of Pennsylvania. Pp. 933, with 394 Text-Illustrations, Many in Colors, and 7 Full-Page Colored Plates. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, \$5.00 net; sheep or half morocco, \$6.00 net.

Miscellany.

The Bible as to Physicians.—At a recent even-song, for the special benefit of physicians, at an uptown church, the lesson was from Ecclesiasticus, xxxviii, 1-16. As this book is reckoned among the apocrypha and unknown, save to members of the Roman and Episcopal churches, and, we fear, unfamiliar even to many of these, we venture to transcribe the verses read:

1. Honor a physician with the honor due unto him for the uses which ye may have of him: for the Lord hath created him.

2. For of the most High cometh healing, and he shall receive honor of the King.

3. The skill of the physician shall lift up his head: and in the sight of great men he shall be in admiration.

4. The Lord hath created medicines out of the earth; and he that is wise will not abhor them.

5. Was not the water made sweet with wood, that the virtue thereof might be known?

6. And he hath given men skill, that he might be honored in his marvelous works.

7. With such doth he heal (men), and taketh away their pains.

8. Of such doth the apothecary make a confection; and of his works there is no end; and from him is peace over all the earth.

9. My son, in thy sickness be not negligent: but pray unto the Lord, and he will make thee whole.

10. Leave off from sin, and order thine hands aright, and cleanse thy heart from all wickedness.

11. Give a sweet savor, and a memorial of fine flour; and make a fat offering, as not being.

12. Then give place to the physician, for the Lord hath created him: let him not go from thee, for thou hast need of him.

13. There is a time when in their hands there is good success.

14. For they shall also pray unto the Lord, that he would prosper that, which they give for ease and remedy to prolong life.

15. He that sinneth before his Maker, let him fall into the hand of the physician.

Tetra-Phosphorus Tri-Sulphide.—Thayer and Wolf (*Journal of Medical Research*, May, 1903) have made experimental investigations with this combination of sulphur and phosphorus, which is somewhat extensively used in the arts and has been charged with poisonous qualities only less intense than yellow phosphorus. These experimenters found that its action was wholly unlike that of phosphorus, and formulated the following conclusions: 1. Inhalation of air which has been passed through tetra-phosphorus tri-sulphide in substance has no appreciable effect upon rabbits at room temperature. 2. In the day P_4S_3 acts as a mild local irritant upon the alimentary canal. 3. This action is more pronounced in the small intestine than in the stomach. 4. In the circulation it acts destructively upon the protoplasm of parenchymatous cells. 5. The effect varies from a strong acidophile character in the protoplasm to its conversion into detritus. 6. The nuclei of the parenchymatous cells show a marked resistance, remaining and taking the stain even after the body of the cell has disappeared. 7. The effect is most marked in the epithelia of the renal cortex, of the liver, and of the pancreas, and in the muscular fibres of the heart. 8. The destruction is manifested after long treatment with small doses, or shorter periods of heavy dosage. 9. Perhaps the rapid recovery of the animals after stopping the administration is connected with the persistence

of the nuclei. 10. In general the agent increases catabolism by this action upon epithelia, while at the same time lessening anabolism by its local and alimentary effects. 11. It does not cause hæmolytic or jaundice or the appearance in the urine of albumin, sugar, tyrosine, or leucine. 12. Consequently tetra-phosphorus tri-sulphide may be considered non-toxic in any ordinary circumstances.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending October 30, 1903:

Smallpox—United States.

Place.	Cases.	Deaths.
Illinois—Belleville	Oct. 10-23.....	4
Illinois—Chicago	Oct. 18-24.....	1
Maine—Bangor	Oct. 10-19.....	50
Maine—Brewer	Oct. 10-19.....	10
Massachusetts—New Bedford.....	Oct. 18-24.....	1
Michigan—Detroit	Oct. 18-24.....	1
New Hampshire—Manchester.....	Oct. 18-24.....	6
New Jersey—Jersey City.....	Oct. 19-25.....	1
New York—New York.....	Oct. 18-24.....	2
Ohio—Cincinnati	Oct. 17-23.....	4
Ohio—Cleveland	Oct. 18-24.....	1
Ohio—Dayton	Oct. 18-24.....	1
Pennsylvania—Altoona	Oct. 18-24.....	4
1 case imported.		
Pennsylvania—Johnstown	Oct. 18-24.....	14
Pennsylvania—Philadelphia	Oct. 18-24.....	9
Utah—Salt Lake City.....	Oct. 18-24.....	1
Wisconsin—Milwaukee	Oct. 22-28.....	2

Smallpox—Foreign.

Austria-Hungary—Prague	Oct. 4-10.....	9	
Colombia—Barranquilla	Oct. 5-11.....		1
Great Britain—Birmingham.....	Oct. 4-10.....	6	
Great Britain—Bradford.....	Sept. 26-Oct. 10.....	5	
Great Britain—Glasgow.....	Oct. 10-16.....	5	
Great Britain—Leith.....	Oct. 4-10.....	1	
Great Britain—Liverpool.....	Oct. 4-10.....	3	
Great Britain—London.....	Oct. 4-10.....	3	
Great Britain—Manchester.....	Oct. 4-10.....	2	
Great Britain—Newcastle.....	Oct. 4-10.....	4	
India—Bombay	Sept. 16-29.....		3
Italy—Catania	Oct. 9-15.....	1	
Netherlands—Amsterdam	Oct. 11-17.....	3	1
Russia—Moscow	Sept. 20-Oct. 3.....	4	7
Russia—Odessa	Oct. 4-10.....	2	
Russia—St. Petersburg.....	Sept. 27-Oct. 3.....		1
Spain—Barcelona	Oct. 4-10.....		5
Venezuela—Bolívar	Oct. 4.....		Present.
Venezuela—San Felipe.....	Oct. 14.....		Epidemic.
Venezuela—Tucuyo	Oct. 3.....		Prevailing.

Yellow Fever—United States.

Texas—Laredo	Oct. 22-28.....	95	10
Texas—Minera	Oct. 21-23.....	3	1
Texas—San Antonio.....	Oct. 21-26.....	7	
1 at Ft. Sam Houston.			
Texas—Dewitt County.....	Oct. 26.....	3	1

Yellow Fever—Foreign.

Costa Rica—Limon.....	Oct. 1-15.....	1	
Cuba—Habana.....	Oct. 6.....	1	on Am.
s. s. <i>Monterey</i> from Progreso.			
Cuba—Habana.....	Oct. 9.....	2	on Ger.
s. s. <i>Prinz Adalbert</i> from Vera Cruz and Tampico.			
Mexico—Ciudad	Sept. 27-Oct. 3.....	16	5
Mexico—Linares	Sept. 27-Oct. 3.....	555	46
Mexico—Merida	Sept. 27-Oct. 3.....	13	4
Mexico—Nuevo Laredo.....	Oct. 22-27.....	12	4
Mexico—Tampico	Sept. 27-Oct. 3.....	5	4
Mexico—Vera Cruz.....	Oct. 10-17.....	58	18

Cholera—Foreign.

India—Madras.....	Sept. 19-25.....	2	3
Japan—Kobe	Sept. 26-Oct. 3.....		1
Turkey—Hama	Oct. 3.....		Prevailing.
Turkey—Homs.....	Oct. 3.....		Prevailing.
Turkey—Nabeck	Oct. 3.....		Prevailing.
Turkey—Tripoli	Sept. 15.....	15	to 20 cases daily.

Plague—Foreign.

Australia—Queensland, Bris- bane	Sept. 12.....	2	2
Argentina—Townsville	Sept. 4.....	1	1
Chile—Iquique	May 15-Aug. 17.....	170	101
Chile—Valparaiso	To Aug. 24.....	9	2
Japan—Yokohama	Sept. 13-26.....	2	1

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending October 31, 1903:

BERTOLETTE, D. N., Medical Inspector. Detached from duty at the Naval Dispensary, Washington, D. C., and to continue other duty.

DUNN, H. A., Assistant Surgeon. Ordered to the Naval Proving Ground, Indian Head, Md.

FISKE, C. N., Passed Assistant Surgeon. Commissioned passed assistant surgeon, with rank of lieutenant, from May 15, 1903.

LOWNDES, C. H. T., Surgeon. Detached from the Naval Hospital, Boston, Mass., and ordered to the Naval Academy, Annapolis, Md.

MORSE, E. T., Pharmacist. Detached from the Navy Yard, Boston, Mass., and ordered to the Navy Yard, Portsmouth, N. H.

OHNESORG, KARL, Assistant Surgeon. Detached from the Naval Academy, and ordered to the Naval Hospital, Boston, Mass.

PLEADWELL, F. L., Surgeon. Detached from the *Kearsarge* and ordered to duty at the Naval Dispensary, Washington, D. C.

SNYDER, J. J., Passed Assistant Surgeon. Ordered to the *Kearsarge* for duty.

Births, Marriages, and Deaths.

Married.

ASHMEAD—AULD.—In Philadelphia, Pennsylvania, on Wednesday, October 28th, Dr. Virden P. Ashmead and Miss Mary Ellen Auld.

CARRICO—THYSON.—In Washington, D. C., on Monday, October 26th, Dr. Albert Joseph Carrico and Mrs. Harriett Anne Thyson.

COBEY—CARR.—In Washington, D. C., on Wednesday, October 21st, Dr. Howard Prout Cobey and Miss Rebecca Louise Carr.

CRAWFORD—BARR.—In Philadelphia, Pennsylvania, on Tuesday, October 20th, Dr. Herbert Pollock Crawford and Miss Florence Barr.

GREEN—GRASON.—In Baltimore, Maryland, on Monday, October 19th, Dr. J. Royston Green and Miss Mary Chew Greason.

KLEIN—RENOLDI.—In Corona, N. Y., on Wednesday, October 21st, Dr. Anthony Klein and Miss Nora Renoldi.

LAMSON—CALVERT.—In New London, Connecticut, on Monday, October 26th, Dr. Theodore Lamson and Miss Julia Morgan Calvert.

PERSONS—LAPSLEY.—In Lexington, Kentucky, on Wednesday, October 21st, Dr. Elbert E. Persons and Miss Helen Louise Lapsley.

Died.

CLARK.—In Pueblo, Colorado, on Sunday, October 18th, Dr. H. A. Clark, in the fifty-seventh year of his age.

FINCH.—In Center Moriches, Long Island, N. Y., on Wednesday, October 28th, Dr. Joseph Finch, in the eighty-second year of his age.

McMAHON.—In Huntington, Indiana, on Friday, October 23rd, Dr. William R. McMahon.

MUNNIKHUYSEN.—In Belair, Maryland, on Tuesday, October 27th, Dr. Wakeman Briarly Munnikhuyesen.

NEVINS.—In Summit Hill, Pennsylvania, on Wednesday October 28th, Dr. John C. Nevins, in the sixty-fifth year of his age.

PAYNE.—In Steubenville, Ohio, on Thursday, October 22nd, Dr. Benjamin Franklin Payne, in the seventy-seventh year of his age.

ROBERTS.—In Richmond, Kentucky, on Thursday, October 22nd, Dr. Philip Roberts.

ROWLEY.—In Prairie du Chien, Wisconsin, on Wednesday, October 21st, Dr. J. C. Rowley, in the fortieth year of his age.

New York Medical Journal AND Philadelphia Medical Journal. CONSOLIDATED.

A Weekly Review of Medicine

VOL. LXXVIII, No. 20.

SATURDAY, NOVEMBER 14, 1903.

WHOLE No. 1302.

Original Communications.

URINARY HYPERACIDITY.

By THOMAS R. BROWN, M. D.,

BALTIMORE.

Two years ago we published a series of nine cases with symptoms suggestive of cystitis but no infection (painful, frequent, burning micturition and occasionally a few pus and blood cells in the urine), in which we ascribed the symptoms to a condition of urinary hyperacidity (*Philadelphia Medical Journal*, March 2, 1901).

From the examination of a large number of normal individuals we concluded that the average urinary acidity was 25, that is, 100 c. c. of urine were neutralized by 25 c. c. of a decinormal solution of sodium hydroxide, phenolphthalein being used as the indicator. On this basis the acidity of the 9 cases reported, tested several times in each case, was 68, 75, 50, 77, 75, 123, 43, 67, and 63; in other words, the acidity was from 2 to 5 times as great as it should be normally.

In this series we called attention to the fact that many of these cases had been previously diagnosed as cystitis, and we also insisted upon the necessity of carefully differentiating the two conditions, mentioning two cases in which an erroneous diagnosis of cystitis, the symptoms being undoubtedly due to urinary hyperacidity, led to a siege of local treatment, which in turn brought about a true cystitis. In a number of these cases in which a vesical examination was made, marked reddening of the trigonum was met with, which we thought was probably due to the irritation of the highly acid urine. We also gave it as our opinion that in the majority of cases this hyperacidity was of neuropathic origin, perhaps in the same way that gastric hyperchlorhydria is; thus, as regards treatment, besides the neutralization of the increased amount of acid, the neurasthenic basis needed careful treatment by rest, freedom from excitement, sunshine and fresh air, careful attention to the diet and to all the various bodily functions.

Within the past two years we have met with ten or more cases of a similar nature, that is, cases in which the chief complaint was frequent, painful, burning micturition where a careful urinary examination demonstrated that the bladder was not infected, but that the cause of the symptoms lay in a marked hyperacidity of the urine.

All these cases were in neurasthenics with one exception, this last being also the only man of the series. The history in each of the cases with this one exception, which will be spoken of later, was practically the same, although the symptoms differed as regards intensity; all the women were young and the majority unmarried. We will give in detail one of the cases:

The patient, Miss E. B., aged eighteen years, had complained of frequent, burning, painful micturition for two years. Her family history was good, while as regards her personal history she had been perfectly well up to the development of the present illness, except for the usual contagious diseases of childhood. She, however, had always been of a nervous disposition. The bowels had always been regular; she never used alcohol in any form; she drank a great deal of tea; she was careless about her diet, having always been fond of candy, rich salads, and other indigestible foods.

Just before the urinary symptoms appeared, owing to family reverses, she had been obliged to leave school and devote herself to sewing, and had worked hard at it ever since. The frequency of urination came on gradually; at first there was no pain, but recently pain and tenesmus have been present to a considerable extent; there was some pain in the back, and the patient was obliged to get up several times at night to void urine. The physical examination showed that the patient was distinctly neurasthenic, the hands were moist and clammy, dermatographia was marked; the heart, lungs, and abdomen were negative, the tongue was clean, the lips and mucous membranes were of good color. The patient had shortly before gone to a physician, who had told her that she was suffering from cystitis for which he had prescribed cystogen, which had markedly aggravated her symptoms. The examination of the urine showed that there was no albumin, no bile, and no sugar. Microscopical examination showed an occasional pus cell, calcium oxalate crystals, but no casts. The specific

gravity was normal, but the urine was extremely acid, and titration with decinormal sodium hydroxide solution showed that the acidity was 100, that is, 100 c. c. of the decinormal solution was necessary to neutralize 10 c. c. of urine. The patient was advised to follow a simple dietary—all acids, candies, sweets, and rich foods being barred; on waking, retiring, and between meals large quantities of pure water were to be taken; she was advised to take a cold sponge in the morning, to get at least one hour's exercise in the fresh air and sunshine daily and to be in bed by 10 o'clock every night. As medicines, she was given tincture of *nux vomica* in increasing doses, and potassium citrate, at first in 10 grain doses every four hours, although subsequently it was necessary to increase this to 30 grains every three hours. Under this treatment the symptoms became markedly less, the acidity of the urine diminished markedly, and when the patient was last seen she was practically free from all symptoms, and the urine was of almost normal acidity.

This case illustrates very well the symptoms and signs usually met with in this condition; in some the symptoms are less than in the case quoted, while in other cases they are much more severe, and respond much less rapidly to treatment. It is rather interesting to note that the cases which are most difficult to cure are those in which there is considerable irritation of the trigonum, due to the presence of marked symptoms over a long period of time, and in this class of cases after the urinary hyperacidity has been corrected symptoms referable to the inflamed trigonum are present. Besides keeping the urine bland and non-irritating and general hygienic treatment, local treatment under the strictest aseptic precautions may be necessary in some cases.

Another case that is perhaps worth mentioning is that of the sole man in our series. In this case the patient, a man of about forty years of age, with no neurasthenic symptoms, with a good past history, the patient neither smoking nor drinking, but with a gouty family history, complained of intense itching about the anus and scrotum, and of burning sensations in the urethra during urination. The patient was careless about his diet and was fond of rich food. Physical examination showed that the patient was normal in every respect, except a markedly reddened and irritated condition of the skin about the anus and the scrotum. Examination of the urine made at three separate times within three days showed an acidity of 75, 70, and 80. The patient was given an ointment for local application, was put on a very careful diet, all acid foods, sweets, rich foods, fried, and greasy foods being eliminated, while he was told to drink at least six glasses daily of some form of alkaline water—Saratoga vichy being used in his case, and at the same time to take one drachm of sodium bicarbonate daily.

After a week of this treatment the symptoms were markedly improved and the acidity of the urine had been reduced to 46; after three weeks of

the treatment the acidity was reduced to 30 and the symptoms had entirely disappeared. The patient has followed a careful dietary since that time, and has partaken of large quantities of pure water, but none of the symptoms have reappeared, although he has not taken the alkalis now for a period of six months.

We feel justified in again calling attention to this condition and to the necessity of its proper recognition and treatment for many reasons. In the first place the condition is by no means rare, as shown by the fact that we have met with upwards of 20 cases within the past three years. In the second place the condition is frequently misinterpreted, and in the majority of cases erroneously treated, as shown by the fact that more than half of our cases had been diagnosticated as cystitis by one or more physicians, a diagnosis which may lead to the most deplorable results in cases where irrigations and topical applications are advised unless the technique is absolutely perfect, and under any circumstances such treatment is absolutely wrong and unnecessary in this condition, and never does good. In the third place if the condition has been present for a long period of time congestion and irritation of the trigonum are likely to occur, which renders the treatment more difficult and the hope of a rapid cure less good.

For these reasons it seems most important that urinary hyperacidity should be recognized as a cause of symptoms simulating cystitis, and if the acidity of the urine were tested in such cases we feel sure that the early diagnosis could be made and the proper treatment, both medicinal, dietetic, and hygienic, could be inaugurated so that a rapid cure could be brought about, and the patient be spared much unnecessary discomfort and pain besides being removed from the possibility of developing a true cystitis by an erroneous diagnosis and improper treatment.

The Memorial Hospital for Women and Children, whose building at the corner of St. Marks and Classon Avenues, Brooklyn, was recently sold to the Jewish Hospital Association, has secured a home at 827 Sterling Place, which will be altered to fit it for hospital uses. The hospital is really a woman's institution, and its staff consists entirely of women physicians, among whom are Dr. Jennie V. H. Baker, Dr. Lottie A. Cort, Dr. R. Ayers, Dr. M. Minshull, Dr. G. A. Cassidy, Dr. Van Buren Peckham, Dr. J. Fleckles, Dr. Mary Lines, Dr. Sophie Klenck, Dr. M. L. Turtin, Dr. M. S. Sisson, Dr. Charlotte Wooley, Dr. Evelyn Low, and Dr. Vonder Luke. The present officers of the hospital are: Mrs. A. H. Tifft, President; Mrs. M. Boardman, recording secretary; Mrs. W. Needham, corresponding secretary; Miss M. Merriells, treasurer, and Mrs. Vosburgh, vice-president.

A PLEA FOR THE MORE FREQUENT USE OF ANTITOXINE.

By C. F. WELDEN, M. D.,

CONEMAUGH, PA.

As preventive medicine has not attained the prominence it deserves, the medical profession is called upon to continue the use of the curative measures, and at the same time, should try to bring them to a more perfect state.

In antitoxine for diphtheria, we have as an example a remedy which represents the nearest approach to a specific at the present time. On this I wish to make some brief remarks, which I trust may interest some one who will be able to make more extensive experiments, in order to determine its true value.

My purpose is not to show any better curative properties, but to give my idea of the proper method of administration. When I first began the use of this most valuable remedy for the relief of this dreaded disease I considered a dose of two thousand units, administered every twelve hours; an admirable method of application. By later experience I found that given in larger doses four thousand units gave me even better results. It was not long, however, before I decreased the time to six hours, under which method I had most happy results, but not what I deemed the true therapeutic properties of the remedy.

Of late I have reduced the dose to two thousand units, but likewise made the intervals between the injections shorter; that is, I use it every three hours until I have a decrease in the severity of the symptoms.

Under the methods I employed at first I found I was compelled to use enormous quantities, as high as fifteen thousand units in cases of moderate severity, before I obtained the desired results. I think I now possess a method which will serve to lessen the quantity, the length of the disease, and the time the alarming symptoms remain, as well as to have a mortality rate not exceeding two per cent.

To illustrate, I will outline one of my worst cases treated by this method.

CASE.—M. McG., white, female, aged five years, family and personal history good, except that her father uses considerable alcoholic liquor.

She had been suffering with a whooping cough or six weeks, and measles for eight days when she developed a severe attack of laryngeal diphtheria, which I did not diagnosticate for the first twelve hours. When I did, the temperature in the axilla was 106° F., pulse 170, respirations 48, labored; glandular swelling to a marked degree now developed.

In the morning I administered the first dose,

repeating it every three hours for three doses, and was prepared to give the fourth. However, before the third dose the face was cyanotic, breathing more labored, pulse weak, and the child was in a state of collapse. At six o'clock, the time for the fourth dose, I found the child resting quietly, being able to remain in a recumbent position for breathing, temperature 101.2° F., pulse 130, respirations 36, no cyanosis.

I did not repeat the treatment for eighteen hours, and then only because I was a little afraid the Klebs-Löffler bacilli might again renew activity. My other treatment consisted of whiskey and digitalis, with cold sponges for the temperature.

In three days' time the child was bright and, to all appearance, free from the disease, except marked weakness.

Concerning this method of treatment, I make the deduction that, by repeating the injections every three hours we are able to keep the activity of the organisms under control, and more easily and permanently to saturate the system in a shorter time.

ACUTE INTESTINAL OBSTRUCTION AND NECROSIS OF THE BOWEL CAUSED BY A GALL STONE.

By F. L. STRAUSS, M. D.,

CHICAGO,

VISITING PHYSICIAN TO THE HOME FOR AGED JEWS. ATTENDING PHYSICIAN TO THE ASSOCIATED CHARITIES DISPENSARY.

Acute intestinal obstruction is a condition which we face at times and often are puzzled as to the cause. The ordinary causes of obstruction are easily determined: intussusception, volvulus, etc., being the chief factors. The obstructions due to bowel contents are harder to determine unless we can obtain a history of ingestion of a foreign body or of gall stone colic.

When the obstruction is due to abnormal contents of the bowel, we find the causative factors in the order of their frequency to be gall stones, fæces, foreign bodies, and enteroliths. The gall stones are single, large, and have a smooth surface; fæces follow the recurrent attacks of constipation, which are relieved only after the greatest amount of trouble; foreign bodies give the history of accidental swallowing, and most often consist of fruit stones or false teeth; enteroliths usually follow the long continued use of such drugs as bismuth, which coat some small foreign bodies. Scott (*Philadelphia Medical Journal*) mentions ten cases which have been reported during the past two years and in which the obstruction has been due to abnormal contents. Analysis of these cases shows that one half of them are due to gall stones.

The conditions which prevailed in my case were not revealed until after death. The patient at no time gave a history of abdominal colic previous to the present attack. During the attack no particular attention was directed to the gall bladder owing to the absence of colic and icterus.

CASE.—Mrs. S., aged seventy-four years, a woman of slight build. For a number of years she had suffered with asthma and emphysema; also had a mitral murmur, heard best at the cardiac apex. During the past three years I have treated her for her lung trouble and an occasional intercurrent attack of constipation. She had a complete prolapsus uteri which mechanical support held well in place. During the past summer she complained of a burning on urination. The urine was loaded with urates, but this condition was relieved by urinary antiseptics and alkalies. Since then she has been comfortable until the present attack.

The acute trouble started November 28th, when I was consulted regarding an attack of obstinate constipation. I prescribed ten grains of calomel, followed by a saline. The result was only fair. Two days later a slight diarrhoea began and lasted three days. December the 5th—one week after the trouble first started—I was again consulted, as the constipation had again returned. Again mercury and a saline were ordered, but without any effect this time. The next day I saw the patient, and during the night faecal vomiting had set in. It was now the third day since the bowels had moved. There was no pain, no distention of the abdomen; pulse 72; temp. 98.4° F. The patient could retain no food. I now resorted to rectal tubes; they would pass only a short distance into the bowel, when they would be turned and kinked and forced out. The nurse then placed just within the rectum enemata of soap and water, salts and glycerin, and turpentine; each was expelled immediately without any result. The nurse then repeated the enemata with the patient in the knee-chest position. They were also expelled without result. The uterus was in its normal upright position, so that the obstruction could not be due to the prolapse and the consequent pulling down of the rectum.

The patient passed a comfortable night, vomiting once only. The next day, the 4th, the patient received $\frac{1}{12}$ grain of atropine sulphate hypodermically. There was no appearance of an atropine intoxication, but from its injection two bowel movements resulted. The abdomen now felt slightly rigid, but was not distended. She had passed no flatus during these four days. Turpentine stupes to the abdomen relieved the rigidity. I then gave drachm doses of magnesium sulphate by mouth every hour, repeating it even though she vomited the same. The salts produced no effects, except a vomitus which was distinctly faecal, and at times contained small particles of partially digested food.

Consultation with the idea of surgical intervention decided that, with the heart and lung complication, operation would not be advisable.

For the next three days enemata and croton oil were tried at frequent intervals. Atropine sulphate, grain $\frac{1}{24}$, was repeated once or twice again. She now complained of a dryness in the throat, and of a

burning sensation in the stomach, which I attributed to the atropine. The patient died on the seventh day. During the acute attack there was no jaundice, no colic nor abdominal pain. The gall bladder at no time was palpable. The urine decreased in the amount secreted as the attack advanced; on the fourth day she passed none for twelve hours, and then the nurse only obtained four ounces by catheter. This gave a faint trace of albumin. The highest the pulse reached was 92, and at no time was there any temperature. The abdominal rigidity lasted but one day; there was no flatus passed from the onset. Neither solids nor liquids were retained. The asthmatic condition remained *in statu quo*.

The cause of the obstruction not being determined before death, I asked permission for a post mortem, but was refused. However, unknown to the family, I made a small incision into the abdomen and found the following condition: nowhere in the bowel were there present kink, volvulus, adhesive bands or evidence of a peritonitis. The bowels were filled with fluids and contained here and there solid particles. Low down in the descending colon could be felt a hard, irregular mass, which obstructed this portion of the bowel. Below the mass the colon was collapsed; above it was filled with fluids, but not distended. The mass was located just above the rectum. The jejunum for a distance of about eight inches was black, and beginning gangrene was found at this point. At the distal end of this dark bowel I could feel a smooth, solid mass, which appeared to fill the lumen of the jejunum, as I was unable to dislodge it in either direction. However, the bowel on either side of this obstruction contained fluid, so that undoubtedly gas and fluids were able to pass here. Examination of the liver showed an atrophy of the hob-nailed type, the gall bladder was moderately distended and contained both fluid and gall stones. The stones varied in size from that of a bean to that of a small walnut, and were several in number; one, the size of a pecan, was lodged in an obstructed the common duct. There were no facets present in this stone. There was also a stone about this size palpable in the head of the pancreas. These were all the changes I found in the abdomen through the small incision made. I did not open the bowel.

I was unable on account of the imperfect and hastily performed post mortem to determine the exact nature of either the mass in the colon or jejunum. I am satisfied that the lower mass was probably faeces and caused the complete obstruction of the lower bowel. I say this because the mass was so irregular in outline and filled the bowel so completely. The upper mass being smooth, regular and without any facet marks, I take to be a gall stone, especially as there were stones in the gall bladder and duct. The condition of the bowel at the pla-

of lodgment being gangrenous, probably due to the gall stone, leads me to place the upper mass as the greater factor in the intestinal obstruction. Therefore, I concluded that the case was one of acute intestinal obstruction, with the gall stone and subsequent necrosed bowels as the chief cause, and the lower faecal mass as the contributing cause.

THE FABLE OF THE EGG.*

By WILLIAM S. ELY, M. D.,

ROCHESTER, N. Y.

I offer a note on the free use of eggs as food, in selected cases of acute and chronic disease.

Some years ago, a neurasthenic patient in a private room, at the Rochester City Hospital, upbraided me, after six weeks of treatment by rest, massage, electricity and, what I then thought, liberal feeding, affirming that she was no stronger than when she first came under my care. Medicinal tonics only increased her nervous irritability and depression. I then began to increase her food up to the point of tolerance, administering the same at intervals of two hours, night and day. After a few days I discarded all medicine and succeeded in giving sixteen raw eggs and four quarts of milk every twenty-four hours. Improvement was soon apparent, with marked gain in weight, and complete convalescence followed in eight weeks.

For many years the tolerance of the human stomach for food in certain conditions of acute and chronic disease, had been noted by me. The case briefly outlined, again called attention to the subject, and repeated observations have proved that the stomach and digestive tract in many cases of illness can be systematically trained to receive and assimilate a surprisingly large amount of liquid food, far exceeding that which in health would be tolerated. While it is a matter of common practice to give milk and broth freely in many cases, not all physicians have prescribed raw eggs for their patients in the numbers which have been well borne and apparently conducive to recovery. My plea is, therefore, not for the egg—the value of which as food is universally admitted—but for its administration in selected cases in numbers which may to some appear fabulous. Philosophers are not agreed about the doctrine, "*omne vivum ex ovo*," and I may add that it is not yet determined to what extent life can be sustained by the egg. Those oft quoted experiments upon the stomach of Alexis St. Martin prove that the raw egg is one of the most readily digested articles of diet.

* Read at a meeting of the Medical Society of the State of New York.

It is almost always at hand, may be had clean and uncontaminated, and does not require the sterilization now demanded for milk. Can you think of any more concentrated food, or of any equivalent for the two ounces of nutriment of the average egg? Besides milk and beef juice, I have frequently prescribed a raw egg an hour—twenty-four whole eggs a day—in serious conditions of nervous exhaustion; and in the progress of pneumonia, diphtheria, and fevers marked by high temperature and rapid waste. This number is at times well borne, and has often lessened the necessity for alcoholic stimulants. Eggs may be taken in various ways, soft boiled, shaken with milk, but most easily, I think raw, from a tumbler in which they are freshly dropped from the shell. The patient is instructed to swallow the yolk, enveloped in its membrane, and floating in its albumen. Passing over the tongue, the yolk elongates, fits the pharynx and œsophagus in the act of swallowing, and the mouth is left clean and free from any taste. Some moral force on the part of the patient, nurse, and doctor, may be required to overcome a repugnance to the treatment referred to. As a rule, I have had no difficulty in making my patients amenable to my will in the matter. He is the most successful physician, generally speaking, who wills his patient to do what he deems necessary in the serious emergencies of sickness. This is the "mind cure," and the "faith cure," in which I emphatically believe.

With the numerous lengthy clinical records bearing on the administration of eggs in numbers which may be thought fabulous, I do not purpose to weary you. The briefest reference to a few cases at the present time must suffice.

CASE I.—Mrs. H. Neurasthenia, aggravated case of long standing. Took fifteen eggs and one gallon of milk daily, for six weeks. Recovery.

CASE II.—Mrs. M. Similar case. Took twenty-four eggs and a gallon of milk and chocolate daily for eight weeks. Recovery.

CASE III.—Mrs. B. Wife of an intelligent physician. Extreme neurasthenia; mental depression marked; insanity feared; treatment begun at Rochester City Hospital, 1892. Medicines discarded as worse than useless; eggs, milk, and chocolate, systematically administered by day and night nurse; improvement slow; patient after ten weeks taken home where the treatment was continued. Her husband wrote me in October of her complete recovery, and stated that from September 3, 1892, to September 3, 1893, she had taken 3,006 eggs. He felt certain that they had been an important factor in the recovery of a case with a dark outlook.

CASE IV.—Miss V. Advanced consumption, 1891. Hectic fever. Taken from bed, where she had been confined for months, and placed in a bed in a specially constructed carriage, the object be-

ing to keep her out of doors as many hours daily as possible. Eggs and milk were pushed to the point of tolerance. She gradually gained weight and strength, sat up and drove herself, and carried her food in the carriage. She took fifteen eggs daily for a year—5,475 in 365 days. Her treatment has now gone on for over three years; the eggs lessened in the past year. She coughs constantly, and has advanced tuberculous disease—might be said to be a saturated tuberculous patient, kept alive by an indomitable will power and by a heroism in living out of doors in all kinds of weather, and in taking food in amounts that have astonished me. As to eggs she has been an exemplary patient.

CASE V.—Miss F. Consumption. Fifteen to twenty-four eggs daily, marked improvement in weight and strength.

CASE VI.—Mr. C. Diphtheria. Seen with Dr. Barber. Took an egg an hour for several days. Recovery.

CASE VII.—Mrs. G.—Rochester City Hospital. Acute croupous pneumonia. Twenty-four eggs daily for four days. Recovery.

CASE VIII.—Mrs. C.—Seen with Dr. McCauley. Acute pneumonia. Fifteen to eighteen eggs a day for several days. Recovery.

CASE IX.—Miss B.—Severe case of typhoid fever, pulse 130, temperature 104 degrees for several days. Beginning with eggs and milk, the amounts of each were gradually increased until thirty-six eggs and five quarts of milk were taken in twenty-four hours, and this amount of food was taken daily for one week, then gradually reduced as fever subsided. Recovery.

Many cases similar to the above might be given, but those cited will furnish an idea of the varied disorders in which eggs are tolerated.

It is to be understood that in every instance they have been used for their supporting and restorative influence. In proportion as they have been well borne, stimulants have been found unnecessary. Milk, chocolate, and broth, and such medication as was indicated, have been prescribed in connection with eggs. Although some patients have died while taking eggs, I can think of no case in which death was due to their liberal use. It is certain that numerous patients have recovered from serious and alarming illness, or that their lives have been definitely prolonged by taking eggs. The best test of their nutritive value is not their chemical analysis in the laboratory, but their vital chemistry shown in their tissue building capacity, for out of them are rapidly constructed the cartilage, muscle, nervous and vascular systems, and all the varied structures which enter into the composition of a large class of feathered vertebrates, ranking in nature next to the mammalia.

If you give eggs to your patients, do not be chicken-hearted in their employment. Do not

fear the production of albuminuria from the ingestion of a large amount of egg albumen. In the case of typhoid fever referred to, acute nephritis coexisted, and the albumin and casts disappeared from the urine while thirty-six eggs a day were being taken.

In many other cases, tests of urine showed no albuminuria with the "egg an hour" practice. It will generally be found impossible to give eggs freely without the aid of a trained nurse.

So far as results are concerned, I would rather deal with a poor stomach managed by a good nurse, than with a good stomach under the direction of a weak, unmethodical nurse, who could not give a moral propulsion to her food and medicine. Often the treatment must be pursued with the regularity of a time table by night as well as by day.

Notwithstanding all possible efforts, nausea and vomiting and diarrhoea may often be produced, and the physician may be thwarted in his object. He will then try the white of eggs alone, variously combined, or will suspend them altogether. I have given the whites of forty-eight eggs daily for many days to a patient in the critical stages of typhoid fever.

Please remember that I am not advocating a fad, specific, or "cure all," for suggesting any original or untried method, or urging the indiscriminate administration of an article of diet to your patients. There may be only a small number of physicians present who have not appreciated the nutritive value of the egg liberally administered. I am addressing them, and I would urge that in some of their chronic cases of exhausted nerve centres, and in those acute critical cases which from time to time come under their care, and tax their resources for maintaining life until diseased processes can expend themselves, they should throw away their tonics, and possibly stimulants, and should gradually lead the stomachs of their patients up to the egg an hour practice.

Gentlemen, the early Christians saw in the egg the symbol of the Resurrection, and this symbol may be converted into a veritable Easter for some of your patients, by what at first thought some may deem the fabulous resurrection power of the egg.

Gift to Columbia.—Dr. George Lefferts, in retiring from the chair of laryngology next June, when he will have served over thirty years in professional work, will give to the college his collection of apparatus illustrating the anatomy of the larynx and nose. The gift will be known as the "Lefferts Collection."

PROSTATIC HYPERTROPHY AND SIMILAR CONDITIONS.

By WILLIAM B. JONES, M. D.,

ROCHESTER, N. Y.

Many old men have cystitis, retention of urine, or incontinence, from an abnormal condition at the prostatic urethra and neck of the bladder. It begins earlier than we have recognized and is often met with between fifty and sixty. Its complications, anæmia, premature senility, nephritis, uræmia, and septicæmia cause many deaths. It causes suffering so extreme and persistent that one who has once seen it dreads it more than the suffering of any other chronic disease, and is resigned to the death of his dearest friend because relief comes with death. It is constant torture which has caused a number to become insane, and others have committed suicide to escape it.

Every case is curable and the operation as now developed is safe, and sure to give relief. The complications mentioned result sooner or later from inability completely to empty the bladder and whenever that is discovered its cause should be determined and treatment begun.

If there is urethral stricture or vesical calculus it should be treated as required. If there is cancer in this region it may or may not be amenable to treatment. Paralysis of the bladder accompanies some diseases of the spinal cord. Cystitis dependent upon suppurating kidney, and tuberculosis of the bladder are easily diagnosticated by using the cystoscope and ureteral catheters. All the rest of the bladder troubles of old men are due to obstruction at the prostate.

This obstruction may be due to a general hypertrophy, but that is by no means always the case. A very small outgrowth is sufficient to obstruct the passage, if placed where most likely to do so, and a constriction is sometimes found at the vesical neck caused by contracture of the circular fibres that surround it. Both of these conditions may be present with a prostate that is not increased at all in size; which may, indeed, be even smaller than normal. The idea that prostatic obstruction depends upon prostatic hypertrophy *en masse* is fallacious. Unless a physician gets an entirely different conception of its cause he will often go wrong in diagnosticating this trouble. Diagnosis and the indications for treatment depend not upon the way the prostate feels to the examining finger, but upon the symptoms the patient has.

Hypertrophy can be relieved by any one of several operations. Those of which the Bottini is the type consist in placing a powerful cautery in the region of the prostate, estimating the position of the in-

strument, the position, shape, and size of the part to be attacked, the amount of heat developed by the cautery and its effect upon the tissues, and doing so usually twice, often three times. The traumatism is inflicted upon a bladder already inflamed, and it has to continue functioning and, in addition to accustomed work, has to dispose of blood, pus, and sloughs. Being done without the possibility of the operator's seeing the work, and never in any case completely removing all the cause of the trouble, it is unscientific and often unsatisfactory. It has been a great boon to many sufferers, however, and any measure of relief is welcome.

Suprapubic prostatectomy is practical and results justified its use until something better was devised. There is necessarily an incision through the anterior abdominal wall, the anterior wall of the bladder, and its posterior wall, to reach the prostate. Its removal then is usually bloody enough to be dangerous, and there is left an excavation into cellular tissue at the most dependent part of the bladder, which contains blood and stagnant urine and is not well drained. There is also the anterior incision, which often becomes infected. Septic absorption occurs from both places. The mortality is too high.

Perineal prostatectomy can now be done in a few minutes, in less time than any other operation, with loss of no blood that need be considered and without shock. When finished the patient has had the prostate almost entirely removed, or, if preferable, the operation can be modified to any extent, taking as much or little as is required and taking or leaving any part. If only a small pedunculated middle lobe is in the way it can be removed without disturbing the gland at all. Urethral stricture in any situation can be cured at the same time and vesical calculi or tumor can be removed. During convalescence there is continuous drainage of the bladder from its most dependent portion, the best possible cure for cystitis, and the greatest contrast to all the other operations which leave the condition within the bladder temporarily aggravated, and with poor drainage or none.

Perineal drainage is so surely a cure for cystitis that, in these cases, the worse the cystitis, the more need of perineal incision and the more haste about getting it done. That, if anything, will stop the extension of the process into the kidneys, and even after it has reached them it will help the patient. It enables the surgeon to cure every complication that is amenable to treatment and is the only operation that does.

To perform it, pass a grooved sound. Have it held in the median line. Cut a long incision through the skin and fat down to the perineal muscles. Push them backward, toward the coccyx.

Open the membranous urethra with a knife and make a clean median division of it backward. Soon the knife will be dividing the prostate. Continue for one half to three fourths of an inch into the gland. Remove the staff. Pass the finger into the prostatic urethra, which is quite large enough to admit it, and on into the bladder. This completes the exploratory incision and examination of the prostate and bladder. Now the operator decides what he will remove, part or all of the prostate, perhaps only a middle lobe which, projecting from the floor of the bladder, blocks its outlet like a ball valve; possibly tumors or a stone. If it is to be a typical prostatectomy the index finger begins upon the cut surface of the prostate to insinuate itself within the prostatic capsule along with the gland, and, like the camel in the fable, soon works its way all over inside and, having dislodged the occupant, thrusts him out. It may be removed entire or it may be easier to take each lobe separately. If necessary the middle lobe may be taken from within the bladder through the prostatic urethra. It is large enough to work through with scissors, and finger or forceps. Very dense fibrous prostates have to be taken away piecemeal, but if all work is done within the capsule there it not too much bleeding.

Dr. Parker Syms, of New York, has designed an instrument and method of using it that so improve the operation, that, when done in that way, it is properly called the Syms operation. It consists of a soft rubber bulb on the end of a soft tube. After the prostatic urethra is opened the bulb is passed through it into the bladder and is then inflated by injecting water into the tube, which is then clamped and pulled upon continuously during the enucleation. By this means the prostate is brought so far down that it is easily manipulated, it cannot rise out of reach, there is a foreign body within the bladder that enables the operator to recognize that organ and to avoid tearing holes in it, there is a firm mass assisting by counter pressure every movement of the working finger, and, a very important matter, there is pressure of all the operative region against the bony pelvis that entirely prevents hæmorrhage. I have often shed less blood in the whole of an operation than would be required to saturate a large pocket handkerchief. Afterward the water is allowed to escape from the bulb through the long tube and both are withdrawn.

It is advisable to have due regard for anatomy and proper respect for the plexus of venous sinuses that lies just outside the capsule, or the bleeding may be frightful.

The operation is easily done in from five to fifteen minutes; there is no appreciable shock; nearly every patient begins to sit up out of bed the second day, many do so on the first; and there is immediate re-

lief from pain and vesical spasm. The first words of one man were "What a relief that is." Of another, "God bless you, God bless you," and he continued to greet me that way for days afterward, when his mind was not confused from the anæsthetic. Most of my patients have voluntarily told me, and before the operation, that they were resigned to any possible unfavorable result, wishing to die unless they could be cured.

A CASE OF RUPTURE OF QUADRICEPS EXTENSOR FEMORIS MUSCLE.

By A. J. RONGINSKY, M. D.,

NEW YORK,

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Dr. Stetson, in the *Boston Medical and Surgical Journal* of August 13, 1903, states that only one case of rupture of the quadriceps extensor femoris muscle has been reported. I will, therefore, report the following case:

Patient, male, aged fifty-eight years; Austrian, and by occupation a tailor. Eight months ago while walking slipped and fell. He was carried home and a physician was immediately summoned.

At the time I saw him to be examined for admission to the Lebanon Hospital, I found a starch bandage applied to the injured extremity from about the middle of the leg to the middle of the thigh. An opening had been made in front of the patella, apparently to watch the progress of the joint. On removing the bandage I found the lower end of the muscle at a point about three inches above the knee joint; the patella was in front of the tibia below the tuberosity. A marked depression existed between the bones. Walking could be accomplished with the aid of a cane only. The greatest pain he experienced was when he attempted to lift his leg, as when walking upstairs.

I admitted him to the hospital, and later, Dr. L. M. Kahan, the house surgeon at the time, told me that the diagnosis has been confirmed by Dr. Parker Syms, the attending surgeon. Radical treatment was advised, but he refused to undergo any operation, fearing that he would not withstand it. Various measures were instituted to improve his condition, but without any satisfactory results, and at the end of four weeks he was discharged.

Four weeks later he came to see me at the Carmel Dispensary, and, on examination, I found the same condition, with the exception of more pain around the joint. Fixation of the patella with adhesive plaster and tight bandaging of the thigh, to fix the muscle, relieved him for a few hours only. Later, I devised a sort of a brace, made of soft leather, to fit all around the lower border of the patella; and I lifted the patella up by attaching adhesive strips from the lower end of the quadriceps to the sides of the leather supporter. His gait greatly improved under this treatment.

154 HENRY STREET.

THE OPERATIVE TREATMENT OF
CHRONIC BRIGHT'S DISEASE; A
SECOND COMMUNICATION,
BASED ON REPORTS OF
ONE HUNDRED AND
TWENTY CASES.*

By RAMON GUITERAS, M. D.,

NEW YORK.

(Concluded from p. 885.)

5. *Results.*—Some patients recover and have perfect health for months or years after the operation, usually those whose cases are diagnosed as chronic interstitial nephritis and movable kidney in which one kidney is operated upon. In a great many cases the œdema persisted after the operation.

The urine was normal in a number of cases after the operation, principally in cases of movable kidney. It would be interesting, however, to know what is meant by the statement that the urine is "perfectly normal"—whether it means that there are no pathological manifestations in it, such as albumin and casts, or whether it also includes a normal percentage of solids, urea, chlorides, etc.

The urine was improved in other cases, as shown by the albumin and casts disappearing, although the excretion of urea, chlorides, etc., was about the same; in other cases albumin and casts still persisted, though less marked. A great many patients showed no improvement in the urine.

The best results have been obtained in cases of movable kidney in which albuminuria and cylindruria or other symptoms of Bright's disease were present, but disappeared after decapsulation and fixation of the movable organ. It would seem therefore that the operation upon its non-movable mate should consequently not be performed, as has been advocated by some operators.

In other cases in which both the movable and non-movable organs show symptoms of Bright's disease, as has been proved by ureteral catheterism, these signs often disappear after the movable kidney has been decapsulated and fixed. If they do not, however, after a reasonable time has expired, the second kidney, its mate, can be operated on.

The statistics of one hundred and twenty cases sufficiently well reported to allow of computation show sixteen per cent. cured, forty per cent. improved, eleven per cent. unimproved, thirty-three per cent. deaths. These statistics are tabulated in the tables following this article.

In cases of interstitial nephritis the results often appear brilliant, as the albumin and casts disappear

from the urine, but the amount of solids excreted may remain the same.

The mortality in chronic interstitial nephritis was twenty-six per cent.; in chronic parenchymatous, twenty-five per cent.; in chronic diffuse, seventy-five per cent.

Death after the operation may be due to any of the following causes: Exhaustion, uræmic coma, œdema of the lungs, acute dilatation of the heart, asthenia, apoplexy, uræmia, and heart failure, exacerbations of chronic nephritis sometimes occurring after the operation as a result of cold and exposure, heart failure, collapse, general purpuric extravasation coming on during the operation, and myocardial thrombosis. Death from uræmia may occur from a few days to several weeks after the operation. Some patients had acute pyelitis after the operation, while others had surgical diseases of the kidney, so called, when operated upon. In order to understand cases better before and after operation, separate urines should be obtained and examined by ureteral catheterism or segregation.

It must be remembered that the operation for chronic nephritis by decapsulation is yet a new procedure, and one that has not been fully threshed out, and which may require many modifications. We can remember when hysterectomy, prostatectomy, intestinal anastomosis, and even herniotomy were considered difficult and dangerous operations, while now they are thought to be easy to the average surgeon. Therefore let us hope that these hitherto despaired of cases may some time be cured radically, without danger, by the surgeon's knife.

Conclusions: 1. Chronic nephritis should not be operated upon until medical treatment has proved of no avail.

2. The time for operation is when it is noticed that the process is advancing rapidly and we fear that the heart will soon become overtaxed.

3. The operation for chronic Bright's which has proved least dangerous and which has shown the best result is nephropexy performed on a single movable kidney.

4. The most unfavorable cases for operation are those of diffuse nephritis.

5. Cases of general anasarca with bad heart action should not be operated upon; if the heart action is good an operation performed as a *dernier ressort* may give the patients a few extra months of life provided they survive it.

6. Where there has been a marked destructive process in the kidneys as a result of a nephritis, the operation may relieve them for a number of weeks or months, but they generally fail again and die when the new capsule begins to contract.

75 WEST FIFTY-FIFTH STREET.

* Read before the Genitourinary Section of the Congress of American Physicians and Surgeons, Washington, D. C., May 11, 1903.

Case Number	Sex, Age, Occupation.	Duration of Disease.	Symptoms. Diagnosis (in italics).	Character of Urine Before Operation.	Nature of Operation.	Character of Urine After Operation.	Result and Remarks.
1	Male. 32 years. Occ., merchant.	Over 2 yrs.	Those of prolapsed R. kidney.	10 to 50 oz. in 24 hrs. S. G., 1020. Urea, normal. Alb., trace. Casts, hyal. and small gran.	Decapsulation. (7) and fixation. [Dr. W. T. BELL, FIELD, Chicago.]	Unchanged.	Floating kidney symptoms relieved. Gen. condition improved.
2	Male. 38 years. Occ., bookkeeper.	Over 2 yrs.	Albuminuria. <i>Chron. interstit. nephritis.</i>	900 to 1500 c.c. in 24 hrs. Straw color. S. G., 1015 to 1020. Urea, 3 p. c. normal, varying but always subnormal. Alb., 1 p. c. Casts, hyal. and gran., very numerous.	Decapsulation. [Dr. A. C. BERNAYS, ST. LOUIS.]	[Slightly more albumin. More casts.]	No improvement. Still alive. Cond. about same. Little more albumin. <i>Remarks:</i> May live a long time. Still has interstit. nephritis. Takes good care of himself.
3	Not stated. Not stated. Pauper.	Not stated	Symptoms not stated. <i>Chron. Bright's disease.</i>	Not stated.	Decapsulation. [BERNAYS.]	Not stated.	Died of uræmia 3 mos. after operat. No benefit. <i>Remarks:</i> "I will never operate again. I do not consider that the oper'n is based on sound patholog. and surg. principles." — Bernays.
4	Male. 60 years. Occ., butcher.	Ab't 8 yrs.	Shortness of breath. Emaciation; pallor; great debility. Uræmia; Cheyne Stokes resp. Semicomatose. Convulsive tendency. Oedema confined to extremities. Seemingly moribund at oper. <i>Chron. interstit. nephritis.</i>	Excessive in 24 hrs. Pale. Low S. G., 1020. Alb., slight. Casts, chiefly gran.	Not described. [Dr. J. E. BINGHAM, WALLA WALLA.]	Alb. disapp'd. Normal save for occas. gran. casts.	Recovered slowly but surely. Returned to usual work. Symptomatic cure perfect. Restoration of general vigor. <i>Remarks:</i> Operation was accepted as a "forlorn hope."
5	Female. 39 years. Occ., housewife.	For years.	Oedema. Dyspnoea. Infrequency of micturition. Also tuberc. of rectum; later of lung. <i>Diffuse nephritis.</i>	Amount in 24 hrs. diminished. S. G., 1020 to 1026. Urea, 1.13 p. c. Alb., 1 p. c. Casts, few hyal. and gran. A little free fat. Few round cells. Pus present for 9 yrs. or more. No tub. bac.	Decapsulation. [Dr. J. B. BLAKE, Boston.]	Urea, incr. to 1.64 p. c., but not in actual quantity. Alb. not much changed. Before death much pus but few or no casts.	Seemingly benefited. (Oedema disapp'd. from extremities but appeared in face. Up and about until 2 days before death (from tuberc. of rectum and lung; probably also kidney), 6 mos. after operation.
6	Male. 26 years. Occ., clerk.	6 months.	Dyspep. and malaise, 6 mos. Backache, oedema, dark urine for 2 or 3 wks. before operat. Nausea, no vomit. Path. diag. of specimen taken at operat. <i>Subacute glomerulonephritis.</i> Vomited for 12 hrs. on 3d day after operat. Failed steadily. Not unconscious.	S. G., 1029. High color. Alb., 1/4 p. c. Casts, many and fine, gran. Small round cells, leucocytes, blood corp. and renal cells adherent. Small amt. of fat. Few red corp.	Decapsulation. [BLAKE.]	But little changed. Incr. in red corp., 14 oz. on day after operat.; 20 oz. on 3d day.	Death in 4 days. Steady exhaustion. No suppression of urine. No uræmia
7	Male. 29 years. Occ., laborer.	About 3 mos. before operation.	Chilly; fever; slight cough; headache, nausea and vomg; incr. micturition (scanty and dark). Anorexia. Patient pale, fat. Very severe oedema. <i>Chr. parench. nephritis.</i> Bronchopneum. about 6 wks. after operation.	20 to 40 oz. in 24 hrs. Smoky; acid. Urea varied from 0.7 to 2 p. c.; about 1 p. c. on average. Very many gran. and hyal. casts, with renal cells, fat drops and blood adherent; few squam. epithel.; small round cells, leucocytes, and red corp.	Decapsulation. (2) Jan 27, '03. Moderate shock. Very violent after operat., tearing off dressings and infecting wounds. [BLAKE.]	Urine dimin. then incr. Mar. 4th, 80 oz. in 24 hrs.; 6 wks. later, 40 oz. in 24 hrs.; pale, acid. S. G., 1020. Urea, 1.7 p. c. Alb., 1/2 p. c. Many fatty granular renal cells, and abnormal blood globules. Casts of large diameter, fine, gran., with epithel. cells adherent. Fat drops, blood. Few fat casts.	Improved at discharge, 3 mos. after operation.
8	Male. Age, not stated. Occ., not stated.	Not stated	Gen. anasarca. Had been tapped 11 times before operat. at 2 wk. intervals. Blood exam. hemoglobin 40 to 50 p. c. <i>Chronic parenchym. nephritis.</i>	Alb., 10 to 20 p. c.	Decapsulation of both kidneys Apr. 11, 1902. Primary union both wounds. Convalescence rapid. [Dr. W. T. BULL, New York.]	18 days later alb., 17 p. c.	18 days later general cond. somewhat improved. Tapped 3 times after operat. at 3 wk. intervals. 3 wks. after operat. nausea returned. 2 mos. later began to fail. Puffiness of eyes and face. Apical systol. murmur. Flatness extreme at both bases of lungs.

Case Number.	Sex, Age, Occupation.	Duration of Disease.	Symptoms. Diagnosis (<i>in italics</i>).	Character of Urine Before Operation.	Nature of Operation. Operator.	Character of Urine After Operation.	Result and Remarks.
	Male. 12 years. Occ., cab driver.	Probably 5 mos. at least.	Freq. micturit. Very severe oedema. Anorexia. Insomnia. Epigast. pain. Headache. Diarrhoea. Always a hard drinker. <i>Chron. parench. nephritis.</i>	30 to 40 oz in 24 hrs. Smoky S. G., 1019 Urea, 1.82 p. c. Alb., $\frac{1}{4}$ p. c. Fine gran. and hyal. casts with many fat drops and fatty renal cells adherent. Some fatty renal and compound granular cells. Triple phosph.	Decapsulation 9 mos. ago. No post-operation shock. [Dr. H. L. BELL, Boston.]	Pale. Acid. Increased in amt to 150 oz. S. G., 1020. Urea 2 p. c. Alb. 1-10 p. c. Casts hyal. and fine and coarse gran.; degenerated renal cells adherent. Calcic oxalate.	Quickly began to feel better. (Edema began to disappear in 2 wks., gone in 6 wks. Much improved. Feels well and working hard 9 mos. after oper.
10	Male. Middle age. Occ., not stated.	Not stated	Six convulsions about a wk. before operat. Remained stupid, at times delirious, up to operat. Clin. hist. suggested interstit. nephritis. At operat.: Kidneys of normal size, dark purple, surface somewhat granular. Capsules thin, stripping readily, except occasionally in depressions between lobes.	Alb. and casts. rapid.	Decapsulation under ether. Mar. 27, 1902 Oper. in a little over $\frac{1}{2}$ hr. Well borne, good recovery from anæsthetic. [Dr. A. T. CABOT, Boston.]	Quantity Incr. Casts dimn., but neither casts nor alb. wholly disappeared.	A short convulsion evening of operat. <i>Tachycardia</i> on extub. Resuscitation favorable. Appetite returned. Sat up daily in less than 1 mo. Benefited by operat. 1000 suddenly 7 wks. after operat., though seemingly as well as usual, exc. for return of irreg. and intermit. <i>hypertension</i> . <i>Refractory</i> P. M.—Marked arteriosclerosis of kidneys. Heart dilated and firmly adherent in pericardium, result of old adhesive pericarditis.
11	Female. 33 years. Occ., not stated.	Not stated	Pale and flabby. Much ascites, requiring aspiration at short intervals. Persistent headache. Anorexia. Weakness. Condition desperate. Apparently <i>chron. parench. nephritis</i> . At operat. kidneys found similar to those in Case 10.	Alb. and casts very small quantity.	Decapsulation. Mar. 27, 1902 Well borne. [CABOT.]	Quantity Incr. Casts dimn. Neither casts nor alb. wholly disappeared.	Improvement began soon after operat., not so marked as in Case 10. Headache disapp'd. As cit. collected more slowly. Took food better and regained some strength. <i>Remarks</i> : Cabot considers her certainly no worse, but cannot yet state that operat. was a great success.
12	Female. 28 years. No occupation.	Known for 2 years only.	Dropsy under eyes; later around ankles. Facial pallor. Debility. Cardiac dyspnoea; at times vomiting; headache; vertigo; defect. vision. Uremic symptoms at times. Well marked oedema. <i>Chronic parench. nephritis.</i>	Quantity, 2 oz in 24 hours High color. S. G., 1013. Urea 8.64 grains per oz. Alb., always present from 0.5 to 0.25 p. c of amt. boiled.	Decapsulation 120 under mos favorable circumstances. [Dr. H. O. COATES, Cleveland.]	During 24 hours after operation 2,000 c.c. Light straw color. Acid. Alb. trace. Urea in much Incr. in proportion. Casts difficult to find.	Recovery uneventful. Much improved for several mos. Large urinary secretion continued. Relapsed later. <i>Remarks</i> : Operator says: "The temporary relief and result obtained by operation in this case is unquestioned and even though she has slipped back into old condition there was no other expedient we could turn to in such a threatening case. I must, esp. since all palliative measures had been exhausted.
13	Male. 19 years. Occ., clerk.	2 years.	Gen. oedema. Puffiness under eyes. Swollen legs. Weak eyesight. Frequent urination, occas. hæmaturia. Dizziness frequent, fainting occasionally. Cold sweats. Pale and doughy appearance.	Passed 600 c. c. in 24 hrs. Mar. 23, 1903. S. G., 1010. Very acid. Urea, 36 grms. in 24 hrs. Alb., 0.9 p. c. Many hyal casts, fine and coarse gran. Many red blood corpuscles and epithelia.	Edebohls's oper. 2 days later. Chloroform. Time, 25 min. In hospital 24 days after oper. [Dr. G. W. COLE, Cleveland.]	24 hrs. after operat., 1,500 c.c. in 24 hrs. Straw color cloudy. S. G., 1014. Slightly acid. Urea 28.5 grains in 24 hrs. Alb., 0.4 p. c. No sediment. Few hyal casts, leucocytes, squam. epithel. Calc. oxal. crystals	Improved.

Case Number	Sex, Age, Occupation.	Duration of Disease.	Symptoms. Diagnosis (<i>in italics</i>).	Character of Urine Before Operation.	Nature of Operation. Operator.	Character of Urine After Operation.	Result and Remarks.
14	Male. 10 years. No occupation.	Four mos. prior to operat.	Intermittent oedema of face, low, extrem., scrotum; later of chest, back and abdom. Vertigo. Occas. nausea and vomiting. Dyspnoea. Ascites. Under med. treatment till 2 days before operat. Abdom. tapped several times. General condit. became worse. Anæmia. Basal pulmon. oedema. Abdom. 31 inches. Just previous to operat. 4,220 c. c. of fluid drawn from abdomen.	300 to 800 c. c. daily. Smoky. Acid. S. G., 1010. Alb., $\frac{1}{8}$ to $\frac{1}{4}$ p. c. Casts, many hyal. and fine gran. Fat and renal cells adherent. Many small round cells. Pus free and in clumps. Squam. epithel. Urine incr. under med. treat. to 1000-2500 c. c. daily, diminishing to 600 c. c.	Jan. 1, '03. Edebohls' decortication of both kidneys at one sitting (1 hr. 20 min.). Ether. L. kidney cd. not be delivered through wound, and only lower end of R. kidney. Reacted well, conscious 45 min. later. [Dr. H.W. CUSHING, Boston.]	Not stated.	Much relieved. Oedema quickly disappeared exc. from lower extrem. Scrotum normal in few days. Died sudd. of pulm. oedema, 19 days after operation. <i>Remarks:</i> Operat. as last resort.
15	Male. 48 years. Occ., lawyer.	8 or 10 years.	<i>Gonoc. infect., pyelitis, nephritis</i> , in order mentioned. All usual symptoms. Uræmia later.	50 to 60 oz. in 24 hrs. S. G., 1010. Urea, 0.5 to 0.7 p. c. Alb., $\frac{1}{2}$ grm. to litre. Casts, very few, hyal. and epithelial. Always pus, gonococci. Streptococci and colon b.	Not described. L. kidney only. [Dr. I. N. DANFORTH, Chicago]	Not stated.	Death from uræmia about 2 wks. after operat. <i>Remarks:</i> Very unpromising case. Operat. too long delayed.
16	Female. 18 years. Occ., not stated.	1 year.	<i>R. chron. interstit. nephritis.</i>	No data.	Nov. 29, '02. R. nephropexy. [Dr. G. EDEBOHLS, New York. Dr. E. includes 19 other cases, but data insufficient.]	Urine norm. 2 mos. after oper. and remained so till last exam., April 4, 1901.	Perfect health.
17	Female. 39 years. Occ., not stated.	Unknown.	<i>R. and L. chron. interstit. nephritis.</i>	No data.	Bilat. nephropexy. Oct. 3, 1893. [EDEBOHLS.]	Not stated.	6 wks. after operat., Bright's dis. unimproved. <i>Remarks:</i> Not seen since.
18	Female. 28 years. Occ., not stated.	Several years.	<i>R. chron. diff. nephritis</i> , with formation of large cysts.	No data.	R. nephrotomy with evacuation of cyst contents and nephropexy. [EDEBOHLS.]	Not stated.	Nephritis persisted for 8 yrs. Died from abdom. hysterectomy.
19	Female. 25 years. Occ., not stated.	Short while.	<i>L. chron. interstit. nephritis.</i> R. kidney healthy.	No data.	Bilat. nephropexy. Nov. 1, 1896. [EDEBOHLS.]	Normal 4 mos. after operation.	Bright's dis. permanently cured. Five yrs. later, urine normal. Patient in perfect health.
20	Female. 42 years. Occ., not stated.	6 years.	<i>R. chron. interstit. nephritis.</i> Under treat. for 6 yrs. prior to operation.	No data.	R. nephropexy. Apr. 1, 1897. [EDEBOHLS.]	Urine became normal 1 year after. Remained so.	In perfect health 4 yrs. and 6 mos. later.
21	Female. 20 years. Occ., not stated.	Short time.	<i>L. chron. interstit. nephritis.</i> R. Kidney healthy.	No data.	Bilat. nephropexy. [EDEBOHLS.]	Normal 1 month after operation.	Perfectly well 9 mos. later.
22	Female. 38 years. Occ., not stated.	Several months.	<i>R. and L. chron. interstit. nephritis.</i>	No data.	Bilat. nephropexy. [EDEBOHLS.]	Normal 5 mos. later.	In good health 2 yrs. 9 mos. later.
23	Female. 45 years. Occ., not stated.	Short time.	<i>L. chron. interstit. nephritis.</i> R. kidney healthy.	No data.	Bilat. nephropexy. [EDEBOHLS.]	Normal 4 mos. later.	Gouty but otherwise well 2 yrs. 7 mos. later.
24	Female. 42 years. Occ., not stated.	5 months.	<i>R. chron. interstit. nephritis.</i> L. kidney questionable.	No data.	R. nephropexy. [EDEBOHLS.]	Alb. and casts almost disapp'd 3 wks. later.	Not seen since.
25	Female. 29 years. Occ., not stated.	6 months.	<i>R. chron. interstit. nephritis.</i> L. kidney healthy.	No data.	Bilat. nephropexy. [EDEBOHLS.]	No change 4 wks. after.	Unchanged 1 mo. later. Not seen since.
26	Female. 28 years. Occ., not stated.	Unknown.	<i>R. chron. interstit. nephritis.</i> L. kidney healthy.	No data.	Bilat. nephropexy. [EDEBOHLS.]	No change 4 wks. after. Normal 1 year later.	Died of ruptured tubal pregnancy 1 year later.
27	Female. 22 years. Occ., not stated.	Discovered just prior to operat.	<i>L. chron. interstit. nephritis and acute perinephritis.</i> R. kidney normal.	No data.	Bilat. nephropexy. [EDEBOHLS.]	Urine normal 2 months after.	Good health 1 year later.
28	Female. 19 years. Occ., not stated.	Discovered just prior to operat.	<i>R. and L. chronic interstit. nephritis.</i>	No data.	R. nephropexy. L. ditto 5 mos. later. [EDEBOHLS.]	Urine normal 6 months later.	Not stated.
29	Female. 23 years. Occ., not stated.	1 year.	<i>Advanced R. and L. chron. diffuse nephritis.</i>	No data.	Bilat. nephropexy. [EDEBOHLS.]	Decided improv. 6 mos. after. 1-3 the amount of alb. Casts less numerous.	Improved in other respects 6 months after.
30	Female. 31 years. Occ., not stated.	Discovered shortly before operation.	<i>R. and L. chron. interstit. nephritis.</i>	No data.	Bilat. nephropexy. Apr. 15, 1901. [EDEBOHLS.]	Nov. 4, 1901. normal exc. for low S. G.	Improved.

Case Number.	Sex, Age, Occupation.	Duration of Disease.	Symptoms Diagnosis (<i>in italics</i>).	Character of Urine Before Operation.	Nature of Operation.	Character of Urine After Operation.	Result and Remarks
81	Female. 33 years. Occ., not stated.	Discovered 1 month prior to operat.	<i>R. and L. chron. diffuse nephritis</i> , with extensive cyst formation in <i>L. kidney</i> .	No data.	Bilat. nephropexy. May 5, 1901. [EDEBOHLS.]	Nov. 6, 1901, only slight evidence of renal disturbance.	Improvement began soon after operat., as shown by uranalysis. Nov. 6, '01. <i>Remarks:</i> Piece of kidney removed showed advanced chron. Bright's dis. under microscope.
82	Female. 33 years. Occ., not stated.	Alb. first found '96. Continuous suffering from chronic Bright's since May, '99.	Patient sinking rapidly. 19 days later skin incised at several places; 8 days later 2½ gals. fluid drawn from abdom. 2 days later face pallid and puffy. Patient water-logged. P. 120; T. 100 F.; R. 30. Oedema both low. lobes of lungs. <i>Large white kidney on both sides.</i>	Sept. 23, 1901, Urine 27 oz. daily. S. G. both kidneys, 1020. Alb., 50 to 70 p. c. Abundant casts. Quantity steadily dimin. and for 2 wks. prior to oper. only 10 to 12 oz. daily.	Excision of capsule proper of both kidneys. Oct. 17, 1901. Silk worm gut strands for drains. [EDEBOHLS.]	Alb., 40 to 50 p. c. All kinds of casts abundant. S. G., 1014 to 1025. 39 to 46 oz. daily.	2 mos. after operat. acute pyelitis. Still in doubt.
83	Female. 39 years. Occ., not stated.	Some months.	Mild sepsis 2 wks. post partum. Large tumor on R. side of uterus, grew smaller as severity of sepsis incr. Tumor (sloughing fibroid) with several younger fibromata removed by abd. sect.; vagin. drainage. Double pneumonia. Later urin. fistula. Acute infect. of R. kidney about 4 wks. after operat. Gen. sepsis. R. kidney removed 3 mos. later. Since then pallor, puffiness of face and oedema persistent. <i>Chron. Bright's dis.</i> , with some insidious infection of kidney.	Alb. and casts, with small quantity of pus.	Decapsulation. [EDEBOHLS.]	For 12 days aver. of 66 oz. passed.	Patient out and feeling well 1 mo. after operation. <i>Remarks:</i> Kidney showed microscopically multiple foci of septic nephritis.
34	Male. 23 years. Occ., not stated.	Discovered about 3½ mos. before operation.	Sudden blindness during apparent health. Exam. of eyes and urine showed chron. Bright's dis. At operat. almost total blindness, profound uræmia. Heart greatly hypertrophied, action tumultuous. Mitral regurg. <i>Far advanced chron. interstit. nephritis.</i> Kidneys ½ normal size.	Uranalysis showed Bright's dis.	Decapsulation. Apr. 11, 1902. [EDEBOHLS.]	No data.	After oper. uræmia gradually deepened. Severe epistaxis and repeated plugging of nares, on 7th day. Death from uræmic coma and exhaustion on 8th day.
35	Male. 21 years. Occ., not stated.	Known about 18 months prior to operat.	Albuminuria. Gen. dropsy. Retinitis albuminurica. Heart greatly hypertrophied. Aortic stenosis. <i>Advanced chron. diffuse nephritis, with beginning contract. of kidneys.</i>	Albuminuria.	Decapsulation. Apr. 16, 1902. [EDEBOHLS.]	No data.	Did well for some mos. after operat. Gained strength. Recovered eyesight to a great degree. Acute pleuritis 6½ mos. later. Recovered. Uræmic symptoms 8 wks. later. Death, preceded by uræmic coma and epistaxis, 9 mos. after operation.
36	Male. 34 years. Occ., not stated.	5 years.	Gen. oedema. Bronchorrhœa; bronch. hæmorrh. intense dyspnoea; uræmic headaches. At operation enormous hypertroph. of heart and beginning dilatation. Both kidneys shrunk to less than normal. <i>Chronic interstit. nephritis.</i>	No data.	Decapsulation. Apr. 21, 1902. [EDEBOHLS.]	No data.	Died of uræmia 3 days after operat. <i>Remarks:</i> Operat. not advised but undertaken at patient's earnest pleading.
37	Male. 22 years. Occ., not stated.	5 years.	Immense gen. anasarca and ascites. Abd. tapped 5 times within 4 wks. prior to operat., last time on morning of operat. At this time extreme gen. anasarca, double hydrothorax and feeble heart. <i>Typical parenchym. nephritis; large white kidney on both sides.</i>	No data.	Decapsulation. May 2, 1902 [EDEBOHLS.]	No data.	Acute fibrinous lobar pneumon. developed in upper half of R. lung on 4th day after oper. Died of pulm. oedema on 6th day after operation. <i>Remarks:</i> Patient in desperate condition at time of operat.
38	Male. 62 years. Occ., not stated.	About 5 months prior to operat.	Failure of sight led to discovery of characteristic retinal changes. Moderate card. hypertr. with aortic obstruct. at time of operat.	No data.	Decapsulation. May 26, 1902. [EDEBOHLS.]	No data.	Sudden death from acute dilat. of heart 12 hrs. after operation.

Case Number	Sex, Age, Occupation.	Duration of Disease.	Symptoms. Diagnosis (<i>in italics</i>).	Character of Urine Before Operation.	Nature of Operation.	Character of Urine After Operation.	Result and Remarks.
39	Male. 61 years. Occ., physician.	Discovered by pat't about 10 mos. previously.	Edema of face and hands; progress weakness; rapid aging; uræmia; tumultuous heart action; great dyspn. on exertion. Effusion into both retina 3 mos. before operat. Card. hypertr. and systol. bruit over apex, base and aorta, with dirotic pulse, at time of operat. Gen. arterio sclerosis; extensive neuroretinitis albuminuria. <i>R. and L. chron. interstit. nephritis.</i>	Uranalysis led to discovery of condition.	Decapsulation, May 26, 1902. [EDEBOHLS.]	No data.	Improvement after operat. maintained 3 mos. Gradually grew worse. Intensified dyspnea; unable to retain food. Died 5 mos. 11 dys. after operation.
40	Male. 50 years. Occ., physician.	Discovered by pat't about 13 mos. previously.	Patient awoke with partial R. hemiplegia. Examined urine and found chron. Bright's d. Hemorrh. in to L. opt. n., followed by transient total blindness 4 mos. before operation. Slight edema; stomach disturbance; progr. loss of strength; tumultuous heart action; urgent or dyspnea. Lungs emphysem. Heart hypertr. to verge of dilatation. Occasional aort. regurg. murmur. Dirotic pulse. Operat. disclosed <i>chron. interstit. inflamm. of both kidneys.</i>	Condition discovered by uranalysis.	Decapsulation, May 26, 1902. Anæsth.: nitr. oxide and oxygen. To avoid death on table, changed to ether and sub. seq. to chlorof. Operat. took 33 min. [EDEBOHLS.]	No data.	Death sudden from acutedilat. of heart during vomiting 12 hours after operat. <i>Remarks:</i> Patient in a desperate condition at time of operation.
41	Male. 57 years. Occ., physician.	Discovered 1 year prior to operat.	Nephrolithiasis and acute nephritis 30 years ago. Cerebr. embolism and hemiplegia, lasting 1 yr., 7 yrs. ago. Retinitis albuminurica. Card. hypertr.; beginning dilat.; mitral regurg.; gen. arteriosclerosis. Operat. showed <i>bilat. chron. diffuse nephritis.</i>	No data.	Decapsulation, June 14, 1902. Gas and ether. [EDEBOHLS.]	Only 640 c. c. during 56 hrs. after operation.	L. hemiplegia (cereb. orig.) on day after operat. Card. failure from beginning; kidney action deficient. Death from uræmia and card. failure 56 hrs. after operat. <i>Remarks:</i> Operat. insisted on by patient.
42	Male. 29 years. Occ., not stated.	Discovered 1 year prior to operat.	Short breath; increasing weakness. Mild typhoid 4 mos. after kidney condition discovered. Immense card. hypertrophy; galloping rhythm. Apex beat displ. to L. 2 mos. later. Severe diphtheria 3 mos. before operat. Great edema of feet; ascites. <i>Chron. interst. nephritis found on both sides; R. kidney contr. to ½, L. to 1-3 normal.</i>	No data.	Decapsulation, both kidneys, June 26, 1902. [EDEBOHLS.]	No data.	Never did well after operat. Died 4 mos. later of card. dilat.
43	Male. 23 years. Occ., not stated.	Recognized 11 mos. before operat.	Typhoid, 1893. Never strong since. Two years before operat. loss of strength, facial edema, digestive troubles, uræmic symptoms. General arteriosclerosis. Heart hypertroph. Aortic systol. bruit. <i>Chron. R. interstit. nephritis. K. less than half size. Huge cyst of L. kidney, no renal tissue, found at operation.</i>	Discovered by uranalysis.	Operat., Nov. 26, 1902. R. kidney cut down on. Cyst from L. kidney removed entire. [EDEBOHLS.]	Fair quantity daily.	Uræmia present at operat. gradually deepened. Death in uræmic coma 15 days after operat.
44	Female. 43 years. Occ., not stated.	2 years.	Card. hypertr. Double mitral murmur. At oper. advanced <i>bilateral chron. interstit. nephritis.</i> Kidneys less than half size.	No data.	Bilateral renal decapsulation. [EDEBOHLS.]	No data.	Left hosp. 1 mo. after oper. Resumed dissolute habits. Died 1 year after oper. in almshouse hospital. <i>Remarks:</i> Death certif. gives <i>chron. interstit. nephritis and endocarditis.</i>
45	Male. 26 years. Occ., physician.	Recognized 18 mos. before operat.	Five attacks of grippe between 1896 and 1900. Hematuria 3 days during last attack; blood in urine ever since. Five members of family died of renal hæmaturia. <i>Bilateral chr. interstit. nephritis.</i>	No data.	Decaps. of both kidneys, Jan. 27, 1902. [EDEBOHLS.]	Urine showed a steady tendency toward normal, in spite of setbacks.	Improved. Last seen in Nov., 1903. Was then suffering from severe cold, with hæmaturia and exacerbation of chr. nephritis.

Case Number.	Sex, Age, Occupation.	Duration of Disease.	Symptoms. Diagnosis (<i>in italics</i>).	Character of Urine Before Operation.	Nature of Operation. Operator.	Character of Urine After Operation.	Result and Remarks.
46	Male. 36 years. Occ., physician.	3 years.	Cold extremities, headache, pain in back and calves, palpitation, pulse full and bounding, lassitude, weakness, powdery condition of skin of hands. Father died of chr. Bright's. <i>Bilat. chron. diffus nephritis.</i>	No data.	Bilateral renal decapsulation, Mar. 26, 1902. [FERGUSON.]	Urine showed a steady tendency toward normal, in spite of drawbacks.	Improvement in all symptoms 10 mos. after operation.
47	Male. 57 years. Occ., physician.	Recogniz'd 17 years before operat.	Diphtheria 9 yrs. before recognition of kidney condition, followed by gen. paralysis. Eyesight failed, retinitis albuminurica, chr. Bright's diagnost. 17 yrs. before operat. Edema, uræmic headaches, backaches, gout. <i>Bilat. chron. diff. nephritis.</i>	No data.	Decapsulation. [FERGUSON.]	Urine showed a steady tendency toward normal, in spite of setbacks.	Improvement reported 7½ mos. after operation.
48	Male. Adult. Occ., not stated.	No data.	Convulsions, vomiting, edema. Hemorrh. at operat. profuse. One kidney double normal size in inflamed fatty tissue, cont. many new blood vessels. Microscop. <i>Subacute glomerulo-nephritis.</i> Capsule thin, kidney smooth.	No data.	Entire decapsul. of both kidneys. [Dr. J. W. L. Elliot, Boston.]	Urea low but not remarkable, considering decubitus. Total quantity of urine returned shortly to normal.	Improved very much within 2 wks. (Edema and headache gone. No convulsions. Feels well. Blood tension lower.
49	Male. 10 years. No occupation.	No data.	Scarlet fever followed by chronic nephritis (type not stated). No kidney excised for examination.	No data.	Decapsulation. [ELLIOT.]	No data.	Seems brighter. Some improvement later.
50	Female. 25 years. Occ., not stated.	No data.	Painful, tender, floating and enlarged R. kidney. <i>Nephritis.</i>	20 oz. in 24 hrs. 30 p. c. alb.	Nephrorrhaphy. Capsule stripped off. June 17, 1896. [Dr. A. FERGUSON, Chicago.]	Increased in quantity; alb. decreased.	Not given. <i>Remarks:</i> Case lost sight of.
51	Female. 30 years. No occupation.	No data.	Kidney pain for 12 yrs., esp. on R. Two freely floating kidneys, <i>nephritis and hysteria.</i>	Abundant; pale; alb., trace.	Capsule stripped from both kidneys, stretched to lumbar fascia. [FERGUSON.]	No data.	Good recovery. Marvelously improved. <i>Remarks:</i> Did all her housework within 6 mos.
52	Female. 17 years. No occupation.	Ill for 3 years.	Dizziness, L. kidney pain, beginning after child-birth. Tissue removed showed <i>interstit. nephritis.</i>	24 oz. in 24 hrs. Normal, exc. A few hyal. casts.	Jan. 4, 1899. Decapsulation, multiple punctures, and fastened it up. [FERGUSON.]	Normal in quantity and character 1 year later.	Symptomatically cured 4 yrs. after operat. <i>Remarks:</i> Immediate relief. Aching in L. side for a year—treated by electricity.
53	Female. 26 years. Occ., not stated.	No data.	Chron. R. kidney pain. Freely movable. Tissue removed showed <i>interstit. nephritis.</i>	No data.	R. nephrotomy (drainage), decapsulation and nephrorrhaphy. [FERGUSON.]	Alb. and casts disappeared before she left hospital.	Well 2 years later.
54	Female. 32 years. No occupation.	2 years.	Pain and tenderness about L. kidney 2 yrs. ago, severe for 12 hrs. Bloody urine. Similar attacks later, sometimes chills and fever. <i>Recurrent interstit. nephritis</i> , shown by specimen.	No data.	Nephrotomy, Mar. 16, 1899. Kidney drained for 12 days. [FERGUSON.]	No data.	Marked gen. improv. 4 wks. after oper. No pain or tenderness over kidney.
55	Female. 43 years. Occ., dressmaker.	No data.	Frequent urination. Pain over L. kidney. Eyesight poor. Edema of feet, hands and eyelids.	Blood, alb. and casts. Scanty and high colored. 3 or 4 times normal amount. S. G., 1005. Alb. and casts. 2 p. c. urea.	Not described. [FERGUSON.]	3 months later urine much improved.	23 days later, improved as to all symptoms. Left hosp. "Nephritis almost absent."
56	Female. 34 years. Occ., none.	3 years.	Constant pain about R. kidney; occasionally in L. Shooting pains in back and thighs. Weak, dizzy, constipated, card. palpitat. <i>Interstit. nephritis.</i>	Quantity irreg. Total, 116 oz. in 24 hrs. S. G., 1005. Alb. trace. Casts gran. and hyal.	Decapsulation of R. kidney. [FERGUSON.]	3 wks. later 45 oz. in 24 hours. Freer from casts.	Free from pain 23d day after operat. One yr. later symptomatically cured.
57	Female. 45 years. Occ., housewife.	No data.	Five yrs. ago pain in R. loin. One year later a movable lump there. Last 6 mos. dull, aching pain over R. kidney. Constipated. Lost weight. <i>Movable kidney and nephritis.</i>	S. G., 1019. Acid. Alb., slight. Casts, hyal. and epithelial.	Kidney decaps., punctured, and fixed to abdom. wall. G.U. drain. [FERGUSON.]	No data.	1½ yrs. later reported perfectly well.
58	Male. 38 years. Occ., not stated.	No data.	Pain in L. side to testis. Oceans, renal colic. Gravel. <i>Pararenal nephritis, with cloudy swelling.</i> Degenerated epithel. with gran. and epithel. casts in tubes, from tissue specimen.	Scanty, high color, pus, blood, casts alb. layer of chlorides and bile. Bacteria.	Decapsulation, nephrotomy. Several small abscesses removed. Drain, through tube till disinfected from pus and germs. [FERGUSON.]	No data.	Immediate and remote were excellent.

Case Number.	Sex, Age, Occupation.	Duration of Disease.	Symptoms. Diagnosis (<i>in italics</i>).	Character of Urine Before Operation.	Nature of Operation. Operator.	Character of Urine After Operation.	Result and Remarks.
59	Female. 32 years. Occ., musician.	8 years.	Eight years ago fell from horse. Since then a lump on R. abdom., very movable. Pain in R. groin and appendic. region. Specimen excised showed slight change in interstit. tissue and parench. Sub-acute nephritis.	Amber color. S. G., 1012. Acid. No alb. Casts. epithel. and gran. Urates and mucus.	R. nephrorrhaphy, with decapsulation. Gauze drain. [FERGUSON.]	No data.	Uneventful recovery.
60	Female. 33 years. Occ., not stated.	3 months.	Abdom. pain, esp. renal fossa. Excised tissue specimen normal, exc. a few inflam. cells. <i>Displaced and fused kidney.</i>	S. G., 1014. Urea. 2.2 p. c. Alb., peptone, indican, pus, epithelia, cylindroids, phosphates, Fœtid.	R. kidney decapsulation and nephrorrhaphy. Drained. [FERGUSON.]	No data.	38 days after oper., improved. Taken home. <i>Remarks:</i> Patient in bad condition after operat. Operator fails to see what oper. had to do with recovery.
61	Female. 24 years. Occ., stenographer.	2 years.	Pain in R. lumbar region, worse on exertion. Swelling of R. ankle and eyes. Headache. Nervousness. Anorexia. Constipation. Worse for last 3 mos. <i>R. floating kidney.</i>	S. G., 1024. No alb. or casts. Squamous epithelia.	Kidney decaps., punctured and fixed to abdom. wall. Also cholecystotomy for gall stones. [FERGUSON.]	No data.	Left hosp. about 1 mo. after operat. Relieved.
62	Male. 37 years. Occ., not stated.	Not stated	Pain in both kidneys; worse in R. Gen. anasarca and ascites, albuminuria. Treated 3 yrs. ago with mercurial inunctions (specific history). Symptoms disapp. exc. albumin. R. kidney palpable and tender; L. tender but not palpable. Six weeks later: specimen excised showed <i>parenchym. nephritis, hyaline deg.</i>	32 oz. in 24 hrs. Alb., 50 p. c. Gran. casts. Squamous epithelia and bacteria.	R. kidney decapsulation and punctured. Gauze drain.	Incr. after oper. Alb. decr. On 18th day only 1 p. c.	Slight fistula after operation. Closing when patient left hosp., on 18th day.
				51 oz. in 24 hrs. Alb., 2.75 p. c. Casts, hyal. and gran.	L. kidney decapsulation. Gauze drain. [FERGUSON.]	In 2 wks. incr. to 74 oz. daily. Alb. decr. to 0.15 p. c. 7 mos. later, 85 oz. daily. Amber. acid. S. G., 1015. Alb., 0.05 p. c., red cells, leucocytes, renal cells, casts fatty, fine, and medium.	Seven mos. later reports gen. health good.
63	Female. 24 years. Occ., nurse.	No data.	Pain in back to R. iliac fossa and legs. Drowsiness. Edema of lids and upp. extrem. Loss of weight. Lassitude. T. 99° to 101° F. Soft tumor contin. with liver; another firm, movable, can be replaced in kidney fossa. Jaundice. Exam. of specimens kidney normal, slight cloudiness and congestion thought due to CHCl ₃ and manipulations.	Normal.	Gall bladder opened, drained. Kidney decaps., punctured, drained, sutured into place. [FERGUSON.]	Normal.	Good recovery. Free from symptoms.
64	Female. 12 years. Occ., school girl.	Not stated	Anasarca and ascites. Bed-ridden. <i>Chron. diffuse nephritis.</i>	21 oz. in 24 hrs. Yellow. S. G., 1018. Alb., 1-3 by bulk. Casts, hyal. and gran.	Not described. Two mos. between operats. on R. and L. kidneys. [Dr. C. H. FRAZIER, Philadelphia.]	Incr. to 105 oz. on fifth day. Since then 35 to 40 oz. Alb. and casts almost disapp'd.	Rapid disapp. of edema and ascites in 7 or 8 days. <i>Remarks:</i> Case was regarded as hopeless. Responded to no treatment in med wards.
65	Male. 55 years. Occ., lawyer.	Convulsions 2 months prev.	Headache. Low form of uræmia; at times out of his mind. Violent. Restless. Insomnia. Eyesight failed. <i>Chron. interstit. nephritis.</i>	30 oz. in 24 hrs. Pale. S. G., 1012. Alb., slight. Casts, gran., numerous.	B. capsules stripped 30 min. CHCl ₃ then ether. Took anæsth. well. [Dr. L. FREEMAN, Denver.]	No data.	Died from total suppress. 18 hrs. after operation.
66	Female. Young. No occupation.	No data.	Symptoms of mov. kidney only. Movable kidney. <i>Chronic parenchymat. nephritis (?)</i> .	S. G., 1023. No alb. Casts, gran., epithel., and hyal.	Operat. 4 years ago. Capsule stripped, kidney anchored. [FREEMAN.]	Still normal. Casts disapp'd within a few wks. of operat.	Complete recovery within a few wks.
67	Male. 50 years. Occ., horse trainer	At least 2 months.	Dyspnoea, esp. at night. No other complaint. <i>Chr. interstit. nephritis.</i>	52 oz. in 24 hrs. Pale; frothy. S. G., 1012. Alb., considerable. Urea, 3.646 grains per oz. Casts, pale and dark gran. phosphates abundant; deposit small.	Decapsulation. [Dr. F. H. GERRISH, Portland, Me.]	For some time no marked change; then alb. and casts. dimin. but never quite disapp'd. Increased later.	Died of exhaustion.

Case Number.	Sex, Age, Occupation.	Duration of Disease.	Symptoms. Diagnosis (in italics).	Character of Urine Before Operation.	Nature of Operation. Operator.	Character of Urine After Operation.	Result and Remarks.
68	Female. 42 years. Occ., housewife.	No data.	Dragging in back and loins. Acute colic in R. abdom. Headache, nausea, vomiting, lasting for a week; frequent micturition. R. kidney movable and tender. [Appendectomy 4 mos. before; omentum and intestines adherent.] <i>Diffuse nephritis.</i>	10 to 20 oz. daily. Urea, 0.5 to 1 p. c. S. G., 1000 to 1015. Alb., marked. Casts, hyal. and gran. Renal epithelia.	Decapsulation. Fixation of R. kidney. [Dr. R. H. GIBBONS, Sacramento.]	No data.	Complete anuria 6 oz. in 5 days preceding death. <i>Remarks:</i> Operator thinks decapsul. of other kidney would have given better chance.
69	Female. 43 years. Occ., not stated.	No data.	Loss of weight. Nervousness. Headache. Nausea, vomiting. Dizziness. Impaired sight. Somnolence. (Edema of extremities. R. kidney freely movable, and below anter. spine. <i>Chron. interstit. nephritis.</i>	S. G., 1011. Alb., marked. Casts, hyal. and gran. Bladder and renal epithelia. Urea, 1 p. c.	R. nephropexy. [GIBBONS.]	Normal 3 mos. later. Continues so.	Symptoms all vanished. Entirely well after operat.
70	Female. 52 years. No occupation.	No data.	Headaches; dizziness; impaired vision; dull and sleepy; nausea, vomiting; edema of face and extrem.; pain in back and loins, radiating downward, cramp-like and colicky pains; nervous; both kidneys movable. <i>Chron. interstit. nephritis.</i>	S. G., 1012. Urea, from 0.5 to 1.5 p. c. Casts, hyal., and epithel. Alb., trace.	Almost complete decapsul. both kidneys, only enough left to attach to abd. wall. Cysts in kidneys incised. [GIBBONS.]	Exam. 3 times at 1 yr. later gen. cond. improved; weight incr. Edema never returned. Still has nervous sympt. but no headaches. Casts diminished.	
71	Female. 33 years. Occ., seamstress.	No data.	Headaches, nausea, vomiting; impaired vision; uræmic intoxic., but no coma. Feels as if she has been asleep without being sure, unless she times herself. Edema bordering on gen. anasarca. R. movable kidney. <i>Interstit. nephritis.</i>	S. G., 1012. Urea, 1.5 p. c. Alb., trace. Casts, hyal., gran., and blood.	Decapsul. and fixat. of R. kidney. Complete decapsul. of L. and restoration to its fatty capsule. [GIBBONS.]	No data.	Within 6 weeks all sympt. and signs disapp'd. 8 mos. later feels well.
72	Male. 41 years. Occ., not stated.	No data.	Complete retention 24 hrs. Catheter withdrew 4 oz. only. P. 150, R. 35. In extremis. Gen. anasarca with ascites. Only semi-recumbent posture possible. 2½ gals. fluid aspirated day before operat. <i>Chron. parenchym. nephritis.</i> Both upper poles of kidneys were found filled with hæmorrhagic infarction.	4 oz. Yellow. S. G., 1020. Urea, 1 p. c. Alb., 0.7 p. c. Casts, blood, gran., hyal., waxy. Pus, blood and bacteria.	Spinal anæsthes. Wounds left open. Capsule peeled and stitched to edge of incision. Gauze packing. Secretion strong and abundant. Wounds closed on 13th day. Much drainage. [Dr. G. E. GOODFELLOW, San Francisco.]	Quantity rose next day to 27½ oz. Incr. daily as follows: 38, 36, 41, 45, 45, 51, 32, 31, 21, 24½, 32½, 33, and 30 oz. Urea incr.; casts and alb. dimin.	Much improved. Left hosp. in 3d week. Edema gone except little in one thigh. <i>Remarks:</i> Operator considers operation perfectly justifiable when patient is in extremis.
73	Female. 36 years. Occ., housekeeper.	1 year or more.	Thumping heart; marked hypertrophy. Extreme dyspnoea. Heart pulsat. marked on chest. No rest without morph. Uræmic coma at times. <i>Chron. diffuse nephritis.</i> Operator had fixed R. kidney 2 yrs. previously for prolapse (1 year). Thinks nephritis prior to this and aggravated by it, as above sympt. followed in a year.	2 to 8 oz. daily a wk. before operat. Amber color. S. G., variable. Alb., profuse, variable. Casts, all kinds.	Decapsul. of R. kidney only. Mar. 6, 1902. [Dr. S. C. GOODEN, Portland, Me.]	Secretion rapidly incr. to normal in 2 or 3 wks. Alb., markedly less. Casts, absent.	Severe symptoms relieved within 2 dys. and did not return for many mos. In a wk. dyspnoea and pain absent. Sleep normal. Left hosp. in 4 wks., returned to household duties. Died from general dropsy, December.
74	Male. 79 years. Occ., baker.	No data.	Frequent urination. Dizziness. Headaches. Infra-orbital edema. <i>Interstit. nephritis.</i>	95 oz. in 24 hrs. S. G., 1016. Urea, 1.27 p. c. Alb., 0.125 gms. per litre. Casts, hyal. and gran. Renal and bladder epithelia.	Double decapsul. Int. capsule stripped off with the fatty caps. and had to be dissected away. [Dr. R. GUITERAS, New York.]	S. G., 1015. Urea, 2.1 p. c. Alb., trace. Casts, few hyal. and gran. No renal epithelia.	Improved and left hosp. at end of 2 mos. <i>Remarks:</i> Begun to fail 3 mos. after leaving hosp. Died 1 year later.
75	Female. 19 years. No occupation.	2 years.	Headaches; dizziness; spots before eyes; vomiting. Had had uræmic convuls. post-partum. <i>Interstit. nephritis.</i>	720 c. c. in 24 hrs.; yellow. S. G., 1023. Urea, 2 p. c. Much alb. Casts, gran. and hyal. Bladder epithelia; amorphous urates; no sugar, pus or blood. Solids, 53.59.	Double decapsulation. [GUITERAS.]	Quantity incr. amber, cloudy; slightly acid. S. G., 1018. Urea, 2 p. c. Alb., trace; phosph.; few hyal. and gran. casts; few epithelial cells from vagina, urethra and bladder; few urates. No blood or amorphous urates.	Gen. condition improved. Edema stronger. No edema. Occasional headaches. Urine improved.

Case Number	Sex, Age, Occu.	Duration of Disease.	Symptoms. Diagnosis (<i>in italics</i>).	Character of Urine Before Operation.	Nature of Operation. Operator.	Character of Urine After Operation.	Result and Remarks
66	Female. 34 years. Occ., housewife.	2 years.	R. lumbar and abdom. pain; malaise; incomplete urination; edema of feet. Catheterism of ureters and analysis of urine from each kidney showed <i>chron. interstit. nephritis</i> affecting both organs.	44 oz. in 24 hrs.; S. G., 1012. Urea, 1 p. c. Alb., 1.15 p. c. No casts. Epithel. from renal pelvis and convol. and straight tubules. Congealed tissue shreds; red blood corp.; cryst. uric acid.	R. kidney partially decapsul. and anchored (GUITERAS.)	No renal epithelia, no blood or casts. Urea, 2 mos. after operat. Urea remained low, never above 1.8 p. c.	2 mos. after operat. still felt disagreeable symptoms in back, though less; 8 mos., still acute pain at times in R. flank; 1 year after operat., feels well and is much improved. <i>Remarks:</i> Although most of signs have disappeared from urine, urea still remains low. Urine from L. kidney benefited by operat. on R.
67	Male. 39 years. Occ., tailor.	1 year.	Pain and dragging, R. side and suprapubic; frequent urination; nervous, unfit for work. <i>Movable R. kidney. Prostatism.</i>	Pale yellow. S. G., 1015. Urea, 1.5 p. c. Alb., slight. Casts, hyal., gran. and epithel. Clear slight sediment, epithel. from bladder, renal pelvis and kidney; few pus and blood cells.	Decapsulat. and fixat. of R. kidney. (GUITERAS.)	S. G., 1023; acid, clear, pale yellow. Urea, 2 p. c. No alb. No casts. Bladder epithel., no renal; uric acid cryst.; shreds; plugs from prostate. Contains also spermatozooids and pus cells.	General cond. about same; also R. kidney sympt. Complaints of bladder. <i>Remarks:</i> Renal funct. and urine impr. Frequent urinat. and suprapub. pain, probably due to prostate and adhesions from a suprapub. cystotomy.
68	Female. 55 years. Occ., housewife.	Several months.	Pain in L. abdom.; headaches, indigestion. <i>Movable L. kidney.</i>	Color normal; acid. S. G., 1020. Urea, 1.3 p. c. No alb. Casts, hyal., epithel., and gran.; bladder epithelia; calc. oxalat. crystals.	Decapsulat. and fix. of L. kidney. April 12, 1902. (GUITERAS.)	S. G., 1025; acid. No alb. Urea, 2.8 p. c. Casts, hyal.; mucus; no pus, blood; bladder epithel.; calc. oxalat. and amorphous cryst.	Subjective sympt. relieved.
69	Female. 30 years. Occ., housewife.	No data.	Headache; weakness; dizziness; malaise; anorexia; constipation. <i>Movable R. kidney.</i>	S. G., 1025. Urea, 1.3 p. c. Casts, hyal. and gran.; calc. oxalat. cryst. Ureteral catheterism showed that pathol. elements came from R. kidney.	Decapsulat. and fix. of R. kidney. July 19, 1902. (GUITERAS.)	Normal.	Left hosp. 5 weeks later, relieved of all sympt. No relapse reported since.
80	Female. 39 years. Occ., housewife.	No data.	Pallor; marked edema; ascites; no uramic sympt. <i>Chron. interstit. nephritis.</i>	26 to 40 oz. in 24 hrs. S. G., 1010 to 1014. Urea, 1 p. c. Alb., 0.7 p. c. Casts, hyal. and gran.	Double decapsul. (Dr. CARL HAMANN, Cleveland, O.)	Dimin. for a wk., then about same as before operat. Urea and casts unchanged.	Died in 4 mos. Ascites less, and tapping not so frequent for a few weeks.
81	Male. 18 years. Occ., laborer.	At least 4 months.	Pallor; puffiness of face; edema of legs. <i>Diffuse nephritis.</i>	30 oz. in 24 hrs. S. G., 1015. Urea, not known. Alb., 20 p. c. vol. Casts, hyal., epithel., and gran.	Double decapsul. (HAMANN.)	2 wks. after operat., S. G., 1018. Alb., 0.5 p. c. Casts, same but fewer.	Recovery. 4 mos. after operat. gen. condit. much improved; edema less; feels better.
82	Female. 18 years. Occ., clerk.	Several months.	Pallor; edema of legs. <i>Chron. parenchym. nephritis.</i>	1200 c. c. in 24 hrs. S. G., 1020. Urea, 10.8 grms. in 24 hrs. Much alb. Casts, gran. and fatty.	Double decapsul. (HAMANN.)	2 wks. after operat., S. G., 1024; 700 c. c. in 24 hrs.; fatty and gran. casts.	Recovery. 5 mos. later no edema; feels quite well and thinks she is cured. Urine not examined.
83	Male. 40 years. Occ., gambler.	No data.	Pallor; edema of legs. <i>Chron. diffuse nephritis.</i>	Much alb. Casts, gran. and gran. Urea, not known.	Double decapsul. (HAMANN.)	Amount incr. otherwise same.	Recovery. 10 mos. later feels better. Edema same.
84	Sex, not stated. Age, not stated. Occ., not stated.	No data.	No record of symptoms. <i>Chron. Bright's disease.</i> variety not stated.	No data.	Not described, probably decapsulation. (Dr. A. E. JONAS, Omaha.)	No data.	Att. phys. reported full recovery.
85	Sex, not stated. Age, not stated. Occ., not stated.	No data.	No record of symptoms. <i>Chron. Bright's disease.</i> variety not stated.	No data.	Not described, probably decapsulation. (JONAS.)	No data.	Impr. about 3 mos. Then all symptoms became worse. Patient died 1 mo. later in uramic convuls.
86	Sex, not stated. Age, not stated. Occ., not stated.	No data.	No record of symptoms. <i>Chron. Bright's disease.</i> variety not stated.	No data.	Decapsulation. (Dr. F. KAMMERER, New York.)	No data.	Died 8 wks. after operat. No improvement at all.
87	Sex, not stated. Age, not stated. Occ., not stated.	No data.	No record of symptoms. <i>Chron. Bright's disease.</i> variety not stated.	No data.	Decapsulation. (KAMMERER.)	No data.	Death from collapse on day following operat., although operat. was quickly done and not difficult.

Case Number.	Sex, Age, Occupation.	Duration of Disease.	Symptoms. Diagnosis (<i>in italics</i>).	Character of "Urine Before Operation.	Nature of Operation. Operator.	Character of Urine After Operation.	Result and Remarks.
88	Female. 23 years. Occ., trained nurse.	Nearly 1 year.	Those characterizing <i>chr. interstit. nephritis</i> . <i>Idema</i> , also pleurisy.	600 c. c. ineb. to 1,000 c. c. daily; color normal. S. G., 1015. Urea, 1.7 p. c. Alb., 1.2 p. c. Casts, hyal., gran., and waxy. Epithelia, blood, pus. Segregation showed same characters from each kidney.	Capsulotomy on R. kidney, Sept. 29, 1902. [Dr. R. A. McGeles.]	1,500 c. c. daily. S. G., 1010. Urea, 2.4 p. c. Alb., 1.5 p. c. Casts, gran., and hyal. Epithelia; triple phosph.	Marked improv. 40 days after operat. Gen. cond. improved, phys. and mental, as well as clinical.
89	Male. 16 years. Occ., lumber dealer.	Unknown.	Dropsy; albuminuria; gen. sympt. of uræmia. <i>Chron. diffuse nephritis</i> .	500 to 800 c. c. in 24 hrs.; yellow. S. G., 1010. Urea, 1.12 p. c. Alb., 20 p. c. by centrifuge. Casts, hyal., gran., fatty, and epithelial.	Double decapsul. [Dr. G. MacGowan, Los Angeles.]	No data.	Died from gen. purpuric extravasation coming on during operation.
90	Male. 50 years. Occ., capitalist and lumberman.	About 8 years.	Dyspnoea; cardiac hypertrophy; tachycardia; palpitation; slight oedema of extremities; impaired vision; increasing urinary flow; headaches, not uræmic. <i>Chron. interstit. nephritis</i> .	Abundant; pale; frothy. S. G., 1004. Urea, not estim. Casts, gran. and epithelial.	Decapsulation. Uncomplicated. Rallied well. Found small gran. kidneys, very adherent. [Dr. A. S. McKenzie, Portland, Ore.]	No data.	Died suddenly at end of 24 hours.
91	Female. 58 years. Occ., housewife.	3 years.	Increased quantity of urine; oedema, gen. anasarca; headache; loss of sight; nausea and vomiting; dyspnoea. <i>Interstit. nephritis</i> .	17 to 32 oz. in 24 hrs.; yellow. S. G., 1008. Urea, average 8 grammes in 24 hrs. Alb., 5 grains per litre. Casts, hyal., gran., waxy.	Decapsulation. (HCLz. Time, 17 min. [Dr. F. E. Markey, New York.]	30 oz. daily. Immediate improv. in amount of urea and alb. Urea, 13.5 gms. Alb., 2 3/4 grns. per litre.	Immediate improv., followed by relapse to almost identical con. prior to operat. Then slight improvem't.
92	Female. 34 years. Occ., housewife.	8 years.	Headache; gastric disturb.; large R. kidney enlarged. At operat. R. kidney found enlarged and nodular, with many old scars and a new infarction.	No data.	Decapsulat. and fixat. of R. kidney, Mar. 21, 1902. Primary union of wound. [Dr. R. Morris, New York.]	Alb. disapp. rapidly up to report about 8 wks. after oper.	Improved.
93	Male. 31 years. Occ., teamster.	3 or 4 mos.	Pain, oedema, frequent urination, headache. <i>Interstit. nephritis</i> .	40 to 60 oz. in 24 hrs.; pale. S. G., 1013. Urea, 14.52 grammes. Alb., 0.25 p. c. Casts numerous, hyal. and finely gran., small diameter, with renal cells adherent. Considerable blood free and on casts; numerous renal cells; onas. fatty renal cells.	Decapsulation. [Dr. J. C. Monro, Boston.]	Pale; acid; alb. 1-10 p. c.; oc. cas. hyal. and finely gran. casts, renal cells adherent; consid. renal epithelium, some fatty, few red blood corpuscles, urea incr. to 21.3 gms.	Improved. Said he never felt better. Gained 20 lbs. Works hard and life's heavy weights. Later went on 1 wks. spree, oedema returned, stopped spree. Urine showed 1 p. c. alb. and some blood. Now improving in color and he feels well.
94	Male. 51 years. Occ., sailor.	About 2 years.	Severe occip. headaches; puffiness of lower eyelids; pains in legs; increased amount of urine. <i>Chron. interstit. nephritis</i> .	1,800 to 2,000 c. c. daily; pale. S. G., 1014. Urea, not estim. Alb., 3 3/4 grns. per litre. Casts, hyal., fine and coarse gran., and epithel. Few red and white corpuscles.	Decapsul. of one kidney, Apr. 15, 1903. Kidney large, capsule easily detached. [Dr. J. A. Nylander, Baltimore.]	2,000 to 2,200 c. c. daily. 30 grains alb. per litre.	Severe postocclp. headaches for 3 or 4 days after oper.; these ceased on return. Not improved. Condit. as before operation.
95	Male. 53 years. Occ., sailor.	10 mos. (in hosp.).	Oedema of legs, feet and ankles; shortness of breath; incr. weakness and pallor; incr. in daily amount of urine; incr. cardiac dullness; area; beat displaced; booming 2nd sound at apex. <i>Chr. interstit. nephritis</i> .	2,200 to 2,400 c. c. daily; pale and clear. S. G., 1010. Alb., 21 grns. per litre. Gran. casts; few leucocytes.	Decapsul. of one kidney, Mar. 19, 1903. Kidney contracted to 1/2 normal size. Urinary cysts; caps. closely adherent. [Nylander.]	1,500 to 1,600 c. c. daily. 67.5 grains of alb. per litre.	No improv. as yet. Gen. cond. slightly worse than when operated on.

Case Number.	Sex, Age, Occu- pation.	Duration of Disease.	Symptoms. Diagnosis (<i>in Italics</i>).	Character of Urine Before Operation.	Nature of Oper- ation. Operator.	Character of Urine After Operation.	Result and Remarks
96	Male. 29 years. Occ., clerk.	2 years.	Stomach trouble; frontal headache; oedema for 18 mos. <i>Diffuse nephritis</i> .	12 oz. in 24 hrs. straw color. S. G., 1015. L. kidney. Urea, 1 p. c. Alb., 0.7 p. c. Few tube casts. All kinds epithel. cells blood. R. kidney: Urea, 1.2 p. c. Alb., 0.6 p. c. Tube casts. gran. and hyal. Epithel. cells.	Decapsul. of R. kidney, July 7, 1902; of L. kidney 4 mos. later. [Dr. A. J. OCHSNER, Chicago.]	After 1st operat. amt. incr. to 60 oz. daily. After 2d, 60 oz. daily. Straw color. S. G., 1010. Alb., 4 p. c. Casts. hyal. and gran.	About same for 6 wks. after 1st operat., then improved, oedema disapp'd; gained strength; felt better than for 2 yrs. Did not do well after 2nd operat.; died on 8th day (uræmia).
97	Male. 22 years. Occ., clerk.	4 months.	Pain in back; marked oedema, rapid anaemia. <i>Diffuse nephritis</i> .	38 oz. in 24 hrs. straw color. S. G., 1018. Alb., 6 p. c. Casts. hyal. and gran. Epithel. cells.	Decapsul. L. kidney, April 28, 1902; of R. 24 days later. [OCHSNER.]	No improvement.	No change after 1st operat.; after 2nd grew worse and died 5 wks. later.
98	Female. 41 years. Occ., housewife.	3 years.	Headaches; severe uræmic convuls. for 2 years; oedema for 2 years. <i>Diffuse nephritis</i> .	13 oz. in 24 hrs. straw color. S. G., 1012. Much alb. Gran. casts.	Decapsul. of L. kidney, Sept. 1, 1902. [OCHSNER.]	Incr. to 70 oz. daily. Total alb. about same.	Patient gradually impr. Oedema disapp'd. All sympt. seemed to impr. for 6 mos., then grew worse. Died of uræmia 6 mos. after operation.
99	Female. Young. Occ., not given.	No data.	Suffering from very serious disorganization of one kidney, threatening life.	No data.	Decortivating, and holding kidney up with tapes. [Dr. R. PARK, Buffalo.]	No data.	Park thinks life was saved by operat., as she is now working hard. He says: "I have not lost any cases, but find it difficult to make comparisons, since now it is my practice to decorticate every diseased kidney upon which I operate. This, by the way, is a measure which I would like to be considered as advocating and warmly urging."
100	No data.	No data.	No data.	No data.	Decortication. [PARK.]	No data.	All recovered from operat. Operator was unable to furnish subsequent histories.
101 102 103 104	No data.	No data.	No data.	No data.	No data. [PARK.]	No data.	No data.
105	Male. 40 years. Occ., laborer.	Since pneumonia, Feb., '03.	First noticed puffiness of eyes; later swelling of lower extrem. At operat. gen. oedema; scrotum and abdom. much enlarged. Headache; gastric disturbance; dry skin; <i>Interstitial nephritis, L. kidney</i> . [Single kidney.]	Clear. S. G., 1009. Alb.	Decapsul., Mar. 24, 1903. No kidney found on R. side. L. about twice normal size. [Dr. J. W. PERKINS, Kansas City, Mo.]	40 oz. daily. S. G., 1016. Some alb.	Much impr. Oedema disapp'd almost entirely while in bed; slight oedema in lower extrem. since getting up.
106	Male. 10 years. Occ., none.	6 months.	Gen. anasarca and ascites, 6 mos.; paracentesis 7 times; on admission oedema of face and extrem.; abdom. greatly distended; face puffy, eyelids greatly swollen, skin stretched and transparent. Dyspnoea from ascites. Heart regular but rapid, 128 a min.; anorexia; tongue moist, whitish fur. Constipation. Four days later, T. 103° F., P. 132, R. 48. Tapped, relief. Liver dulness 1½ in. below ribs. Eight days later, tapped; troublesome cough; pulmonary oedema. No cardiac hypertr. evident.	10 p. to 25 oz. in 24 hrs.; acid. S. G., 1025. Alb., 1.6 p. c. Casts. hyal., gran., fatty, and epithelial.	Nov. 21, 1901, R. kidney cut down on. Enlarged. Incision 2 in. long in capsule; lumbar wound drained for a fortnight. A month later, L. kidney decapsul. [Dr. A. PRIMROSE, Toronto.]	Amount incr. in 7 days from 14 to 40 oz. after 1st operat.; alb. decr. to 0.8 p. c. After 2nd oper. amount rose to 44 oz. in 24 hrs. Alb. decr. to 0.03 p. c. Casts very largely diminished in number.	Splitting caps. of R. kidney followed by marked impr. in general cond., but transient, consequently 2nd oper. was done. This was followed by critical illness for some days. Pneumonia at end of 1st week. He gradually recovered, renal sympt. abated. gen. oedema and ascites disapp'd.
107	Female. 28 years. Occ., not given.	8 months.	Enormous oedema and ascites; dyspnoea; pulse almost imperceptible. In extremis. Day before operat. 5 quarts fluid tapped. <i>Chronic parenchymatous nephritis</i> .	24 to 30 oz. in 24 hrs. S. G., 1020. Much alb. Many gran. casts, renal epithelia, and leucocytes.	Patient was so low that after a few whiffs of ether she went into collapse. Doubled decapsul. in 21 min. without further anaesthesia. Small gauze drains down to kidneys. [Dr. A. E. ROCKEY, Portland, Ore.]	Amount incr. slightly, 25 to 35 oz. daily. General character unchanged.	Profuse drainage from incisions relieving oedema. Became a mere skeleton. Progressive weakness; death on 9th day.

Case Number.	Sex, Age, Occupation.	Duration of Disease.	Symptoms. Diagnosis (in italics).	Character of Urine Before Operation.	Nature of Operation. Operator.	Character of Urine After Operation.	Result and Remarks.
108	Female. 32 years. Occ., not given.	Several years.	Uræmic sympt. developed day before operat. <i>Chron. interstit. nephritis.</i>	40 oz. in 24 hrs.; pale. Gran. and hyal casts. Little pus. Am. moderate. Day before operat. kidneys complete anuria.	Operat. only as last resort in hope of stimul. kidney activity. L. kidney quickly decomposed R. could not be delivered; lower portion of caps. split and turned back. Enlarged part above punctured with aspirating needle and found solid. Operat. 25 min. [ROCKEY.]	None secreted.	At P. M. chron. interst. nephritis and large secretion of R. & B. Case was entirely unsuited to operat. as secreting power of kidneys had been previously destroyed.
109	Male. 65 years. Occ., lighthouse keeper.	No data.	Dropsical 6 mos.; lower extrem. and abdom. greatly oedematous. Resp. impeded. <i>Chron. interstit. nephritis.</i>	45 to 60 oz. daily. Urea, 1.5 p. c. Alb., 3 to 4 p. c. Casts, gran. and epithel.	Both kidneys decapsulated. [ROCKEY.]	Alb., 0.75 to 1 p. c. 6 mos. after operat.: 48 oz. in 24 hrs. S. G., 1020. Alb., trace. No casts.	Improvement rapid. Oedema entirely disapp'd in 3 wks., incisions healed, and he returned to work. Oedema ret. a few wks. later, but pres. condition much impr. 6 mos. after operat., improved, not cured.
110	Male. 30 years. Occ., bartender.	No data.	For 6 mos. dyspnoea; malaise; oedema of hands, face, lower extremities and abdom.	50 to 60 oz. daily; light Alb. present.	Decapsul. When L. kidney was returned to place a great gush of venous blood ensued; controlled by pressure on renal pedicle. Impossible to check hæmorrh. by packing, so kidney was removed, as patient was almost exsanguinated. [ROCKEY.]	Unchanged. Alb. and casts.	Recovery rapid. Oedema disapp. Resumed position and working 10 hours daily. Slight ret. of oedema. Considers himself well, but is only improv.
111	Male. 46 years. Occ., laborer.	2 or 3 yrs.	Very stupid; muse, twitches; threatened coma; alcoholism evident; uræmic sympt.; general oedema. <i>Chron. interstit. nephritis.</i>	40 to 60 oz. in 24 hrs.; pale. S. G., 1010. Urea, 1 p. c. Alb., trace Casts, hyal. and gran.	Decapsulat. (?) Dr. J. L. SAMMERS, Omaha.]	Gradual improvement to 30 to 40 oz. daily. Urea, normal. Only an occas. hyal. cast. No alb. S. G., 1015-1020.	Recovery complicated by del. trem., necessitating restraint. Remarks: Operator thought this a very unfavorable case.
112	Female. 26 years. Occ., box factory.	8 months.	Headache; disturbed vision; malaise; nausea and vomiting; epigastric pain; dyspnoea; frequent urination. Uræmic sympt. Slight oedema. At operat. both kidneys much contracted, granular; cortex thin; caps. adherent. Specimen showed <i>chron. glomerular nephritis.</i>	40 to 70 oz. in 24 hrs.; pale. S. G., 1010. Urea, 0.5 p. c. Alb., 18 to 24 Casts, hyal. and gran. (?) Fat adherent. Segregation showed both kidneys to be secreting some kind of urine.	Decapsulation. Dr. PAUL THORNTON, Boston.]	Amount decr. in 24 hrs. Less alb. (trace). Casts, hyal. and gran. Blood adherent.	Death in 48 hrs. after operat. Sympt. of uræmia.
113	Male. 23 years. Occ., ironworker.	About 1½ years.	Headache; gastric and visual disturbance; oedema of extrem.; ascites. Faint systol. murm.; slight tension of arteries; dulness to flatness over base of each lung. <i>Chron. parenchym. nephritis.</i>	40 to 70 oz. in 24 hrs. S. G., 1012. Alb., 10.5 to 20 p. c. Casts, gran. and hyal. Squamous and round epithel.; blood; pus. Urea, 1 to 4 p. c.	Decaps. of both kidneys, which were enlarged. [Dr. R. F. WEIR, New York.]	No data.	Convalescence rapid and uneventful. Condition about the same.
114	Female. 37 years. Occ., cigar maker	2 years.	Dyspnoea and headache; oedema of ankles and feet; cardiac palpit.	8 oz. in 24 hrs.; pale. S. G., 1005. Urea, 16 grns. in 24 hrs. Alb., present. Casts, hyal. and gran.	Variety of oper. [Dr. T. P. WHALEY, Charleston]	Alb. persisted for 2 mos. Casts diminished in 4 mos. Urine was clear.	General cond. much improved.
115	Male. 26 years. Occ., farmer.	18 months	Headache; pain in back; vertigo; impaired vision; oedema of ankles.	34 oz. in 24 hrs.; color light and straw. S. G., 1010. Urea, 200 grns. in 24 hrs. Alb., ? Casts, hyal. and gran.	Variety of oper. [WHALEY.]	Alb. disappeared. Casts found only occasional.	Doing splendidly. marked improvement.

Case Number	Sex, Age, Occupation.	Duration of Disease.	Symptoms. Diagnosis (<i>in italics</i>).	Character of Urine Before Operation.	Nature of Operation. Operator.	Character of Urine After Operation.	Result and Remarks.
116	Male, 42 years. Occ., baker.	No data.	Headache; pain in back; nervousness; some edema.	18 oz. in 24 hrs.; color dark red. S. G., 1.025. Urea, 90 grns. in 24 hrs. Alb. present. Casts, hyal. and gran.	Variety of oper. not mentioned. [WHALEY.]	Improved. Still shows alb., but casts rare.	Cond. much impr. Is working, and says he feels as well as ever. Headaches few.
117	Male, 50 years. Occ., longshoreman.	3 years.	Headaches severe and prolonged; edema of feet and lower eyelids; disturbed vision.	34 oz. in 24 hrs.; color clear straw. S. G., 1.014. Urea, 110 grns. in 24 hrs. Alb., slight. Casts, hyal. and gran., abundant.	Both kidneys operat. not described. Spinal anæsth. [WHALEY.]	S. G., 1.018. Casts dimin.; alb. persists.	Doing well; impr. edema of lung slight.
118	Male, 52 years. Occ., butler.	No data.	Headaches; dim. vision; marked dyspnoea; gen. anasarca.	6 oz. in 24 hrs.; color dark red. Urea, 52 grns. in 24 hrs. Alb., abundant. Casts, gran. and hyal.	Operat. not described. Spinal anæsth. [WHALEY.]	No data.	Died on 3rd day from edema of lungs.
119	Male, 40 years. Occ., laborer.	Severe symptoms 1 year.	Marked edema, face, legs, joints; ascites; trapped 8 times before operat.; bedridden 6 mos.; anæmia; anorexia. <i>Diagnosis nephritis.</i>	16 to 20 oz. in 24 hrs.; amber, cloudy. S. G., 1.010. Urea, 60 grs. in 24 hrs. Alb., urine boiled solid. Casts, hyal. and gran.	Decapsulation. [Dr. H. J. WHITE, Dr. E. A. CROE, Cincinnati.]	22 oz. in 1st 24 hrs.; then 29 oz., 31 oz., 51 oz., and 33 oz., then ranged from 26 to 30 oz. daily for a week, then diminished, even to 14 oz. Improved as to urea, alb., and casts.	Much impr.; ascites absent; edema less; in good spirits. Died 2 wks. after operat. from myocardial thrombosis probably; no P. M. <i>Remarks:</i> Kidneys at operat. found to be large, white. Operator does not consider this variety likely to be greatly benefited by operation.
120	Male, 21 years. Occ., machinist.	1½ years.	Loss of weight and strength; anæmic; gen. edema and ascites; tachycardia; anorexia.	30 to 50 oz. daily; light yellow; turbid. S. G., 1.014 to 1.014. Urea, 1022. Alb., 15 to 30 p. c. by centrifuge. Casts, many large and small, occasionally hyal.	Decapsulat. both kidneys. Mar. 11, 1903; kidneys unusually large, pale, diminished blood supply. No bleeding followed incision made after removal of capsule. [Dr. W. N. WISHARD, Indianapolis.]	5 weeks later much impr.; no casts for 2 wks. 1 p. c. alb.	Much improved. Edema entirely disapp'd. Patient's color impr.; muc. memb., red. Good appetite. Feels better and stronger. (Report 6 wks. after operat.)

Dr. Bingham has also operated on several other cases of nephritis, but did not include their histories, so the results were not known.

Dr. Blake has operated on two other cases which are not tabulated, as their histories and the results are not reported.

Dr. Edebohis includes nineteen other cases in his reports in his article, published in the *Medical Record*, March 28, 1903, but sufficient data of these cases was not given to permit tabulation.

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Therapeutical Notes.

Fissures of the Breast.—Lepage, in *Journal médical de Bruxelles*, for July 16, 1903, states that he has found solutions of boric acid on compresses excellent, but he offers this formula:

℞ Menthol50 centigrammes (7½ grains);
 Cocaine hydrochloride.....50 centigrammes (7½ grains);
 Powdered salol.....2 grammes (30 grains);
 Lanoline { of each...25 grammes (0¼ drachms).
 Petrolatum {

M. Make an ointment.

For Insomnia.—The *Gazzetta degli ospedali e delle cliniche* for October 15th says that two principles must govern the treatment of insomnia: 1. Deal with the cause (infection toxines of extraneous origin); 2. do not abuse hypnotics.

Physical therapy by tepid baths or douches, static electrical baths, etc., when possible of application, should be preferred to internal remedies.

Another measure is directed to the intestinal self intoxication so frequent in cases of neurasthenic insomnia. The patient should take every morning fasting a dessertspoonful of the following salt in a tumbler of water:

℞ Sodium and potassium tartrate.....100 parts;
 Sodium bicarbonate.....15 parts.

An enema of hot water at 11 a. m., retained as long as possible may be of service.

If constipation is persistent recourse must be had to the use of one of the following pills before meals:

℞ Cape aloes.....0.10 gramme (1½ grains);
 Extract of cinchona.....0.15 gramme (3 grains);
 Powdered cannella.....0.02 gramme (⅓ grain);
 Syrup of wormwood.....0.03 gramme (½ grain).

[The original calls for 1.05 gramme (16 grains) of extract of cinchona, but this appears to be surely an error, if for no other reason than the large pill it would entail.]

For one pill.

The diet should be regulated, and a proper use of laxatives practised.

It must not be forgotten that cold water is badly tolerated by neurasthenics, especially in the form of douches, and exaggerates insomnia in them.

Hypnotics should only be used after the causes that originated the insomnia have been combated, and when all other measures have proved unavailing. The bromides are unsuited to the debilitated on account of their depressing action. They are of service, however, when combined with Indian hemp:

℞ Potassium bromide.....10 grammes (150 grains);
 Extract of cannabis indica.....0.15 gramme (2¼ grains);
 Syrup of bitter orange peel.....100 grammes (3⅓ ounces).

M. A tablespoonful at bedtime.

Chloral often disturbs the stomach, but if the digestion is in good condition, it may be added to the foregoing in the proportion of 5 per cent.

A Lavement of Creosote.—*Revue française de médecine et de chirurgie*, for September 28, 1903, says that the following formula dissolves creosote and neutralizes its causticity:

℞ Creosote { of each...2 grammes (¼ drachm);
 Almond soap {
 Yolk of egg.....one;
 Water500 grammes (16⅞ ounces).

M. Triturate the creosote in the soap; add hot water. When cool, make an emulsion with the egg, and add the remaining water.

For "La Grippe."—*Revue française de médecine et de chirurgie*, for September 28, 1903, advises that this liniment be thoroughly rubbed into the chest and back, the patient then to be closely covered, when a cure will be rapid:

℞ Salicylic acid.....4 grammes (1 drachm);
 Methyl salicylate.....10 grammes (2½ drachms);
 Oil of eucalyptus { of each.....5 grammes (75 minims);
 Oil of rose {
 Volatile oil of sage.....3 grammes (45 minims);
 Oil of camphor.....30 grammes (1 ounce);
 Tincture of juniper.....1½ grammes (18 minims).

M. For a liniment.

For Amenorrhœa.—*Revue française de médecine et de chirurgie*, for October 12, 1903, quotes Lutaud's formula:

℞ Powdered damiana.....25 centigrammes (3¾ grains);

Powdered savin { of each.....10 centigrammes
 Powdered rue { (1½ grains);
 Powdered saffron {
 Powdered ginger.....5 centigrammes (¾ grain).

M. For one capsule; one, morning and evening.

Atrophic Cirrhosis of the Liver.—In a review of the treatment of atrophic cirrhosis of the liver, the *Rivista critica di clinica medica* for October 3rd says that calomel in minute doses, say one centigramme, (⅓ grain), daily in four pills, is the best sedative of liver activity, while, on the other hand, it is a powerful excitant if given in doses ranging from half a gramme to a gramme (7½ to 15 grains). The treatment should be continued for eight days when arsenic should be substituted for it:

℞ Sodium arsenate.....0.05 gramme (¾ grain);
 Distilled water.....300 grammes (10 ounces).

M. A tablespoonful morning and evening.

Or sodium cacodylate, 5 per cent. solution, may be given, ten drops before meals. Continue for four days and suspend for four days.

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NEW YORK, SATURDAY, NOVEMBER 14, 1903.

THE CASE OF THE GERMAN EMPEROR.

The news that a growth has been detected in Emperor William's larynx is well calculated to command universal attention. It is described as a polypus, and the announcement of its successful removal is supplemented by Professor Orth's assurance, founded on ample microscopical examination, of its benign nature. There is no reason to doubt this assurance, but the world cannot altogether overcome a certain uneasiness when it remembers the last illness of the illustrious patient's father, the late Emperor Frederick, also a laryngeal affection which, while for a long time it involved no conviction of malignity, finally declared itself as due to cancer.

Whatever activity we may still accord to heredity in the predisposition to disease, we have practically given up the idea of its actual production of disease. We still admit an hereditary predisposition, but are doubtful of an actual inheritance of malignant disease itself. We no longer look upon the offspring of a parent who has succumbed to cancerous or tuberculous disease as in a high degree of probability foredoomed to either of those diseases, but we cannot divest ourselves altogether of the idea of the direct inheritance of disease. Especially is it almost impossible to get rid of the notion when we find the same organ affected in father and son. Moreover, in the case

of royal families heredity may perhaps be much intensified by the number of intermarriages.

It is to be recalled that Emperor Frederick's laryngeal trouble, though early pronounced malignant by the German surgeons, was almost up to the fatal termination maintained by Sir Morell Mackenzie to be benign, in which contention, as the result of frequent microscopical examinations, he was constantly upheld by the renowned Virchow. Let us hope—for the sake of the world's political stability as well as out of admiration of Emperor William's personality—that his laryngeal growth is not destined to follow the course of his father's. We may well found this hope on the reflection that Nature constantly strives for "the recovery of lost perfection."

[Since the foregoing was written the *Lancet* has favored us by cable with the substance of what it will say editorially, as follows:

"The clinical details are too meagre for dogmatism, but the report of the medical advisers is very clear that in the piece removed nothing justifies a suspicion of malignancy. Orth would have expressed himself more guardedly and would not have spoken of the growth as benign, if he had had the least doubt. Schmidt is the surgeon who pronounced the late Emperor Frederick's condition cancerous, and he would certainly not have operated upon Emperor William without consulting other advisers, if he had not felt certain the growth was innocent. The family history must cause anxiety, but the medical opinion is clearly favorable."]

THE REPLACEMENT OF A LOST EAR.

The following advertisement has appeared in some of the New York newspapers within the last week: "\$5,000.00 will be paid for right ear 2½ inches long, 1¼ inches wide, with perfect curves and full lobe; the ear may be from either male or female, and must be from a person in perfect health; offers by mail considered." The purpose of this advertisement, which appeared in the *New York Times* under the head of "Personal," is more fully set forth by one of the *Times's* writers in an article, more than half a column long, on the first page of last Sunday's issue, purporting in great measure to present an interview with the advertiser, a doctor. It is said that the ear is wanted for the purpose of grafting it upon the head of a

man who has lost his right ear. We quote from the interview as follows:

You know something of the way in which it is to be done, don't you? Well, the person who is to lose the ear and the man who is to get it will be fastened together. Only the upper portion of the ear to be transplanted will be cut loose to start with. This will be fastened on the man who has no ear, and the heads on both will be bound tightly together. . . . The time that these two persons will have to be fastened together depends upon the condition of the blood. It will require the time that it takes to heal the ordinary wound.

It is always dangerous to prophesy that the conceivable is impossible, but it seems to us well nigh impossible to so connect the heads of two persons that the right ear of the one shall occupy the site of the right ear of the other, unless the implanted ear is to look backward or be upside down or unless so sharp a turn is made in it as to preclude the possibility of maintaining its circulation during the time required for adhesion to take place. Furthermore, in case a woman is chosen as the donor, how are the proprieties to be respected for that period? The scheme appears to us utterly impracticable, but we are ready to learn.

CORDITE AS AN INTOXICANT.

It seems that this explosive must be added to the long list of substances used by persons addicted to the use of unusual intoxicants, and a very valuable, though discursive, article on its effects, by Major J. W. Jennings, D. S. O., appears in the October number of the *Journal of the Royal Army Medical Corps*. Major Jennings sufficiently accounts for the disjointed character of his article by stating the circumstances under which he wrote it. The composition of cordite, roughly stated, is said to be fifty-eight per cent. of nitroglycerin, thirty-seven per cent. of gun cotton, and five per cent. of "mineral jelly" (vaseline or some similar product, we presume). Numbers of the British soldiers campaigning in the recent Boer war became addicted to the use of the compound, which they obtained from their Lee-Metford cartridges, either taking it into the stomach or lighting their pipes with it and inhaling more or less of its fumes.

The effects of nitroglycerin on the organism have been quite thoroughly observed and are very well known, but we are not sure that those of gun cotton, taken internally, have been the subject of much systematic study. Cordite certainly ap-

pears to affect the system in a manner quite *sui generis*. Its primary action seems to be that of an exhilarant, and this is particularly marked if it is taken in solution, as in tea. So taken, says Major Jennings, cordite is immediately so exhilarating as to produce almost demoniacal actions. "If many have partaken of the beverage, all begin talking at once, seemingly anxious to inform each other of everything that happened to them since their birth. This condition lasts perhaps two or three hours, when the effect seems to die away and sleep overcomes them, or, if there should be an unexpected cessation of the excitement (as upon being reprimanded for making such a noise), they all seem to be overcome by a stern sense of discipline, roll over, and go to sleep." The sleep is followed by a splitting temporal and occipital headache which sometimes lasts as long as thirty-six hours.

The joint effects of cordite and beer seem to be particularly remarkable; in the language of the subject observed by Major Jennings, if a few pints of beer were taken in conjunction with a solution of cordite boiled down to the consistence of glycerin, it very shortly made him "as mad as a man can get without becoming absolutely a raving lunatic." Yet beer was almost essential to the "sobering up" of this person after a cordite spree.

There was a suspicion that some of the men took cordite in order to upset their physical condition in such a manner as to lead to their being sent home as invalids, but Major Jennings does not think its effects are "such as are likely to help a man to escape service, except it be by incarceration as a hopeless lunatic or by *felo de se*." Indeed, no lasting effects are recorded by him, though we can hardly suppose that they would be lacking in cases of prolonged addiction to the use of the poison.

SOME MIMICRIES OF EYE STRAIN.

II.

The mimicries of eye strain to which we referred last week were examples of what may be due to the so called "lithæmic state," or "gouty, or uric acid diathesis." Another and still more interesting example is to be found in the tender points in the cil-

iary body, with pin point ocular pain, made worse by the act of reading, and suggestive of the ordinary ciliary pain so common in astigmatic eyes. If one examines under these circumstances, distinctly tender spots, sometimes, indeed, exquisitely tender spots, occasionally outlined by minute areas of injection, can be discovered. They may be described as the *points douloureux ciliaires*. The simulation of eye strain from refractive error is perfect and the deception further enhanced by the fact that mydriasis, as one would naturally suppose, relieves the condition, but in spite of glasses the pin point pain recurs and persists, to be relieved only by a suitable dietetic and medicinal regimen.

How frequently is the sensation of a foreign body in the eye not the result of anomalies of refraction, but a symptom of neurasthenia, perhaps hysteria, and analogous to the sore spots of which hysterics and neurasthenics so often complain on the sternum, in the inframammary region, in the scalp, and elsewhere on their surface, and which add so mightily to their self-centredness. With the restoration of nervous control the symptoms disappear. To be sure, part of the treatment demands the proper neutralization of refractive errors, but it is not sufficient, and the symptoms will persist in neurasthenics even when the best optical aid has been given, and disappear only when a thorough general regimen, rest cure and the like, have been employed.

Subnormal accommodative power as a sequel of acute illness and as part of the symptomatology of neurasthenia and hysteria is one of the commonest of the conditions which present themselves for ophthalmic consideration, but persisting subnormal accommodative endurance, unrelieved by proper glasses, should cause the suspicion of saccharine diabetes and may be one of its symptoms, exactly as is the rapid development of myopia or the rapid increase of a preexisting myopia, or, in general terms, as is the rapid change in refractive conditions.

But the matter does not end here. We know, of course, that paralysis of accommodation, as well as of the external ocular muscles, may be caused by fish and meat poisoning; in other words, by ptomaine poisoning in the widest acceptance of that word. Perhaps we do not real-

ize, however, the frequency with which subnormal accommodative power, amounting to a paresis and consequently an asthenopia unrelieved by glasses, may be due to various types of intestinal intoxication and to the ingestion of food stuffs which may be innocent enough in one organism, but which are poisonous in another, inasmuch as they give rise to the toxins to which reference has been made. The management of such cases requires investigation from the standpoint of advanced physiological chemistry, and there is no manner of doubt that many of the stubborn cases of weakness of accommodative power are due to intestinal toxæmias, not to mention some of the esophorias, and that glasses of all kinds, and still worse, operations on the ocular muscles, are useless if the basal cause of the condition remains unrecognized. It should be very distinctly understood that in the investigation of cases of this character all proper optical therapeutic measures should be employed, but in the event of their failure symptoms like those detailed and others of similar character should lead the attending physician to a thorough investigation of the general organism.

G. E. DE SCHWEINITZ.

THE HEALTH COMMISSIONERSHIP OF NEW YORK.

During the Low administration, which is now drawing to a close, Dr. Lederle has been a most efficient health commissioner, but it is not expected that he will be continued in office under Mayor McClellan. The only name we have heard mentioned in connection with the succession is that of Dr. John H. Girdner. Dr. Girdner would undoubtedly bring zeal and intelligence to the administration of the department, and in particular he might be looked to to moderate the intolerable din of the town.

MEDICAL ORTHOEPEY.

Perhaps we are going out of our province in venturing to criticize the pronunciation of our colleagues, etymology being more strictly our domain. *Sutor ne supra crepidam* may be quoted against us. However, in having the pleasure of listening to many learned and scholarly papers at recent meetings of societies and associations, our ears have been shocked at certain mispronunciations. As physicians, especially in rural districts, are looked upon as "guides, philosophers, and friends," it behooves them to maintain a strict standard, not only of mor-

ality, but of grammatical and orthoepical correctness. We have been pained to hear qualified practitioners speaking of having made "ink'wherries," a pronunciation which Dickens ridiculed in his *American Notes*; of being convers'ant with certain data; of patients suffering from neurasthe'nia; of establishing a prece'dent; and of patients' going to the grave with pare'sis. A brief interview with the dictionary will put our brethren right in these matters, and we trust no ill feeling will be engendered by this little reminder.

THE RÖNTGEN RAY TREATMENT OF CANCER.

The general impression among investigators at present, so far as we are able to make out, is to the effect that the Röntgen rays are more efficient in superficial cancers than in those that are seated deep, but certain observations by Donner and Lemoine (*Bulletins et mémoires de l'Académie de médecine*, 1903, No. 23; *Berliner klinische Wochenschrift*, October 19th) do not seem to bear out this impression. They report the case of a woman, sixty-four years old, in whom a tumor of the greater curvature of the stomach disappeared after seven sittings; also that of a woman, forty-eight years old, in whom two tumors disappeared after twelve sittings. In a case of cancer of the breast, diagnosed histologically, the neoplasm disappeared almost entirely at the end of two months. On the other hand, they observed no effect of the Röntgen rays in a case of cancer of the œsophagus.

THE RIGOR MORTIS OF INVOLUNTARY MUSCLES.

Placzek (*Archiv für pathologische Anatomie und Physiologie und für klinische Medizin*, clxxiii, 1; *Berliner klinische Wochenschrift*, October 19th) reminds us that rigor mortis as it affects the unstriated muscles has not been thoroughly studied. He is to be commended for having taken up the investigation. Thus far, he has dealt particularly with the iris. He finds that during the first two hours after death the pupil begins to contract and that it reaches its point of greatest contraction in from six to twenty-four hours; then it dilates. Neither contraction nor dilatation is necessarily equal in the two pupils. Mydriatics employed shortly before death have no influence on the post mortem condition of the pupil, so that, for example, mydriasis in the cadaver must not be looked upon as a sign of atropine poisoning. But suprarenal extract does seem to have an effect upon the post mortem condition of the pupils, intensifying the phenomena mentioned.

News Items.

Society Meetings for the Coming Week:

MONDAY, November 16th.—New York Academy of Medicine (Section in Ophthalmology); New York County Medical Association; Hartford, Conn., Medical Society; Chicago Medical Society.

TUESDAY, November 17th.—New York Academy of Medicine (Section in General Medicine); Buffalo Academy of Medicine (Section in Pathology); Ogdensburg, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Medical Society of the County of Kings, N. Y.; Baltimore Academy of Medicine.

WEDNESDAY, November 18th.—Woman's Medical Association (New York Academy of Medicine); Medicolegal Society, New York; Northwestern Medical and Surgical Society of New York (private); Northwestern Medical and Surgical Society of New York (private); New Jersey Academy of Medicine (Newark); New York Society of Dermatology and Genitourinary Surgery (private); New York Academy of Medicine (Section in Genitourinary Diseases).

THURSDAY, November 19th.—New York Academy of Medicine; Brooklyn Surgical Society; New Bedford, Mass., Society for Medical Improvement; Medical Society of City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

FRIDAY, November 20th.—New York Academy of Medicine (Section in Orthopædic Surgery); Clinical Society of the New York Postgraduate Medical School and Hospital; Baltimore Clinical Society; Chicago Gynecological Society; Manhattan Medical and Surgical Society (private).

NEW YORK, CITY AND STATE.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending November 7, 1903:

	Week ending Nov. 7	Week ending Nov. 14
Measles.....	12	27
Diphtheria.....	1	1
Scarlet fever.....	2	1
Whooping cough.....	1	1
Typhoid fever.....	93	25
Cerebrospinal meningitis..	1	1
Totals.....	1,000	217
		953
		230

Woman Examiner in Lunacy.—Dr. Regina Flood Keyes, formerly of Elmira, now of Buffalo, has been appointed an examiner in lunacy for Erie county.

St. Elizabeth's Hospital, at 223 and 225 West Thirty-first Street, has been sold to the Pennsylvania railroad company, the site being required for their new station.

At the College of Medicine of Syracuse University, the freshman class have adopted the following awe inspiring yell:

Scalpel, scissors, lance, and probe;
Chloroform anodyne, crape, and shroud;
Send the stiff to hell or heaven;
Syracuse medicos, 1907!

New York Society for the Relief of Widows and Orphans of Medical Men.—The annual meeting of the society will be held at the Academy of Medicine, 17 West Forty-third Street, on Wednesday, November 18, 1903, at 8 p. m. Andrew F. Currier, M. D., Secretary, 17 West Forty-third Street.

St. Luke's Hospital on Morningside Heights will have a new pavilion for private patients through the generosity of Mrs. Margaret J. Plant. This is the sixth of ten wings planned for the complete structure.

Still the Swindlers Come.—We learn from a physician in the eastern district of Brooklyn, that a shabby looking man is calling at the offices of physicians during their absence and stating he has been ordered to clean the instruments and office fixtures. He presents a very soiled card from some instrument dealer as a credential.

Death of a Prominent Medical Publisher.—Regret will be widely felt at the intelligence of the death of Mr. William M. Warren, publisher of the *Therapeutic Gazette, Medicine, the Medical Age*, and the *Bulletin of Pharmacy*, which took place at his home in Detroit, Mich., on Wednesday, November 11th.

The Mount Sinai Hospital Society has secured the large building at 17 Stanford Street for hospital purposes. The demand on the recent establishment at 105 Chambers Street has been so great that this step was necessary. The new establishment will be open night and day, and is expected to be in working order by November 10th.

The State Department of Health at the coming meeting of the legislature will urge the establishment of a bureau to inspect the summer resorts of New York State; ten thousand dollars would be required for the purpose. Such a bureau would protect intending guests of the resorts and act as an incentive to hotel keepers to put their premises in proper order.

The J. Hood Wright Hospital, if it is finally decided to cut through One Hundred and Sixty-seventh Street, may obtain a new building of the value of \$2,000,000 from Mrs. Mary R. Wright, widow of the founder. The present accommodations of the hospital are totally inadequate for the large territory it draws upon, between Eighty-sixth Street, West, Kingsbridge, Lenox Avenue, and the North River.

University of Buffalo: The D. W. Harrington Lectures.—The medical faculty of the University of Buffalo has chosen Dr. Samuel J. Meltzer, of New York, to deliver these lectures for 1903. The subject selected by Dr. Meltzer is *Cedema, a Consideration of the Physiological and Pathological Factors Concerned in Its Formation*. The lectures will be delivered in the medical college, November 30th, and December 1st, 2nd, and 3rd, at 5 p. m. The medical profession is cordially invited to attend. These are the first lectures given on this foundation; they will be given as often as the income from the fund will warrant.

Seton Hospital at Spuyten Duyvil has established a branch for the care of tuberculous children, located in a stone building about 600 feet west of the hospital proper. The building is large and well equipped, and will accommodate about one hundred children; twenty are now being cared for. A kindergarten and other class-

rooms are provided for the little convalescents, and the surrounding twenty-eight acres on the banks of the Hudson and wooded with pine offer every advantage for the modern treatment of tuberculosis. The institution is in charge of the Roman Catholic Sisters of Charity, but is non-sectarian as to patients.

The Craig Colony Prize.—A prize of \$200 is offered by Dr. Frederick Peterson for the best original essay on the ætiology, pathology, and treatment of epilepsy. The conditions to be complied with, are as follows: 1. The paper must show original research work. 2. The subject matter of the essay shall not have been previously published. 3. The manuscript submitted shall be in English and be sent to Dr. Peterson at 4 West Fiftieth Street, New York city, before September 30, 1904. The successful manuscript becomes the exclusive property of the Craig Colony. 4. Each paper submitted must be accompanied by a sealed envelope containing the name and address of the author, and bearing on the inside a motto or device which is also to be inscribed upon the essay. The award will be made by a committee of the New York Neurological Society, and the result announced at the annual meeting of the Managers of the Colony the second Tuesday in October, 1904. Any additional information about the matter may be obtained from Dr. W. P. Spratling, Sonyea, N. Y.

Civil Service Examinations for the State and County Service.—The State Civil Service Commission announces general examinations to be held November 28, 1903, including the following positions: Apothecary in State hospitals and institutions, assistant chemist in the cancer laboratory of the State department of health at Buffalo, a homeopathic physician, sixth grade pupil nurse in the Erie County Hospital, smallpox expert in the department of health, superintendent of the State hospital for the treatment of incipient pulmonary tuberculosis, trained nurse in State hospitals and institutions, woman physician of both the regular and homeopathic schools. Application for these examinations must be made on or before November 23rd. Full particulars of the examinations and blank applications may be obtained by addressing the Chief Examiner of the Commission at Albany.

PHILADELPHIA AND PENNSYLVANIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

	Week end'g Oct. 31.		Week end'g Nov. 7.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	13	8	42	4
Diphtheria	94	10	83	12
Scarlet fever.....	60	6	108	0
Typhoid fever.....	69	11	76	12
Consumption .....	..	68	0	47
Cerebrospinal fever.....	..	..	0	0

Philadelphia Obstetrical Society.—At the last meeting of the society, held on November 5th, the following candidates for resident membership were elected: Dr. Max R. Dinkelspiel, Dr. Wm. J. McNaul, and Dr. Louis Spitz, all graduates of the Jefferson Medical College, of Philadelphia.

The National Association for the Study of Epilepsy held its third annual meeting in Philadelphia in the hall of the College of Physicians on November 5th. The short presidential address was made by Dr. Wharton Sinkler, who dwelt upon the necessity for organization and concentrating forces against epilepsy. The objects of the association were briefly expressed as follows: 1—To stimulate the study of the causes and the methods of cure of this disease. 2—To advocate the care of epileptics in institutions where they may receive common school education, acquire trades, and be treated by the best medical skill for their malady. 3—To assist the various States in America in making proper provision for epileptics.

The Pathological Society, of Philadelphia.—A meeting was held in the lower hall of the College of Physicians, on Thursday, November 12th, at 8.15 p. m., with the following programme: Chronic Adhesive Peritonitis, with Multiple Non-obstructive Angulations of the Colon, by Dr. W. M. L. Coplin; Carcinoma Developing in and from a Gastric Ulcer, by Dr. Morris J. Lewis and Dr. Robert N. Willson; Carcinoma of Heart Secondary to Carcinoma of Penis, by Dr. William Pepper; Primary Carcinoma of the Appendix, with Report of a Case, by Dr. C. C. Norris; Primary Carcinoma of the Pancreas; and Two Cases of Primary Carcinoma of the Gall Bladder, by Dr. W. T. Longcope; Ulcus Carcinomatosum, by Dr. J. D. Steele. D. J. McCarthy, M. D., Secretary, 1342 Pine Street.

The Inspection of Philadelphia School Children.—One of the public schools of Philadelphia, the Mt. Vernon school, has been subjected to Dr. Edward Martin's plan of inspection for children with communicable diseases. A physician and a trained nurse looked into the health of the children, with the result that from twenty to thirty pupils a day were found to be in some stage of disease which required home care and treatment. These diseases included principally diseases of the eye, throat, and skin. The nurse who was from the Visiting Nurses' Society of Philadelphia then called at the homes of the children and explained to the parents what steps should be taken in the matter. It has been found that such inspection does not interfere with the work of the pupils, and that it promises to be a source of protection and great benefit.

Contagious Diseases Increasing in Philadelphia.—The week ending November 7th has been productive of an array of statistics which has given rise to considerable comment and apprehension. The largest gain of the year in the number of new cases of smallpox is a characteristic feature of the report from the board of health. The number of new cases continued to increase even after the report had been compiled. This dissemination of the disease resembles somewhat that in the epidemic in Philadelphia of 1901. According to the reports of the bureau of health out of the sixty-three cases reported in two weeks ending October 24th, there were twenty-eight patients who had never been vaccinated and thirty-five had not been vaccinated since infancy. All of the cases were of the most virulent type,

and twenty of the patients died. Both typhoid fever and scarlet fever showed large increase. Of the former ninety-six new cases were reported compared with sixty-nine, and one hundred cases of scarlet fever compared with sixty for the previous week. In the Twenty-fifth Ward ten cases of scarlet fever were reported, and nine each in the First and Twenty-first Wards. Notwithstanding the increased prevalence of scarlet fever, no deaths occurred from this disease during the week ending November 7th, although six deaths occurred during the previous week when there were fewer cases. The authorities are endeavoring rigidly to enforce vaccination wherever possible.

American Röntgen Ray Society.—The following papers have been announced for the meeting, to be held at the University of Pennsylvania on December 9th and 10th next: President's Address, by Professor Arthur W. Goodspeed, Ph. D., of Philadelphia, Pa.; Pathologic Changes in Tissue Under the Influence of the X Ray, by William S. Newcomet, M. D., of Philadelphia, Pa.; The Results of the Röntgen Method in the Diagnosis of Renal Calculus, by Charles Lester Leonard, M. D., of Philadelphia, Pa.; Two Cases of Severe X Ray Necrosis, Presenting Some Unusual Features, by Clarence Edward Skinner, M. D., of New Haven, Conn.; Skiagraphy of the Chest, by Henry Hulst, M. D., of Grand Rapids, Mich.; How to Obtain An Instantaneous Skiagraph of the Thorax, by Mihran K. Kassabian, M. D., of Philadelphia, Pa.; The Development of the Skeleton, Radiographically Considered (Lantern Slides), by Preston M. Hickey, M. D., of Detroit, Mich.; The Therapeutic Effects of the X Ray, as Shown from the Results of Treatment of One Hundred Cases, by Henry K. Pancoast, M. D., Harvey Bartle, M. D., and Mr. Henry C. Welker, of Philadelphia, Pa.; The Röntgen Ray Diagnosis of Obscure Diseases, by Russell H. Boggs, M. D., of Pittsburgh, Pa.; Dangers of the X Ray Operator, by John T. Pitkin, M. D., of Buffalo, N. Y.; Developers, by Gordon G. Burdick, M. D., of Chicago, Ill.; A Comparative Study of Fractures of the Extremities, by Martin I. Wilbert, of Philadelphia, Pa.; Technique for Making Good Dental Skiagraphs, by Weston A. Price, D. D. S., of Cleveland, Ohio; Care and Use of the Static Machine, by Henry E. Waite, M. D., of New York, N. Y.; The Stereoscope in Radiography, by E. W. Caldwell, of New York, N. Y.; The Influence of the Röntgen Ray Upon the Blood of Normal Individuals (An Experimental Study), by William Krauss, M. D., of Memphis, Tenn.; Exploding Tubes, by Henry K. Pancoast, of Philadelphia, Pa.; Treatment of Lupus and Epithelioma by the Combined Use of the X Ray and Ultra-Violet Light, by J. N. Scott, M. D., of Kansas City, Mo.

Organization of Pennsylvania Nurses.—The meeting for the completion of the organization of the Graduate Nurses' Association of the State of Pennsylvania was called to order at the Hotel Schenley, Pittsburgh, on October 5 and 6, 1903, at 9.30 a. m. The opening prayer was made by the Right Reverend Cortland Whitehead, of Pittsburgh, followed by an address of welcome by Dr.

Percival Eaton, also of Pittsburgh. Response by Miss Brobson, of Philadelphia, chairman. The first session was taken up with the adoption and signing of the constitution by about eighty nurses. The first address was made by Miss Allerton, chairman of the New York State legislature committee, who gave an interesting talk on organization work and many valuable hints. The afternoon session was fully taken up by the adoption of the by-laws.

On the second day an address was made by Miss Sophia Palmer, editor-in-chief of the *American Journal of Nursing*, who supplemented Miss Allerton's address. The reports of the various committees were read and approved. Resolutions of thanks were tendered to Bishop Whitehead for his opening prayer, Dr. Percival Eaton for his cordial welcome, the nurses of Pittsburgh for their entertainment, Miss Allerton and Miss Palmer for their address and help, and to the management of the Hotel Schenley for the use of rooms in which to hold meetings. The permanent officers for the year elected were: President, Miss Anna E. Brobson, of Philadelphia, Pa.; first vice-president, Miss Curtis, of Phoenixville, Pa.; second vice-president, Miss McKee, of Johnstown, Pa.; secretary, Miss Ida F. Giles, of Pittsburgh, Pa.; treasurer, Miss A. M. Shiels, of Philadelphia, Pa.

The next meeting of the association will be held at Harrisburg, on Wednesday and Thursday, of the third week in January.

A full report of the meetings, printed in pamphlet form, may be had for ten or fifteen cents upon application to Mrs. Geo. Loeffler, chairman of the press and publication committee, 5165 Woodward Street, Pittsburgh, Pa.

CHICAGO AND ILLINOIS.

Statement of Mortality for the Week Ending November 7, 1903, compared with the preceding week and with the corresponding week of 1902. Death rates computed on estimated mid-year populations of 1,885,000 for 1903, and of 1,820,000 for 1902:

	Nov. 7, 1903.	Oct. 31, 1903.	Nov. 8, 1902.
Total deaths: All causes.....	476	473	469
Principal causes of death:			
Acute infectious diseases.....	31	30	25
Apoplexy.....	7	10	11
Bright's disease.....	41	37	25
Bronchitis.....	18	14	18
Consumption.....	37	52	49
Cancer.....	14	21	16
Convulsions.....	9	9	11
Diphtheria.....	17	19	15
Heart diseases.....	40	48	38
Measles.....	0	1	1
Nervous diseases.....	29	23	16
Pneumonia.....	67	63	67
Scarlet fever.....	5	0	2
Suicide.....	14	11	9
Typhoid fever.....	10	7	18
Violence (other than suicide).....	23	25	32
Whooping cough.....	2	1	3

The McAllister Hospital, of Chicago, has received a bequest of \$1,000 by the will of the late Mrs. Jane McAllister, who had previously given \$20,000 for the new building now in course of erection.

The Medical Woman's Club, of Chicago, had arranged for a banquet to be given in honor of Dr. Sarah Hackett Stevenson on Saturday evening, November 14th, but it has been indefinitely postponed in consequence of the serious illness of Dr. Stevenson.

The Lemont Epidemic.—Four new cases of smallpox were sent to the Isolation Hospital during the week—none ever vaccinated, all adults. There remain twelve cases under treatment in hospital. The smallpox situation at Lemont is believed to be under control. Six cases have reached the city from that place thus far. These were all in unvaccinated adults.

Pneumonia Increasing.—The only noteworthy feature of the weekly mortality statement is the increase of deaths from pneumonia. The sixty-seven reported form fourteen per cent. of the total deaths and are eighty-one per cent. in excess of the deaths from consumption. The general death rate from all causes is very slightly higher than that of the previous week, but two per cent. lower than for the corresponding week of last year.

American Electromedical Society.—The first annual meeting of this society will be held December 1, 2, 3, 1903, at the Masonic Temple, Chicago. This society, with over one hundred and fifty members, has for its object "investigation in electricity and allied sciences, and the encouragement of their application to medicine and surgery by the formation of district and local societies." Papers will be read by the following: Dr. John B. Murphy, of Chicago; Dr. Byron Robinson, of Chicago; Dr. G. Betton Massey, of Philadelphia; Dr. J. Mount Bleyer, of New York; Dr. C. S. Neiswanger, of Chicago; Honorable John M. Smulsky, city attorney for Chicago; Dr. J. Rudis-Jicinsky, of Cedar Rapids, Iowa; Dr. H. Preston Pratt, of Chicago; Honorable Edward B. Elliott, city electrician for Chicago; Dr. Clarence Skinner, of New Haven, Conn.; Dr. J. N. Scott, of Kansas City, Mo.; Dr. R. S. Gregg, of Chicago; Dr. Mirhan K. Kassabian, of Philadelphia; Dr. T. Proctor Hall, of Chicago; Dr. A. D. Rockwell, of New York; Dr. Carl S. Beck, of New York; Dr. Heber Robarts, of St. Louis, Mo.; Dr. John E. Gilman, of Chicago; Dr. Chas. G. Davis, of Chicago; Dr. C. P. Clemensen, of Chicago; Dr. J. P. Hetherington, of Logansport, Ind.; Dr. O. W. McMichael, of Chicago; Dr. O. S. Barnum, of Los Angeles, Cal.; Dr. Elmore Pettyjohn, of Chicago; Dr. Geo. F. Hawley, of Chicago; Dr. John E. Harper, of Chicago; Dr. Lloyd Hammond, of Chicago; Dr. Hamilton Forline, of Chicago; Dr. R. H. Bartlett, of Chicago; Dr. H. P. Fitzpatrick, of Chicago. T. P. Hall, Secretary.

GENERAL

The City Hospital, of Cincinnati, O., has appointed Dr. Carl Hiller bacteriologist of the institution in place of Dr. A. B. Devers, resigned.

The City Hospital, of Louisville, Ky., has appointed Dr. C. L. Moir secretary of the institution.

St. Vincent's Hospital, Bridgeport, Conn.—The cornerstone of this institution was laid on November 8th by Bishop Tierney.

New Chair in the University of Maryland.—On October 28th, Dr. Eugene F. Cordell delivered the first lecture on the History of Medicine, as holder of the chair of that subject, the first to be established in the United States.

The Calcasieu Parish Medical Society was organized on November 2nd with the following officers: President, Dr. A. J. Perkins; vice-president, Dr. Perrault, of Jennings; secretary and treasurer, Dr. Pearl Munday. The headquarters of the society are at Lake Charles, La.

The New Britain (Conn.) General Hospital opened an annex on the 4th instant. It is a large brick structure of English design, and will accommodate some sixty patients. The building is equipped with the modern fire proof doors, marble stairways, steel ceilings, and metal lathing.

An Organized Black List.—In Newcastle, Ind., the physicians have made out a black list which contains over 250 names of delinquent patients, some of whom, it is said, are well able to pay. Considerable interest is manifested in the list and curiosity as to what the delinquents will do.

The Bi-Parish Medical Society of St. John the Baptist and St. Charles parishes was organized at Edgard, La., on the 2nd instant. Dr. L. S. Donaldson, of Reserve, was elected President; Dr. M. C. Stevens, of Ama, vice-president, and Dr. N. Z. Simon, of Wallace, secretary and treasurer.

An Actress Studying Medicine.—Fraülein Nello Hilgerman, one of the stars of the opera at Vienna, has left the dramatic for the operating theatre, having begun her studies with a course in surgery. The example was set in Paris, however, where a well known actress recently took up the study of medicine.

Japanese Physician Studying in Denver.—Dr. Masayasn Kawakami, of Tokio, Japan, a graduate of a medical school in San Francisco, is in Denver, Colo., studying the hospitals, particularly their construction, with a view of improving similar institutions in his native land. He will soon come to New York and will go hence to London.

The First Woman Physician in the United States.—Dr. Sarah F. Mackintosh, who died at Asbury Park, N. J., on October 21st, is said to have been the first woman physician to have been admitted to membership in a medical society in the United States; she joined the Passaic Medical Society in 1871. She was born in New York, and was the daughter of A. F. Fonda.

Plans for the Alexandra Isolation Hospital, at Montreal, Can., have been completed and accepted; they show an administration building in the centre, ninety-six by forty-four feet, while the chief wards for measles, scarlet fever, and diphtheria are one hundred and twenty-five by forty feet. The erysipelas and observation wards are sixty by thirty-two feet each.

The American Public Health Association, among other resolutions, has passed one deploring the action of Congress in abolishing the army canteen, and urging its reestablishment, stating that drunkenness has increased since the abolition of the canteen, and that the morale of the men has deteriorated. Fines have increased and the men are deprived of the delicacies, etc., which were purchased from the profits of the canteen.

Nursing Taught in a Night School.—In the evening high school of Charlestown, near Boston, nursing is now in its fourth week as a subject of tuition, and over one hundred pupils have registered for the class, which is taught by Dr. Laura A. Hughes. It is not intended to turn out trained nurses, but to impart a sort of household knowledge, similar to that given in cooking and dress-making.

The Boston Floating Hospital, concerning which we have had the pleasure of printing many interesting items, is soliciting subscriptions for the purchase of a new boat, which will cost at least \$60,000. Nearly \$12,000 have been secured and \$2,000 have been pledged, and Messrs. Lee, Higginson, and Company, the treasurers of this fund, are so confident that the requisite amount will be secured, that they have ordered the installation of a dynamo for electric lighting and the plans for the craft have already been drawn. Some five months will be required to build the boat.

The Medicolegal Society, of Washington, D. C., at its meeting on October 19th, resolved to petition Congress to enact that druggists be henceforward obliged to register the sale of carbolic acid and wood alcohol; that alcohol in any form should not be sold without a prescription; that all poisons, required by law to be registered, be labelled with a number and the date of purchase; that the antidote of the poison so sold be pasted on the bottle containing the poison, and that all patent medicines sold in the District have the formula on the label. Fifty per cent. of the suicides, according to the society, are accomplished by the aid of carbolic acid and the unrestricted sale of that article is considered partly responsible.

Hospital Ships Wanted by the Navy.—In the annual report of Surgeon-General Rixey to the Secretary of the Navy, this year, an appropriation is recommended to build a naval hospital to be situated within the reservation of the navy yard at League Island. The hospital at Newport, R. I., although practically new, it is stated, never has been satisfactory. A new hospital is recommended for Portsmouth, N. H., also the reconstruction of the hospital buildings at Chelsea, Mass., and Pensacola, Fla. An additional appropriation for the New York hospital is said to be needed, and the remodeling and enlargement of the hospital at Norfolk is urged. A much larger hospital, it is stated, will be required at the Puget Sound yard at an early date, and the acquirement of a site is recommended. The present hospital at Sitka, Alaska, it is stated, "can hardly be said to deserve the dignity of that name." The construction of two hospital ships to cost \$1,630,000 each is recommended. Attention is called to the need of a naval sanitarium for the treatment of tuberculosis. It is imperative, says Surgeon-General Rixey, that temporary provision be made for caring for the sick on the Naval Academy reservation, pending the completion of a permanent structure. Authority of Congress for the appointment of dentists is requested; also women nurses for naval hospitals.

Pith of Current Literature.

MUENCHENER MEDIZINISCHE WOCHENSCHRIFT.

October 6, 1903.

1. Does Hygiene Lead to Race Degeneration?
By MAX GRUBER.
2. Significance of Hyperglobulia in Congenital Heart Diseases,
By E. FROMHERZ.
3. Acute Cæcal Inflammation,
By REISINGER.
4. Bacteriuria,
By CNOFF.
5. Action of Thermal Soles Containing Dioxide,
By O. REISSNER, and G. GROTE.
6. Epidermic Pneumonia,
By FRANZ SPÆT.
7. Surgical Treatment of Pulmonary Abscesses,
By KAREWSKI.

2. Hyperglobulia in Congenital Heart Disease.—Fromherz reports six cases of undoubted congenital heart disease of various kinds, in all of which a marked hypererythrocytosis was present as an important symptom. The author explains this condition on the ground of the theory of compensation.

3. Acute Cæcitis.—Reisinger records two cases which ran the clinical course of appendicitis, but which proved to be instances of gangrene of the cæcum without the slightest involvement of the appendix. While the author does not insist upon any particular ætiological factor in these cases, he nevertheless regards undue distention of the colon as one element in the causation of the disease.

4. Bacteriuria.—Cnopf relates a case by which it is shown that there can be a bacterial invasion of the bladder which can evoke, by toxic action, general sepsis, without causing any irritation of the bladder wall. He advises the bacteriological examination of the urine in febrile cases in which no diagnosis can be made.

7. Surgical Treatment of Abscess of the Lung.—Karewski says that a natural cure of abscess of the lung may be expected in young persons, in small foci of pus at the apex, and in larger foci at the base of the lung, provided that the cases are recent. Therefore expectant treatment may be followed in such cases, individualizing in each case, however. If a spontaneous opening does not soon appear, and if it appears, if the symptoms do not soon disappear, or if it is evident that the abscess is not emptying itself, operative intervention is urgently demanded. The earlier the operation is performed, the more perfect is the result, and the less the opportunity for small foci to extend.

ZENTRALBLATT FUER GYNAEKOLOGIE.

October 3, 1903.

1. Eclampsia, Enormous Placenta,
By KÆNIG.
2. Four Cases of Eclampsia,
By WINDISCH-ÆDON.
3. The Funnel-Shaped Pelvis,
By RICHTER.

1. Eclampsia.—Kænig reports a case of eclampsia in which the placenta was of enormous size, and he believes that the great size of the placenta may have an influence in evoking eclampsia, on the basis of the disease being due to poisoning by foetal metabolic products. In this case, the placenta weighed three pounds and two ounces, almost one half as much as the child.

2. Eclampsia.—Windisch-Ædon reports four cases. In concluding his remarks on the treatment, he says that in those cases in which profuse sweating can be produced by saline infusions, warm packs and baths, morphine can be given and the case terminated in anæsthesia, and that the percentage of recoveries is higher than under other methods of treatment. In private practice this method is as easily pursued as in hospitals.

3. Funnel-Shaped Pelvis.—Richter, in reporting a case, says that the funnel-shaped pelvis is one in which the pelvic inlet is normal, but its outlet becomes gradually narrower (simple, genuine, funnel-shaped pelvis). The diameter at the outlet alone would offer no cause of dystocia to a full term living child with an easily molded head, but it forms an absolute cause of dystocia on account of the participation of both head and pelvis. Induction of premature labor changes the absolute impossibility of birth to a relative one, depending upon the character of the pains, the position of the foetus, the size and molding capacity of the head and the degree of mobility of the pelvic joints.

PRESSE MEDICALE.

October 10, 1903.

1. Clinical Study of Syphilitic Icterus,
By FLOREA SIMIONESCU.
2. Ehrlich's Diazoreaction in Chronic Pulmonary Tuberculosis,
By H. HAMANT, and A. GOVIS.

1. Syphilitic Icterus.—Simionescu, besides quoting several authors, gives four cases in his own experience to show that jaundice is not an uncommon secondary manifestation. It yields, like other secondaries, to mercury, but appears, naturally, only in those subjects who have a predisposition to icterus.

2. Ehrlich's Reaction.—Hamant and Govis, having obtained this reaction once only in 156 cases, conclude that it is obtainable only when the system is thoroughly permeated with tuberculosis, or during febrile exacerbations, and is not to be relied upon in mild cases, or in the beginning of the disease.

October 14, 1903.

1. Sanatoriums of Leysin, from May 1, 1902, to April 30, 1903,
By MORIN.
2. Extraperitoneal Appendicocoele and Extraperitoneal Hernial Appendicitis,
By GUIBAL, and ROLAND.

1. Sanatoriums.—Morin's conclusions regarding sanatoria for tuberculous patients, properly located, are altogether favorable.

2. Appendicocoele.—Guibal and Roland recommend, after an exposition of several cases, that an extrasaccular hernia to the appendix be extirpated. If there is no sac, the appendix may be implanted in the cæcum. If the appendix is surrounded by pus and contamination of the peritonæum is feared, subserous ablation of the appendix may be advisable. Opening of the sac is not dangerous, and it may be closed as in the ordinary operation for hernia, or it may be drained temporarily, if opened accidentally in the midst of septic surroundings. If an extremely septic focus should be disclosed, open the abscess and

when suppuration has ceased, remove what remains of the appendix.

October 30, 1903.

1. Intestinal Streptococci, Bacteriology, *Ætiology*,
By P. NOBÉCOURT.
2. Sahli's Method of Clinical Examination of Stomach
Functions, By A. HABEL, and G. HUMBERT.

1. Intestinal Streptococci.—Nobécourt follows up his article in *Presse médicale* for September 26th, by a study of the literature of the subject and notes particularly the invasion of other organs by the germ, causing bronchitis, otitis, pharyngitis, etc. These cases vary in severity without apparent reason. There may be seven deaths out of eight cases, the rapid poisoning of the system preventing proper feeding. As to treatment, the serums are not valuable. Meat should be forbidden, also milk, and the diet confined to gruels, barley, oats, etc., with intestinal antiseptics and washing.

2. Sahli's Method.—Habel and Humbert give analyses of twenty-three cases where they used this method, which demands, after washing of the stomach, the administration of 300 grammes of soup, withdrawn an hour later. Gerber's hutynometer is then used to determine the amounts of fat in the gastric juice and in the remaining soup; the acidity of the gastric juice is thence deduced. The authors speak highly of the speed, relative accuracy, and other advantages of the method over those of other experimenters.

LYON MEDICAL.

October 11, 1903.

1. Treatment of Syphilis (*Continued*),
By A. GAILLETON.
2. A Contribution to the Semeiological Value of Albumoses; Is a Specific Property Claimed for Them? Their Coagulation by Ether, By PIÉRY.

1. Treatment of Syphilis.—Gailleton sums up the treatment thus: (1) Neutralizing the noxious action of the infective agent, which can be done only by the use of mercury and iodine. (2) Elimination of toxic products. (3) Strengthening the organism to resist the depression caused by infection. (4) Combating symptoms by local treatment when necessary. (1) Whenever mercury is prescribed, the mouth should be kept clean, which will usually prevent salivation. The common combinations in pill form of mercury and opium are objected to, as too strong in both ingredients; all internal medication is inferior to inunction, which notwithstanding its cosmetic disadvantages, is of great value (*To be continued*).

REVISTA DE MEDICINA Y CIRUGIA PRACTICAS

October 7, 1903.

1. Rapid Cure of Sciatica by Injections of Pure Oxygen,
By D. JOSÉ CODINA CASTELVI.

1. Cure of Sciatica.—Castelvi has used subcutaneous injections of pure oxygen in five cases, with excellent results. The author gives a detailed description and illustration of the apparatus used. Injections of from 200 to 1,000 c. c. of the gas were made in the gluteal region of the affected side; the injections being repeated daily till all pain subsided. This result was accomplished in from one to

five treatments. The immediate effect of each injection was the subsidence of pain either in the whole course of the nerve or over an area extending considerably beyond the limits of the injected part. Alleviation of pain was experienced in many instances during the injection. No discomfort was experienced by the patients so treated and the gas was quite rapidly absorbed. In some cases the pain permanently disappeared after one injection.

RIFORMA MEDICA.

July 29, 1903.

1. On the Histological Alterations Induced in Tissues by Organic Extracts and Cystotoxic Serums (*To be continued*), By C. CAFIERO.
2. Professor Tansini's Contribution to the Surgery of the Abdomen (*Concluded*), By G. PALLERONI.
3. On the Pathogenesis of Postoperative Hæmatemeses (*Concluded*), By C. TONARELLI.

2. Laparotomies.—Tansini's work, as reported by Palleroni, embraced 131 laparotomies; most for tumor extirpation; a few for exploration. Total mortality, nine per cent.; but on examining the table of cases this mortality appears attributable almost entirely to myomohysterectomies, that of operations on other organs not exceeding one per cent. These excellent results are ascribed by Palleroni to very careful diagnosis and to perfect technics. Tansini advocates the use of a clamp over the nose to prevent reflex irritation during the first stage of anæsthesia. He favors the administration of the anæsthetic in full doses at first, and then, when the patient is under a very light narcosis. The galvanocautery knife is a favorite instrument in the hands of Tansini, and he secures asepsis by a small incision, by extraperitoneal methods wherever possible, and by the avoidance of injury to the tissues handled. He uses the dry method of operating, and does not favor the use of antiseptic or aseptic fluids for irrigation. He rarely uses drains.

3. Postoperative Hæmatemesis.—Tonarelli reports two cases. One of these patients was a man, aged forty years, with echinococcus cysts of the liver, for which laparotomy was performed; the other, a woman, aged forty-two years, who had been suffering from gallstones. In the first, the hæmatemesis began five days after the operation, in the second, one day after. Both patients died, autopsy being obtained in only one case; in this the hæmorrhage was found to affect the entire substance of the stomach. In explaining the hæmorrhagic tendency in these cases, the author suggests that it may have been due to retention of bile. He does not connect the hæmorrhages in these cases with alterations in the vessels of the omentum, such as thrombosis or embolism, due to injury or accidental ligation, etc., during the operation; nor is chloroform anæsthesia responsible. Hayem's case, in which absorption of bile from the peritonæum gave rise to a hæmorrhagic tendency, is analogous to the present cases, only that in these cases it was the retention of bile in the blood, that acted in the same way. In one patient this gave rise to a severe jaundice. It is possible, also, that traumatism to the nerves of the omentum and peritonæum, and to the sympathetic vasomotor nerves may have had something

to do with disturbing the equilibrium of circulation and producing the hæmorrhage. The true cause of such postoperative hæmorrhages is still a matter of doubt.

August 5, 1903.

1. Hydrochloric Acid, Pepsin, and Rennet, in Diseases of the Stomach After the Administration of Various Drugs (*To be continued*), By D. PIRRONE.
2. Studies on Vaccine, By O. CASAGRANDI.
3. Experimental Contribution to the Surgery of the Gall-bladder, Resection and Plastic Operations, By L. BALDASSARI, and A. GARDINI.
4. On the Histological Changes Induced in Tissues by Organic Extracts and Cytotoxic Serums (*Concluded*), By C. CAFIERO.

2. **Studies on Vaccine.**—Casagrandi thinks that the presence of some pyogenic germ has something to do with the production of immunity in a vaccination pustule. Santori found that when active vaccine was filtered through retort carbon or porous porcelain, it contained spherical bodies larger than the ordinary sarcinæ, spherical and highly refractive. Casagrandi thinks that these bodies, which have been taken for protozoa, are nothing but the spores of a common streptothrix, which is often found in vaccine pustules. He passed samples of vaccine (which could produce a reaction in the form of pustules in animals and of Guarnieri's phenomenon in the cornea of rabbits), through filters used for excluding the smallest forms of bacteria, and then injected these filtrates into the corneæ of rabbits without obtaining a reaction or producing pustules on inoculation to dogs. To make sure that the exclusion of germs prevented this vaccine from acting, he inoculated several series of dogs first repeatedly with filtered pressed inactive vaccine not containing any germs, and after the local lesions of inoculation had healed, he inoculated into the same dogs some very active unfiltered vaccine. With neither the filtered nor the unfiltered vaccine were pustules developed in any of the animals. In check animals, however, repeated inoculations were made with an inactive filtered vaccine three or four years old which did not even affect the corneæ of rabbits. In these controls the subsequent inoculation of active vaccine produced pustules. This means that a dog can be immunized against the effect of active vaccine by repeated injections of filtrates of active pressed vaccine devoid of any germs, while animals subjected to repeated injections of inactive vaccine in filtered form are not immunized against inoculations of vaccine active in the controls. Human beings are not immunized by inoculation of these filtrates, for pustules are produced in them after such preventive inoculations on vaccinating them with active virus. A vaccine which is filtered or diluted with glycerin and water does not confer immunity from active vaccine in man. In dogs another peculiar fact was that if the active vaccine was inoculated before the lesion produced by the inoculation of the filtered vaccine had healed, there was pustulation. The same was true if both the filtered and the unfiltered vaccines were injected simultaneously with a staphylococcus derived from a vaccine pustule.

PRAKTITCHESKI VRATCH.

July 5, 1903.

1. A Case of Idiopathic Convulsions of the Right Hand, By A. M. VIRSHUBSKI.
2. Report on 292 Lithotomies (*To be concluded*), By I. KH. DZIRNE.
3. A Case of Congenital Atrophy of the Pectoralis Major on the Right Side. Abscess of the Mammary Gland (*Concluded*), By D. ZEILINGER.

3. **Atrophy of the Pectoralis Major and Absence of the Mammary Gland.**—Zeilinger reports a case of congenital anomaly of the muscles of the right side of the chest in a boy aged eighteen years. The right nipple and its surrounding areola were entirely absent. The subcutaneous tissue was moderately well developed; the muscles of the neck were enlarged; and those of the left chest were very well developed. The mammary gland on the left side was enlarged, but on the right side the ribs were clearly outlined under the skin, and on palpation it was found that the large pectoral muscle was rudimentary. The right deltoid and the entire upper extremity on that side was less well developed than on the left side. In the same patient there was also hypospadias, and the urethra, the opening of which was on the lower side of the sulcus behind the glans penis, was anomalous in its position in the penis. A catheter introduced into the opening showed that the urethra was immediately under the skin at the lower surface of the penis and that it did not go through the penis in any part of its course.

ROUSSKY VRATCH.

August 30, 1903.

1. On the Alexines in Relapsing Fever, By A. A. MELKIKH, and I. V. KALIAPINE.
2. On the Latest Method of Operative Treatment of Cancer of the Uterus (with a Report of 20 Laparotomies), By M. A. STRAUCH.
3. A Case of Multiple Sclerosis, with Predominating Psychical Derangements, or Possibly Westphal's Pseudosclerosis, By I. F. KAPLAN.
4. Floating Liver in Connection with Heart Disease, By M. I. STERN.

1. **Alexines in the Blood in Relapsing Fever.**—Melkikh and Kaliapine conclude a study of the quantitative relations of the alexines in the blood of malarial patients by agreeing with Goussieff, that the amount of alexines is not dependent upon the number of white cells in the blood. Goussieff elaborated a method of determining the amount of alexines in the blood. He first obtained a definite amount of red cells, carefully washed, from a rabbit, and saturated them in each instance with the same amount of the same fixator (sheep's serum rendered immune against the rabbit's red cells). To this mixture he added a certain amount of blood serum from the patient under study. The amount of hæmoglobin dissolved by this blood from red cells of the rabbit was proportional to the amount of alexines contained in the specimen, and this amount of hæmoglobin could be determined by the photo spectrometer. Melkikh and Kaliapine found, on employing essentially the same method of relapsing fever, that

the amount of alexines in the serum increased in all cases during the paroxysms, and decreased during the apyretic period. With the onset of convalescence the amount of alexines is markedly increased. The leucocytosis, however, is not in proportion to the amount of alexines, for the curve of leucocytes keeps parallel to the curve of the alexines until the period of convalescence, when the leucocytes become normal, while the alexines increase very markedly.

2. New Method of Operating for Cancer of Uterus.—Strauch describes the following method of operating for cancer of the uterus, of his own devising, basing his ideas upon Peiser's investigations, who showed that the lymphatic glands of the pelvis, etc., connected with the uterus were involved in cases of cancer and that recurrences of this disease after its removal from the uterus or after hysterectomy even, were due to these glandular metastases. The operation consists of removing the growth from the vagina, and cauterizing the base or the funnel of uterine tissue remaining with the Paquelin cautery. Then the patient is placed in the Trendelenburg position, and a laparotomy performed; the uterus is seized with Museaux forceps and raised high. Hysterectomy is then performed, and the posterior portion of the stump of the vagina is sewed to the posterior leaf of the peritonæum. The latter is raised laterally, separating the cellular tissue in the remains of the broad ligaments and searching for the glands along the obturator nerve and the internal inguinal ring, and also backward along the great pelvic vessels, removing all the glands in sight, whether diseased or not. The pelvis is drained through the vagina by means of iodoform gauze, the peritoneal toilette is made, and the wound closed. Strauch's patients made good recoveries and the mortality was very small.

4. Floating Liver in Heart Disease.—Stern describes a case of heart disease in which there was a displaced liver due to the venous stasis produced by the cardiac affection. The relationship between heart lesions and displaced or movable liver had not been noted until Bruschini, of De Renzi's clinic, called attention to it. Stern believes that his case was an instance of this relationship. Bruschini does not think that these displacements of the liver in heart disease are accidental, but asserts that there is a special type of displaced liver, namely, due to stasis as the result of heart disease. He distinguishes two forms of this affection: (1) Cases in which there are signs of stasis resulting from heart disease, which displace a liver that had already been displaced, but grew heavier with the increased congestion. (2) Cases in which the liver was not primarily displaced, but moved downward when the stasis set in.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

October 31, 1903.

1. Talma's Operation in Cirrhosis of the Liver,
By M. L. HARRIS.
2. The Restoration of the Perinæum,
By HENRY O. MARCY.

3. The Repair of Cystocele by Utilization of the Anatomically Fixed Points in the Anterior Vaginal Wall,
By E. REYNOLDS.
4. Repair of Lacerations of the Cervix Uteri. An Investigation as to the Proper Time for the Operation,
By DANIEL H. CRAIG.
5. Acute General Staphylococcus Infection Through the Puerperal Breast,
By W. P. MANTON.
6. The Morphology and Biology of the Parasite from a Case of Systemic Blastomycosis,
By F. J. OTIS, and NEWTON EVANS.
7. Anophthalmos. Report of a Case,
By LAWRENCE R. RYAN.
8. Calcareous Degeneration of Corneal Cicatrices,
By H. MOULTON.
9. Present Status of the Purification of Public Water Supplies,
By GEORGE W. FULLER.
10. Meatotomy Plus Meatorrhaphy,
By JOHN PRENTISS LORD.

1. Talma's Operation.—Harris has performed Talma's operation six times. The first two cases have already been reported. The last four cases are reported in some detail. Of the author's six cases, five patients were dead inside of a month after operation and one was alive, but without improvement five months after operation. The five cases in which death occurred were undoubted cases of alcoholic cirrhosis; the patient that was living at the end of five months was in all probability a case due to syphilis. All the cases were far advanced when operation was resorted to and none of them were favorably influenced by the operation. The author concludes that the benefits to be derived from Talma's operation in alcoholic cirrhosis, even under favorable conditions, are temporary. In order to obtain the full benefit of the operation it should be performed early, if possible before the appearance of ascites. If jaundice or symptoms of cholæmia are present cholecystotomy should supplement Talma's operation.

4. Repair of the Lacerated Cervix.—Craig devotes his paper to the consideration of the proper time during which to repair lacerations of the cervix. His conclusions are: (1) Immediate repair of the cervix is indicated only in exceptional cases aside from the control of hæmorrhage. (2) Mediate repair (during continuance of lochia) is contraindicated, except it be in some unusual case. (3) Secondary repair is indicated as soon as symptoms are definitely due to the laceration, such symptoms failing of relief by palliative measures or recurring after apparent palliative cure. Operation should be prompt, not necessarily early. (4) Operations on women past thirty-five give better permanent results than in younger women. (5) Repair of the cervix is indicated as prophylactic of malignancy in a woman approaching the cancer age if the cervix manifests locally evidence of cellular irritation, whether or not causing subjective symptoms. (6) Lacerations in which operation is not indicated should be kept under close observation as the cancer age approaches. (7) Obstetricians are obviously unable to avoid lacerations of the cervix in many cases, but if the above deductions are correct a far more strict asepsis will, by favoring spontaneous primary union of such lacerations, do much toward

lessening the number of secondary tracheloplastic operations.

10. Meatotomy Plus Meatorrhaphy.—Lord, after meatotomy, sutures the mucous membrane of the urethra to the surface of the glands. The following advantages are claimed for this simple procedure: (1) Much time is saved when the meatotomy is performed as a preliminary to the employment of the urethroscope, cystoscope, or segregator. (2) The wound usually heals by first intention and the tedious process of granulation is thus avoided. (3) No after treatment is needed, the patient being thus saved much discomfort and pain and the surgeon unnecessary responsibility.

AMERICAN MEDICINE

October 31, 1903.

1. The Dietetic Treatment of Chronic Nephritis, By J. M. ANDERS.
2. The Technic of McGraw's Method of Gastroenterostomy (*Illustrated*), By SAMUEL LLOYD.
3. Successful Intraneural Infiltration of the Median and Ulnar Nerves During an Operation for Dupuytren's Contraction of the Fingers, By W. W. KEEN.
4. Digestion of Milk, By GEORGE RICHTER.
5. Mercury: Its Administration Hypodermically in Syphilis, By WM. F. BERNART.
6. Volvulus of the Stomach, By C. D. SPIVAK.
7. Multiple Visceral Lesion, By A. L. BENEDICT.

1. The Dietetic Treatment of Chronic Nephritis.—Anders asserts that the drug treatment of chronic nephritis is likely to do good, only in those cases which are primarily due to syphilis, malaria, or chronic suppuration. It is for this reason that diet is of paramount importance in the treatment of this class of kidney lesions. The author is, in a general way, in favor of a mixed diet. It is necessary to determine not only what the patient should take, but, what is more important, what he can take. The danger of starving the patient, in an attempt to keep down the quantity of albumin, must be borne in mind. Frequent blood examination will best show the development of anæmia. The author does not believe that white meat is more injurious than red meat. He is in favor of allowing the patient with chronic Bright's a liberal supply of fluid. Yet it must be borne in mind that such patients suffer from high arterial tension and that an excess of fluid tends to increase the blood pressure. The gist of the author's teaching seems to be that each case must be treated as a separate entity and that rule-of-thumb dietetics is always out of place.

2. McGraw's Elastic Ligature.—Lloyd considers that the McGraw elastic ligature method is feasible for gastroenterostomies and enteroenterostomies in cases in which the lesion that calls for operation is situated in the stomach. The method is not applicable, in the author's judgment, in cases of enteroenterostomies necessitated by a complete intestinal obstruction. In cases of partial obstruction it is perhaps available, though the author would prefer to use a Murphy button or do a direct lateral anastomosis by suture. Lloyd has employed the method seven times; six times successfully but in the seventh case the rubber ligature broke and the operation was performed by the suture method. The

technics of the method is carefully described and adequately illustrated.

4. The Digestion of Milk.—Richter's paper, besides treating of the digestion of milk, considers its preservation. The author seems to favor the addition of antiseptics to milk, in order to keep it from spoiling. His argument is twofold: (1) The ordinary antiseptics used are not injurious, and even an accidental overdose of an antiseptic could not possibly be so harmful as infected milk. (2) It is impossible uniformly to obtain pure milk, and experience has shown that the infant mortality is lower when antiseptics are used in milk than where reliance is placed in the enforcement of the most stringent milk inspection laws.

5. The Hypodermic Use of Mercury.—Bernart considers the various ways of giving mercury. He concludes that the hypodermic use of mercury in syphilis will lead to the following results: (1) The cure of those cases of syphilis that are at present known as the "intractable forms of syphilis." (2) The treatment of syphilis will be put on a more scientific basis. (3) The nervous lesions of syphilis will become more amenable to treatment.

6. Volvulus of the Stomach.—Spivak finds that there is such a condition as volvulus of the stomach. It has so far received scant attention in medical literature. The author has, therefore, made a collection of the published cases and reports them in detail. So far eight such cases have been reported.

MEDICAL RECORD.

October 31, 1903.

1. High-frequency Currents, By HENRY G. PIFFARD.
2. Two New Methods of Determining the Digestive Activity of Gastric Juice, By HENRY WALD BETTMANN, and J. HENRY SCHROEDER.
3. A Case of Neurofibroma of the Skin and Large Nerve Trunks in Which There Developed a Large Spindle-celled Sarcoma Beneath the Body of the Scapula, By H. W. AUSTIN.
4. Some Notes on a Diet of Bread and Fruit, and Its Effects on High Blood Pressure, Dropsy, and Obesity, By ALEXANDER HAIG.
5. Hallux Valgus, By JOHN G. SHELDON.

1. High-frequency Currents.—Piffard devotes his paper to the consideration of the three following forms of electrical currents: (1) Morton's "Static-induced current." (2) D'Arsonval's current, or the "High frequency current" of European authors. (3) A form of high frequency current, generated by means of the author's hyperstatic transformer, which differs from the D'Arsonval current by its higher voltage. Various forms of apparatus devised by the author are described and illustrated. This article will be found of interest, chiefly, by those who are engaged in giving electrical treatment.

2. The Activity of the Gastric Juice.—Brettmann and Schroeder assert that the activity of the gastric juice does not always run parallel with the amount of HCl secreted. It is, therefore, important at times to estimate the quantity of pepsin secreted. Up to the present time only two available clinical methods have been proposed for the de-

termination of pepsin, that is, the methods of Mette and Hammerschlag. Neither of these two methods is entirely satisfactory. The authors, however, describe them in detail and then proceed to the explanation of the two methods they propose: (1) The first method requires a very brief time and no apparatus and is fairly accurate. (2) The second method requires several hours and complicated apparatus. It is a very accurate method and in the opinion of the authors "is the best method yet devised for very exact clinical or scientific work with human gastric juice." Both of these new methods are too complicated to admit of accurate description in a few words. Those interested in the subject are referred to the original communication.

4. Bread and Fruit Diet.—Haig recommends a bread and fruit diet as specially serviceable in all those conditions seen "in the collæmic or high-blood-pressure group of uric acid food poisonings." The washing-out plan of treatment is the height of folly. A dry diet is indicated. The author asserts that twenty-one ounces of bread stuffs and seven ounces of dried fruits will be the amount and quality of food required in the twenty-four hours. The blood pressure on this form of diet may easily be reduced by twenty to forty millimetres of mercury in a short time and the patient's symptoms will disappear or be greatly relieved.

November 7, 1903.

1. Surgical Interference in Hypertrophic Biliary Cirrhosis of the Liver, By DR. JULIUS ROSENSTIRN.
2. Filariasis in Puerto Rico, By BAILEY K. ASHFORD.
3. Treatment of Cancer of the Uterus, By I. L. WATKINS.
4. Investigation of Rinderpest, By J. A. GUTHRIE.
5. Some Practical Points Taught by the Discovery of B. *Dysenteriae* in the Stools of Infants Suffering from Summer Diarrhoea, By LOUIS M. WARFIELD.
6. Hæmospermia, with Report of a Case, By ARTHUR L. CHUTE.

1. Surgical Intervention in Hypertrophic Biliary Cirrhosis of the Liver.—Rosenstirn reports two cases of biliary hypertrophic cirrhosis of the liver which recovered in consequence of operation. In the first cases the operation was accidentally undertaken, that is, it was due to a mistaken diagnosis. The result in this first case was so satisfactory that operative intervention was deliberately undertaken in the second case. The operation the author recommends for this condition consists in sewing the omentum, gall bladder, and liver to the parietal peritonæum. The author advances a tentative theory to account for the favorable results observed. The operation is in itself comparatively harmless and, in the author's opinion, deserves a further trial.

2. Filariasis in Puerto Rico.—Ashford reports twenty-nine cases of filariasis observed by him in Puerto Rico and summarizes the facts which they teach as follows: (1) Twelve per cent. of the mounted battalion of the Puerto Rican Provisional Regiment of Infantry present circulating embryos of *Filaria nocturna*. (2) Presumably there is approximately a similar percentage among the people of Puerto Rico at large. (3) All but three of these soldiers have presumptive history of filarial disease before entering the service. (4) In five cases there

is strong presumptive proof of the disease in the families of these men. (5) All were thoroughly exposed to mosquitoes in closely crowded towns before infection. (6) All are young men. (7) Most have been three years in the service without serious illness. (8) They come from all parts of the island. (9) All, save four, have had attacks of inguinal or femoral adenitis with chill, fever, pain, and a red line on the inner aspect of leg and thigh at varying intervals. (10) Six have had chyluria.

3. Cancer of the Uterus.—Watkins reviews the history of the various operations that have from time to time been suggested for the relief of cancer of the uterus. The very number of such operations shows how unsatisfactory most of them are. The author is of opinion that recovery from cancer following operation does not occur in more than from three to five per cent. of all cases. Two things are imperatively required. (1) Distinction between operative and non-operative cases should be made with more exactness. (2) Diagnosis of cancer of the uterus should be made much earlier than it is at present.

4. Rinderpest.—Guthrie has had the opportunity of studying rinderpest at first hand at Shanghai. His paper is very brief and merely outlines some of the problems connected with the disease. There is great confusion in the minds of many as to the nature of rinderpest. It is best described by stating that the disease, which only affects cloven-footed animals, corresponds almost completely to acute dysentery in the human being.

MEDICAL NEWS

October 31, 1903.

1. Speculative Investments for Physicians.
2. On the Production of Specific Cytolytic Sera for Thyroid and Parathyreoid, with Observations on the Physiology and Pathology of the Parathyreoid Gland, Especially in Its Relation to Exophthalmic Goitre, By W. G. MACCALLUM.
3. Skin Lesions Associated with Rapid Growth of Long Bones, Lineæ Albicantes. (*Les vergetures de croissance*. Jules Comby), By W. P. NORTHRUP.
4. Caffeine in the Treatment of Alcoholic Toxæmia, By ARTHUR J. HALL.
5. A Case of Chronic Lymphatic Leucæmia without Enlargement of the Lymph Nodes, By GEORGE BLUMER, and HERMON C. GORDINIER.

2. Thyreoid and Parathyreoid Glands.—MacCallum's paper recounts in detail a number of experiments conducted upon animals for the purpose of (1) producing a specific cytolytic sera, and (2) better to establish our knowledge of the physiology of these two glands. (1) Gontscharukov asserted, in 1902, that certain experiments he had performed probably indicated the existence of a specific antithyreoid toxine. MacCallum asserts that his own experiments throw considerable doubt upon the results obtained by Gontscharukov. It would seem that a cytotoxine capable of destroying the cells of either the thyreoid or parathyreoid glands, *in situ*, has not yet been produced. (2) It is not possible even to indicate the nature of the author's experiments in this second part of his study. About the only conclusion that can be drawn is that the thyreoid gland has a

definite and marked influence upon metabolism and that the function of the parathyreoid is directed to a different purpose, and is not specially concerned with metabolism. As to what relationship exists, if any, between absence or destruction of the parathyreoids and exophthalmic goitre, it is impossible to say.

3. Skin Lesions Associated with the Rapid Growth of Long Bones.—Northrup has at times noticed about the knees certain scars which resemble closely the lineæ albicantes, which can be seen on a parturient woman's abdomen. He did not understand their meaning until reading a book by Jules Comby, in which similar lines are described and the following explanation given of their origin: "It is not rare to see a child present, as result of typhoid fever, a rapid and excessive growth. Such growth shows itself sometimes, besides elongation of the skeleton, in cutaneous welts (*vergetures*), having for their location the knees, and may occupy also other parts of the body." The author asserts that it literally seems that in some cases the skin cannot keep up with the growth of the bones, and thus the frayings result. The following description is given of the lesions: "They also are parallel, one just above the other, three or four in number. The lesions appeared as large, intensely reddish or bluish welts raised above the surface. Apparently they remained stationary for a number of years, the evolution into the present whitish flat scars having been a very gradual one." Four illustrations from photographs accompany the paper.

4. Caffeine in Alcoholism.—Hall considers that caffeine is almost a specific in alcoholic toxæmia. He asserts that this drug, in doses of one to two grains every one, two, or three hours, will usually, in from twenty-four to forty-eight hours, quench the thirst or craving for alcohol to such an extent that the most confirmed habitués will voluntarily abandon its use. Four cases are reported which seem to uphold the author's contention.

5. Chronic Lymphatic Leucæmia.—Blumer and Gordinier report one case of lymphatic leucæmia including the case history and autopsy protocol. They then review some of the best known theories as to the origin of the disease, and summarize their own views of its ætiology as follows: "We would therefore suggest that while myelocytic leucæmia is invariably a disease of the bone marrow, lymphocytic leucæmia may be a disease either of the lymphatic apparatus or the bone marrow, or both, and we would further express the belief that specific differences exist between the blood picture of the different forms."

November 7, 1903.

1. Mastoid Disease and Extradural Abscess,
By SEYMOUR OPPENHEIMER.
2. Precipitins and Their Medicolegal Use (*To be continued*),
By JAMES EWING, and ISRAEL STRAUSS.
3. A Study of Immunity. Ehrlich's Side-chain Theory,
By F. M. POTTENGER.

4. Report of a Case of Acute Glaucoma Incited by the Use of Euphthalmine for Diagnostic Purposes,
By HENRY W. RING.
5. Circular Laceration of the Cervix Uteri,
By HUGH CROUSE.

1. Mastoid Disease and Extradural Abscess.—Oppenheimer insists that a distinction should be made between a true epidural abscess, that is, a collection of pus localized and confined between the inner osseous wall and the brain membranes, and the so-called extradural suppurations that are more or less frequently found during an extensive mastoid operation, where the dura is in part exposed and forms a portion of the inner wall of the purulent cavity in the mastoid. Epidural abscess is the most frequent intracranial complication of mastoid empyema and it may lead to sinus infection. The two most frequent sites for pus accumulations are, in the order of their frequency, the posterior fossa near the vertical portion of the groove for the lateral sinus, and the middle fossa on the superior surface of the osseous tissue forming the roof of the antral cavity. There are but few characteristic symptoms of the condition. The condition should be suspected if with mastoid symptoms the existing aural discharge suddenly becomes less, or cease entirely, and the patient shows signs of meningeal irritation. The two most constant signs of epidural abscess are, perhaps, continuous headache, often localized, and slight elevation of temperature. In doubtful cases it is best to do the regular mastoid operation and then, if there are any signs of epidural abscess, the scope of the original operation may be extended. The prognosis is as a rule favorable if the abscess be recognized moderately early and the patient consents to operation.

5. Circular Laceration of the Cervix Uteri.—Crouse reports two cases coming under his observation. The first occurred in a woman, thirty-six years old, who had already given birth to six children. This case, the author believes, was due to internal and external violence. The second case occurred in a woman, thirty years of age, who had given birth to three children. In this case the author believes that the laceration was primarily due to an unyielding scar left by a vaginal myomectomy that had been performed during the fourth month of pregnancy.

BOSTON MEDICAL AND SURGICAL JOURNAL.

November 5, 1903.

1. On Gastric Tetany,
By B. G. A. MOYNIHAN.
2. A Study of Pathological Fermentation in the Stomach,
By HENRY F. HEWES.
3. Internal Medicine, to What Extent Required or Elective in the Medical Course?
By S. G. BONNEY.
4. Observations on the Iodine Reaction in Children,
By CHARLES HUNTER DUNN.

1. Gastric Tetany.—Moynihan does not think it is advisable to restrict the term gastric tetany to only the very severe cases, that is to those that nearly always result fatally. He asserts that the distinction made at times between gastric tetany and tetanoid spasms associated with, and dependent upon, gastric dilatation is arbitrary and irrational. After this explanation the author proceeds to discuss the ætiology, symptomatology, pathology, and treatment of gastric tetany. The treatment is either

medical or surgical. Medical treatment will rarely or never be curative. It consists in thoroughly washing the stomach and attending to the diet. The final and really curative treatment of tetany is surgical. This will be readily conceded if one remembers that the ultimate cause of tetany is nearly always obstruction to the outward passage of food from the stomach. The treatment of tetany, therefore, resolves itself into the relief of the obstruction. In simple cases gastroenterostomy will be the operation of choice. In malignant cases a gastrectomy (partial) or gastroenterostomy must be resorted to. In hour glass stomach gastrogastrostomy combined with gastroenterostomy, performed in the distal pouch will, as a rule, be the suitable operation.

2. Fermentation in the Stomach.—Hewes reports some experiments he has conducted for the purpose of determining the bacteriological basis of some forms of stomach fermentation. The stomach contents of a man suffering from pyloric obstruction were studied chemically and bacteriologically. The abnormal products of digestion were noted and the various forms of bacteria were cultivated in pure culture. These bacteria were subsequently added to sterile media resembling in composition ordinary food products and the result noted. It was found that practically the same kind of fermentation occurred in the inoculated test tubes as had occurred in the man's stomach.

4. The Iodine Reaction.—Dunn reports a series of experiments undertaken to determine whether the iodine reaction in disease in children corresponds with that of similar conditions in the adult. The technics of the reaction has been described by Cabot and Locke in the *Journal of Medical Research*, 1902, Vol. vii, No. 1. The author presents the following summary of his work: (1) The reaction is always present in the following conditions: Lobar pneumonia, bronchopneumonia, cerebrospinal meningitis, influenza, empyema, suppuration (non-tuberculous), and was found present in single cases of appendicitis, diphtheria, and starvation. (2) The reaction is usually present but may be absent in cases of typhoid fever, and miliary tuberculosis. (3) The reaction may be absent or present in anæmia. (4) The reaction is usually absent but may be present in nephritis, cardiac valvular disease and tuberculosis. (5) The reaction is absent in pleurisy with effusion, functional indigestion, rhachitis, articular rheumatism, congenital cardiac disease, chorea, infantile atrophy and was found absent in single cases of bronchitis, eczema, purpura, urticaria and scorbutus.

LANCET.

October 24, 1903.

1. The Study of Structure in Relation to Function,
By W. H. ALLCHIN.
2. On the Effect of Perforation of the Colon by Small Foreign Bodies, Especially in Relation to Abscess of an Epiploic Appendage,
By J. BLAND-SUTTON.
3. The Correction of Hereditary Tendencies,
By SIR S. WILKS.
4. On the Use of Pure Carbolic Acid in the Treatment of Smallpox,
By A. E. BRINDLEY, and F. W. BONIS.
5. Three Cases of Erythema Exsudativum Multiforme.
By R. CRAWFORD.

6. A Simple Method of Performing Intestinal Union,
By A. MACLENNAN.
7. On the Value of Saline Infusion in the Treatment of Enteric Fever,
By D. G. MARSHALL.
8. The Value of Blood Examinations in Abdominal Diseases,
By C. J. N. LONGRIDGE.

2. Abscess of An Epiploic Appendage.—Bland-Sutton calls attention to the fact that small foreign bodies may penetrate the wall of the colon, enter the fat of an epiploic appendage and there set up abscess formation. Such abscesses may attain quite a large size, are very hard, and may present all external appearances of a malignant growth. It is possible that some of the reported cases of disappearance after operation of an abdominal malignant growth, come under this head. The author reports two cases. In one the tumor was recognized at operation as an enlarged and inflamed epiploic appendix; it was opened, and a sharp pointed foreign body removed. In the second case the tumor was regarded as cancer of the colon and a wide colectomy performed. In opening the resected lump, there was found a round pill-like body lodged in a smooth-walled cavity. The globular body had a fragment of straw for its nucleus. Ordinarily such foreign bodies are surrounded by fæces and so pass safely through the intestine.

4. Carbolic Acid in Smallpox.—Brindley and Bonis report the results obtained by them in the treatment of smallpox by applications of pure carbolic acid. The pure acid in a liquefied state is applied to the vesicles over a limited area with a small camel's hair brush, the application being made on successive days. On the first day the face and neck are selected for treatment, on the following day the hands and arms, then the lower extremities, and, finally the trunk. The vesicles rapidly shrivel up and scab over. One of the most striking results is the comparative mildness of the secondary symptoms or those coincident with the maturation of the pustules. In many of the patients the temperature remains at a low level. With regard to the subsequent pitting the carbolic treatment is decidedly beneficial in lessening disfigurement, although it is not to be relied on as a certain preventive. The use of the germicide tends to diminish the risk of infection from aerial convection and to remove the disagreeable odor of the disease. The total number of cases treated was 35, of which 22 were of a severe kind, mostly confluent, more than half of these being in unvaccinated subjects. Five of the cases proved fatal, 2 of which were children suffering from scarlet fever, while a third was one of malignant smallpox.

5. Erythema Multiforme.—Crawford reports in detail three cases of erythema exsudativum multiforme occurring in boys aged respectively 16, 14, and 10 years. All three cases, by virtue of the marked gastrointestinal crises, would be commonly termed Henoch's purpura. In the most constant symptoms of the disease—in the skin lesions, in the articular and circumarticular effusions, and in the abdominal crises—we are dealing with blood or serum extravasations. So that it is almost certain that the condition is a toxæmia which, like that of scarlet fever, spends itself with varying force on the skin, kidneys, heart, and joints, and which in its

cutaneous features presents a marked symmetry. Blood cultures were negative in all three cases.

6. Intestinal Union.—MacLennan's method of performing intestinal union consists of the use of a special bone bobbin to which the ends of the intestine are ligatured, and a rubber ring (umbrella ring). After the ligaturing is performed the bobbin is so manipulated that the ring secures both intestinal ends to the bobbin. Eventually bobbin, ligatures, and ring all come away inside the lumen of the gut, leaving a smooth union, to effect which no suturing has been employed.

7. Saline Infusion in Typhoid.—Marshall reports a case of typhoid fever occurring in a woman aged twenty-five years, which shows the benefit to be derived from saline infusion, not only after hæmorrhage but in severe cases when during the third week of the disease the patient is in danger of dying from heart failure. As a proof that with ordinary precautions, there is little risk of local trouble, it may be noted that in this case, although it was carried out five times (almost a gallon of fluid being injected) there was never at any time the least sign of irritation at the site of injection.

8. Blood Examinations.—Longridge describes the technique of blood examinations, and the various cells to be observed and counted. From his observations he concludes that a leucocytosis cannot be regarded as an absolute and infallible indication of the presence of pus, but as an indication of toxæmia its value is great. An increasing leucocytosis is, other things being equal, the most scientific means for gauging the increasing virulence of an appendicular infection.

BRITISH MEDICAL JOURNAL.

October 24, 1903.

1. The Study of Structure in Relation to Function,
By W. H. ALLCHIN.
(Seventy-first Annual Meeting of the British Medical Association).

Section of Medicine.

2. Discussion on Medical Inflammations in the Cæcal Region, By P. M. CHAPMAN, H. W. KING, and Others.
3. On the Importance of Accurate Muscular Analysis in Lesions of the Brachial Plexus,
By W. HARRIS, and V. W. LOW.
4. The Physical Examination of the Upper Regions of the Chest,
By E. L. JONES.
5. Discussion on the Treatment of Gastric Ulcer,
By T. D. GRIFFITHS, H. D. ROLLESTON, and Others.
6. Discussion on Susceptibility and Infection,
By R. J. M. BUCHANAN, and Others.
7. The Treatment of Pulmonary Tuberculosis by Formaldehyde
By D. I. CHOWRY-MUTHU.
8. Case of Bronzed Diabetes,
By G. PARKER.
9. Spinal Puncture in Uræmia,
By D. C. McVAIL.
10. The Comparative Value of Oral and Rectal Temperatures in the Study of Pulmonary Tuberculosis,
By T. N. KELYNACK, and S. R. WILLIAMS.
11. The Mineral Waters of Llangammarch Wells,
By W. B. JONES.

Subsection of Electrotherapeutics.

12. Discussion on the Results of Treatment of Malignant Disease by Electrical Methods,
By L. JONES, J. HALL-EDWARDS, and Others.

13. Discussion on the Treatment of Tuberculous Disease by Electrical Methods,
By C. WILLIAMS, J. BOLTON, and Others.
14. Some Points in Practical Muscle Testing,
By W. S. HEDLEY.
15. Use of Electricity in the Treatment of Affections of the Digestive Organs,
By G. HERSCHELL.
16. The X Rays as a Diagnostic Agent in Pulmonary Conditions,
By J. S. BOLTON.
17. High Frequency Currents in the Treatment of Some Forms of Deafness,
By J. C. FERGUSON.
- Section of Psychology.
18. Discussion on the Pathology of General Paralysis of the Insane, By W. F. ROBERTSON, R. JONES, and Others.
19. Cavities in the Cord,
By R. G. ROWS.

1. The Harveian Oration.

2. Cæcal Inflammation.—All those partaking in the discussion here reported, agree that the majority of cases of inflammations in the cæcal region are best treated by expectant nonoperative treatment. Savill calls attention to the importance of the preventive treatment of appendicitis, it being often due to a chronic catarrhal or membranous colitis. Saundby states that operation should be insisted on where there is evidence of pus (fluctuating tumor, fever, leucocytosis); where an indolent lump persists, even though pain and fever have disappeared; and in relapsing cases—after the third relapse certainly.

3. Erb's Palsy.—Harris and Low call attention to the importance and necessity of accurate determination of the muscles paralyzed in cases of paralysis of the arm and shoulder as described by Erb and Duchenne, and in infantile paralysis of the upper extremity. These cases have been ascribed to a lesion of the fifth and sixth cervical nerve roots, but the author's observations show that the lesion is probably limited to the fifth root. They therefore suggest section of the paralyzed nerve and suturing it to the sixth or seventh root. The operation has been performed by them in three cases, but as yet with no return of power of motion.

4. Physical Examination of the Chest.—Jones' paper is an excellent summary of the variations in the physical signs presented in health by the apical regions of the chest.

5. Gastric Ulcer.—Griffiths treats all cases of gastric peptic ulcer by giving the stomach absolute rest and by abundant rectal feeding. The ingredients of the enemata may vary widely, but they must be peptonized or peptonizing, and nonirritating. The condition of the tongue and smell of the breath are invaluable guides as to the efficiency and sufficiency of the rectal feeding. The breath of a starving patient has a peculiar, offensive smell. When the rectum is intolerant five to ten minims of laudanum should be added. Nothing should be swallowed for ten days, after which a milk diet is given for five days when solid food may be cautiously resumed.

Rolleston holds that while no food should be given by the mouth for one or two weeks in cases of gastric ulcer, it is unnecessary to give nutrient enemata provided plenty of water is given by the bowel. The pulse must be carefully watched. Iron is a valuable remedy in ulcer when the gastric irri-

tation has subsided. The prevention and treatment of oral treatment is of the greatest importance. Apart from perforation, hæmorrhage is the only acute complication calling for operation. Saundby gives milk and limewater by mouth in small quantities as soon as vomiting ceases, and also a magnesium sulphate and iron mixture. All those taking part in the discussion agreed that chronic gastric ulcer should be treated surgically.

7. Formaldehyde Treatment of Phthisis.—Chowry-Muthu thinks that formic aldehyde is of great value in the treatment of pulmonary tuberculosis. There are three different ways of administration: I. *Inhalation, by means of an oronasal inhaler or by vaporization.* To be efficacious the inhaler must cover the nose and must be continuously worn for as many hours as possible. Oronasal inhalation is simple, protective, and can be carried out at home. The inhalant recommended is as follows: Formalin (40 per cent.), 1 part; chloroform, 1 part; rectified spirit, 2 parts. A few drops of ammonia are added to neutralize the pungency of the vapor. II. *Intravenous injection method.* The author has treated twenty-five cases of phthisis by the intravenous injection of formalin. He commences with 5 c.c. of a strength of 1 in 2,000, increasing to 1 in 1,000. Numbness of the hands and a slight rise in temperature sometimes result, but no permanent ill effects. Many of the patients so treated improved considerably, but in others there was no change. As all of them were having the open air treatment, the formalin may have had no effect. III. *Electrical method.* In this method advantage is taken of the process of electrical osmosis or cataphoresis for the introduction of formaldehyde through the skin. The author has had no personal experience with it. In conclusion he thinks that formaldehyde is of value in those cases where the open air treatment cannot be carried out, the best mode of administration being by means of inhalation.

8. Bronzed Diabetes.—Parker reports a case of bronzed diabetes, occurring in a man aged sixty-five years. In this disease there is not merely diabetes with some discoloration of the skin, but rather a hypertrophic cirrhosis of the pancreas, liver, and spleen, together with an extraordinary deposit of iron pigment in all the organs of the body and some diabetes. In some cases glycosuria does not occur at all, the affection being known as hæmochromatosis. The condition is a toxic one; in bronzed diabetes the toxine causing cirrhosis of the pancreas, leads to an abundant supply of pigment plus sugar, while the same toxine affecting the liver presents the elimination of the pigment; a less extensive cirrhosis may give rise either to pigmentation only or to glycosuria only. The pigmentation is due to loss of power of elimination rather than to abnormal hæmolysis. The hæmoglobin lies where it falls but undergoes a chemical change and answers more easily to iron tests.

9. Lumbar Puncture in Uræmia.—McVail is inclined to believe that the convulsions and coma occurring in connection with albuminuria, are not due to uræmic poisoning, but to increased intracranial pressure. If so, such pressure would obviously be lessened by puncture and drainage of the

spinal arachnoid space. In two cases of uræmic coma, in which about one ounce of spinal fluid was withdrawn by lumbar puncture, there was rapid return of consciousness and restoration to comparative health.

10. Temperature in Tuberculosis.—Kelynack and Williams reach the following conclusions as to the comparative value of oral and rectal temperatures in pulmonary tuberculosis: (1) Temperatures carefully taken in the mouth during rest form a reliable guide in the management of phthisical cases under conditions of sanatorium life. (2) Temperatures taken in the mouth during or shortly after exercise cannot be considered trustworthy, unless registered with such precautions as militate against their general practical applicability. (3) Rectal temperatures during rest generally register higher than oral temperatures, but offer no other advantages of precision or aid in diagnosis. (4) The same applies to rectal temperatures during or shortly after exercise, except that in the non-tuberculous the return to normal is more rapid than in the tuberculous. (5) So that for all practical purposes oral temperatures afford reliable guidance.

11. Causation of General Paralysis.—Robertson advances the hypothesis that general paralysis of the insane is the result of a chronic toxic infection from the respiratory and alimentary tracts, permitted by general and local impairment of the defences against bacteria, and dependent upon the excessive development of various bacterial forms, but especially upon the abundant growth of a diphtheroid bacillus which gives the disease its distinctive character. The evidence in support of this view is as follows: (1) The bone marrow in general paralysis presents severe chronic changes. (2) Rise of temperature, leucocytosis, and digestive disorders all point to a bacterial toxæmia. (3) Severe chronic changes in the alimentary and respiratory tracts of the character of those produced by the prolonged action of bacterial toxins. These consist of proliferative, atrophic, and sclerotic lesions. (4) Direct evidence of general excessive development of saprophytic bacteria. (5) Evidence of the almost constant presence in the respiratory and alimentary tracts, of a bacillus, which in its cultural and morphological characters resembles the Klebs-Löffler bacillus. (6) Evidence that thus diphtheroid bacillus occasionally takes part in a terminal invasion in cases of general paralysis. (7) A filamentous organism, with its individual segments indistinguishable from some forms of the diphtheroid organisms may with considerable frequency be observed in great numbers in the lymphatics of the alimentary tract in general paralysis. (8) When introduced by way of the alimentary tract in the form of broth cultures, the diphtheroid bacillus isolated from cases of general paralysis is capable of producing in the rat a series of morbid phenomena which especially affect the nervous system, and which, when once established, may go on progressively until death results, even though feeding with the cultures is stopped, and the associated changes in the central nervous system have a distinct resemblance to those found in dementia paralytica. (None of those entering into the discussion endorsed the above views as to the aetiology of general paralysis.)

Letters to the Editor.

RADIOGRAPHIC PRINTS.

240 EAST BROADWAY,
NEW YORK, September 16, 1903.

To the Editor,

Sir: In your issue of August 29, 1903, Dr. Sinclair Tousey describes a new method of quickly and simply securing a radiographic print by the use of photo-printing paper primarily for the exposure. The idea is certainly a good one and under certain conditions, especially where an immediate result is desired, the method will find its sphere of usefulness.

About two years ago, among other experimental work in skiagraphy, I practised this method as well as an improvement on it to which I wish now to call the attention of those interested in the subject. I did not report the matter then, as I had not the time to follow up the work sufficiently to satisfy myself of its efficiency. The results obtained were not ideal, and the shading was the reverse of the usually accepted radiograph.

The improvement on this method that I used at the time was the enclosure in the light-proof envelope of a fluoroscopic screen with its sensitive surface in contact with the sensitized surface of the printing paper. The part to be skiagraphed was placed in contact with this envelope, either side up, between it and the tube, as usual. The object of the fluorescent screen in this arrangement was to obtain the photographic effect of the ordinary light ray from the screen, in contact with the sensitive surface, in addition to the direct effect of the x ray.

This method deserves more investigation. Dr. Tousey's article reminded me of it, and I take this means of referring it for further experimentation to those giving more time to the subject.

A. E. ISAACS.

ALCOHOL INJECTIONS IN THE CURE OF ANGEIOMATA.

60 WEST FIFTY-SIXTH STREET,
NEW YORK, October 4, 1903.

To the Editor,

Sir: As additional evidence of the value of alcohol injections in the cure of angeiomata, mentioned in the *Journal* for September 26, 1903, permit me to state that while associated with the late Professor Van Arsdale in his work at the Good Samaritan Dispensary and elsewhere, it was my privilege to see and myself to carry out this method in a number of instances. The records of the dispensary, 1888-1896, show that sixty-seven cases were treated, and all but the largest tumors, where so treated, and when treatment was persisted in, were cured. When applying this plan the following technique must be strictly carried out: (a) Only absolute alcohol should be employed; and (b) injected two to five drops at one point; (c) into the periphery of the tumor itself and (d) at several points during each séance; (e)

at intervals of seven to ten days. This will induce a blanching of the skin in the area injected, with slight burning pain of short duration, and result in a whitened scar smaller than the original tumor. If judiciously handled, nævi of considerable size can thus be cured within three or four months. The injection of too large a number of drops of absolute alcohol at one point will cause sloughing of the skin, but without suppuration or any dangerous symptom. After the injection it is well to cover the nævus with sterile gauze and secure it in place by adhesive plaster.

A. ERNEST GALLANT.

A REQUEST FOR HÆMATOLOGICAL LITERATURE.

1302 MADISON AVENUE,
BALTIMORE, October 24, 1903.

To the Editor,

Sir: Will you kindly allow me space for the following request?

Writers on hæmatological topics are requested to send two reprints of their papers or two numbers of the corresponding journal to the undersigned for purposes of review in the *Folia hæmatologica*. In the place of reprints, authors' abstracts will also be received. These can be published immediately after or coincidentally with the appearance of the original.

CHARLES E. SIMON,

American Editor of the *Folia hæmatologica*.

MERCURY CYANIDE AS A SURGICAL ANTI-SEPTIC.

FARMINGTON, MINN., October 30, 1903.

To the Editor,

Sir: The editorial article by Dr. Charles Greene Cumston in your issue of September 26, 1903, upon Mercury Cyanide as a Surgical Antiseptic, recalls the fact that some eighteen months ago (May, 1902) I published an article upon the same topic, which article was extensively copied throughout the United States. Singularly the conclusions and experiences of Dr. Cumston are identical with mine, and the formula given in his editorial article is practically the same as the one published by me a year and a half ago—drugs and proportions identical. Dr. Cumston has added aniline red to color the solution, and I must protest against this coloring, as it tends to disguise the nature of the discharges when the cyanide solution is used as an irrigating fluid. With this protest I must thank Dr. Cumston for giving added publicity to my formula, which, by the way, has been accepted by manufacturing pharmacists, and the prepared tablets have now been on the market since May, 1902.

RALPH ST. J. PERRY.

Denver Free Hospital for Consumptives.—It is said that Mr. Samuel Grabfelder, during a recent visit to New York, collected over \$5,000 to help establish this institution.

Proceedings of Societies.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

TWENTY-NINTH ANNUAL MEETING, HELD IN MEMPHIS, TENN., ON OCTOBER 7, 8, AND 9, 1903.

The President, Dr. EDWIN WALKER, of Evansville, Ind., in the chair.

The President's Address.—The president urged the necessity of careful, accurate observation in the study of cases and the correct diagnosis of each one as an indispensable requisite to advancement in the profession. Experience was valuable in proportion as it was founded on accurate observation. The practitioner must fit his methods to his needs. When remote from large centres he must evolve his own system. If his practice was large, an assistant or competent nurse should be obtained. It was his belief that in the near future the trained nurse would become a clinical assistant, relieving the busy doctor of many details, such as testing urine, examining stomach contents, and performing other minor manipulations. Physicians would have learned to save time and to apply it to the essentials, leaving the details to others.

The Decision to Operate.—Dr. APMORGAN CARTLEDGE, of Louisville, in the address in surgery, impressed upon both physician and surgeon the eternal fitness of time and opportunity as they related to surgical operations. The first great responsibility in deciding that an operation should be performed rested with the physician, who was keenly alive to the alarm and perturbation his announcement would cause to both patient and friends. Therefore he should be prepared to make such announcement with the greatest clearness and candor, mingled with as much encouragement and hope as the condition would justify. He sounded a note of warning against the too common practice of treating surgical operations as trivial affairs, free from danger and pain. In cancer of the uterus, if seen early, the surgeon should advise complete removal of the organ at once, yet promise very little as to return of the disease, for there was no chapter in the history of malignant disease so gloomy as this. Cancer of the breast was more hopeful, but hopeless enough. In cancer of the maxillary bones he believed it was sound practice to advise an operation in almost every case affecting the lower jaw, and to refuse an operation in almost every case involving the superior maxilla. Next to the uterus, he did not know of a situation in the body where malignant disease was surer to return after operation than in the superior maxillæ. He was convinced that cancer of the alimentary canal was slower of growth and extension than was generally supposed, and that early operations promised much more than was usually credited to them. Surgeons should be slow to decide upon an operation in chronic brain troubles, such as suspected tumors. They should decide quickly upon an operation in cases of compression and infections within the cranial cavity. Time was of more im-

portance in acute peritoneal infections than in lesions elsewhere in the body. The happiest time to operate for intestinal obstruction was when the physician suspected the patient had one of the organic forms of this condition.

The Relation of the Medical Department of the United States Army to the Profession.—Major W. C. BORDEN, of the army, Washington, D. C., delivered an address on this subject. He stated that in the past the relationship between the officers of the medical department of the army and the profession at large had always been close, and thereby the officers of the medical department had kept in touch with the great advances in medicine and surgery which the civil practitioner in time of peace had the greatest opportunity to put into practice.

The Prevention of Heart Disease.—This was the subject of the address in medicine, delivered by Dr. ROBERT H. BABCOCK, of Chicago. The speaker regarded the removal of all chronically diseased tonsils as of the utmost importance in all persons who had once had an attack of inflammatory rheumatism, whether the heart had been damaged or not. If infection could be prevented, cardiac inflammation could likewise be obviated. This statement applied to other affections than rheumatism.

He then mentioned syphilis and gonorrhœa, saying that these diseases sometimes attacked the cardiac structures. Pneumonia, chorea, and scarlatina were sometimes accompanied or followed by acute or chronic endocardial mischief; while influenza or diphtheria might attack the myocardium in an inflammatory way, so as to impair its integrity seriously. Until we could prevent such infections, we could not guard against the cardiac structures being attacked.

The author discussed chronic myocardial diseases, the toxic influence of syphilis, alcohol, and chronic lead poisoning, fatty heart, and particularly cardiac overstrain as it was observed in the young and sometimes in the middle aged and apparently healthy, as the result of excessive physical exertion, and mentioned typical examples of this kind.

The Importance of Medical Organization in Securing and Enforcing Medical Laws.—Dr. T. J. HAPPEL, of Trenton, Tenn., in discussing this subject, stated that when the American Medical Association had drawn into its folds the members of the medical profession who should legally belong to it, there would be no trouble in securing a department of public health, with an officer at its head as a member of the President's cabinet, and reciprocity in medical licensure would no longer be an idle dream. Uniform medical laws could be passed in all the States of the Union, with only such variations as might be demanded by the constitutions or laws of the different States; and then all the requirements could be made so nearly alike for the license to practise medicine, and the examinations made upon such an equal basis, that a license issued in one State would be accepted in another without question.

Medical Organization.—Dr. J. N. MACCORMACK, of Bowling Green, Ky., made some remarks on this subject, and among other things he stated

that it was only a question of time when every State medical society in the Union would adopt the plan of organization of the American Medical Association. The results thus far accomplished were very encouraging. Within the last two years progress had been very rapid in many of the States. For instance, in Michigan the membership of the State Medical Society within one or two years had increased from 490 to almost 2,100; in Kentucky from 300 and some odd up to nearly 1,600. A marked increase had been observed in the membership of other State medical societies.

(To be continued.)

Book Notices.

Erste Aerztliche Hülfe bei plötzlichen Erkrankungen und Unfällen. Bearbeitet und herausgegeben von Professor Dr. GEORG MEYER, in Berlin. Mit 5 Abbildungen im Text. Berlin: August Hirschwald, 1903. Pp. xvi-438.

This book, dedicated to Dr. Esmarch, the founder of the "freiwillige Rettungswesen" in Germany, is compiled for the instruction of those general practitioners and students who volunteer their services in the ambulance stations (Sanitätswachen) of the large German cities. There the first aid to the injured is given, and those patients who have been suddenly overcome by disease are taken, to be transported later to the different hospitals. The lectures contained in this book provide for all such cases of emergency.

The part, First Aid in Injuries, is masterfully written by Ernst von Bergmann, and it reviews all possibilities which may call for immediate attention or surgical intervention. Its perusal is a treat, indeed, as it is full of valuable information. The author dwells at length on the importance of treating the shock properly and of applying correct kind of first dressing in complicated fractures. That the patient may be solely benefited and not harmed, as is often the case, he advises in the strongest and clearest language the simplest means of stopping a hæmorrhage, however it may be caused. In fact, there is nothing omitted in this part that an ambulance surgeon ought to know.

The second part, First Aid in Internal Diseases, by the late Dr. L. Gerhardt, is very short—almost too much so to be of great value. Of course, there are not many diseases or symptoms of disease which require relief from the ambulance physician.

First Medical Aid in Poisoning is very well covered by Dr. O. Liebreich. Professor A. Martin, the well known gynæcologist, offers instruction to the Sanitätswache for the emergencies of pregnancy, labor, and the puerperium. He mentions different diseases of women which may require immediate medical assistance.

Dr. Georg Meyer, in the conclusion, covers the ground of first aid in cases of medicolegal import. He speaks of the diagnosis of death, of the treatment of trance and asphyxia, and of the different methods of reviving the drowned and those asphyxiated by strangulation.

Ambulance Work and Nursing. A Handbook on First Aid to the Injured, with a Section on Nursing, etc. Profusely illustrated, Chicago: W. T. Keener & Co., Pp. 3-304. (Price, \$3.50.)

As an *édition de luxe*, this book would attract attention, and after reading the lofty ideas set forth in the lengthy preface, the impression of a valuable work would be confirmed, but the turn of a very few pages will convince one that the author, who, by the way, is not mentioned in the work, has fallen into the rut of his predecessors.

It is the rightful aim of the author that "first aid" should be universal. This it can never be unless we part company at once with means far more complicated than the physician would apply. It is just this error which is everywhere encountered in these pages. Take the most vital matter of hæmorrhage, for instance. Why not treat this in the concrete as the surgeon does, and say "apply pressure in every instance at the site of bleeding and then a tourniquet," for the layman knows no way to distinguish in the heat of an emergency between the varieties of blood and to exert pressure accordingly. Any further refinements belong to the doctor.

Again, what unwholesome advice to the Samaritan to use adhesive plasters on a highway at the scene of an accident! Such violation of the advanced principles of surgery is followed by the instruction to cover a burn with starch and flour—the worst possible treatment. Surely immersion in water is better than these most readily fermenting agents.

It would seem to us that the teachers of "first aid" should be imbued with the same ideas that are applied in military practice—every wound is instantly to be covered with the cleanest piece of available fabric at hand and then brought to the physician.

In large factories and on railways it ought to be rigidly exacted that a few "first aid" packages be at hand or that the entire personnel be provided therewith. A roller bandage as a part of such outfit will do away with the handkerchief bandage which is assigned a foremost place in this book. As a rule handkerchiefs are too small for surgical purposes.

The book, nevertheless, abounds in ideas and suggestions of one well conversant with "first aid" work. A small part of it is devoted to methods of nursing, applicable mainly to the system of nursing in English hospitals.

Portfolio of Dermochromes. By Professor JACOBI, of Freiburg im Breisgau. English Adaptation of Text by J. J. PRINGLE, M. B., F. R. C. P., Physician to the Department for Diseases of the Skin at the Middlesex Hospital, London. Vol. I, parts 1, 2. New York: Rebman Company, 1903.

This work is published in four parts; the first two, bound together, have reached us. As its name implies, the volume is chiefly devoted to representations of cutaneous lesions in color, and by a process that certainly gives remarkably fine results judged from a technical standpoint, surpassing in every respect anything that has previously fallen under our notice. The parts before us include forty-two plates in color, each containing one or more figures, and in addition five plates with eleven figures in mono-

chrome, added by the English editor. The colored plates are without exception copied from models, chiefly from the Breslau clinic, with a few from Brussels, Berlin, and Vienna. Despite the fact that they are not directly from nature, the delineations are remarkable for their accuracy as to both form and color, and are superior to some recent publications in which the model artist has had no share.

The eleven photographs from life added by Pringle cannot receive the same praise, as they are the reverse of pleasing, the subjects not having been properly lighted, resulting in too strong contrasts, with absence of proper half tone, and the publisher has accentuated these defects by over printing.

The text accompanying the plates has been adapted by Pringle from the original German. It gives a brief outline of the principal features of the diseases that are illustrated and is supposed to be adapted to the use of the general practitioner rather than of the specialist. The well informed specialist does not require a work of this kind except as an ornamental addition to his library, while the volume could have been made vastly more useful to the general medical reader if four times the space had been given to carefully prepared text to accompany the admirable illustrations.

BOOKS, ETC., RECEIVED.

American Text-Book of Surgery. For Practitioners and Students. Edited by WILLIAM W. KEEN, M. D., LL. D., F. R. C. S. (Hon.), Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia; and J. WILLIAM WHITE, M. D., John Rhea Barton Professor of Surgery, University of Pennsylvania, Philadelphia. Fourth Edition, Thoroughly Revised and Greatly Enlarged. Pp. 1,363, with 551 Text-Illustrations and 39 Full-Page Plates, Many in Colors. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, \$7.00 net; sheep or half morocco, \$8.00 net.

American Pocket Medical Dictionary. Edited by W. A. NEWMAN DORLAND, A. M., M. D., Assistant Obstetrician to the Hospital of the University of Pennsylvania; Fellow of the American Academy of Medicine, etc. Containing the Pronunciation and Definition of all the Principal Terms Used in Medicine and the Kindred Sciences, Along With Over 60 Extensive Tables. Fourth Edition, Revised and Enlarged. Philadelphia, and London: W. B. Saunders & Company, 1903. Pp. 566.

A Text-Book of the Practice of Medicine. By JAMES M. ANDERS, M. D., Ph. D., LL. D., Professor of the Practice of Medicine and of Clinical Medicine, Medico-Chirurgical College, Philadelphia. Sixth Edition, Thoroughly Revised. Pp. 1,300, Fully Illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, \$5.50 net; sheep or half morocco, \$6.50 net.

The Practical Medicine Series of Year Books. Comprising Ten Volumes on the Year's Progress in Medicine and Surgery, Issued Monthly, Under the General Editorial Charge of GUSTAVUS P. HEAD, M. D., Professor of Laryngology and Rhinology, Chicago Post Graduate Medical School. Volume VII, Pædiatrics, Edited by ISAAC A. ABT, M. D., Assistant Professor of Medicine (Pædiatrics Department), Rush Medical College; Orthopædic Surgery, Edited by JOHN RIDLON, A. M., M. D., Professor of Orthopædic Surgery, Northwestern University Medical School. June, 1903. Chicago: The Year Book Publishers, 40 Dearborn Street. Pp. 232. (Price per Volume, \$1.50—Series, \$7.50).

Mechanical Vibratory Stimulation. Its Theory and Application in the Treatment of Disease. By MAURICE F. PILGRIM, M. D., First Vice-President of the American Electrotherapeutic Association; Professor of Psychiatry in the New York School of Physical Therapeutics; Editor of Department of Psychiatry in The Journal of Advanced Therapeutics. Published by The Lawrence Press, 110 Fifth Avenue, New York city. Pp. 152.

Miscellany.

Erysipelas.—Manley (*Medical Examiner and Practitioner*, October), is convinced that though many writers still follow the beaten tracks of established custom and label many cases of diverse character as erysipelas or local expressions of that malady, they bear no relation to it and a broad distinction should be emphasized between erysipelas proper and those numerous local inflammations consecutive to wound infection, or arising *de novo* as phlegmon of any type, furuncle, carbuncle, or felon. Erysipelas is a constitutional disease, an exanthem usually running through various definite stages much like variola, measles or scarlet fever, and generally tending towards recovery, but it may be accompanied or followed by various complications. It is always a fickle, treacherous affection, belonging to the domain of internal medicine rather than surgery. It seems at times to be more or less contagious, but that a healthy wound is infected by one suffering from genuine erysipelas is extremely doubtful; no such instance has ever come under Manley's observation, after nearly thirty years in medicine, and seeing several hundred cases of the disease. The exact ætiology of erysipelas yet remains very obscure; but season, sex, age, and systematic conditions all play a rôle. Fehleisen, in 1881, believed he had isolated the specific germ of the disease. But in spite of extensive bacteriological investigation on this subject, there is no unanimity or common accord of opinion, but, on the contrary, very much confusion and contradiction. The disease was formerly regarded as dependent on defective hepatic action or intestinal fermentation, impoverishment of, or impurities in, the blood, disturbance in the nervous system, inheritance, etc. Now in order to support the germ theory the causes must be proved to be all extraneous, and only operating through open wounds. This view is utterly untenable unless we confess to constantly and unconsciously traumatising our bodies in order to provide ariæ for the specific microorganism. Widall gives the most comprehensive and rational presentation of the rôle of the specific microbe of erysipelas, which, he says, is a typical streptococcus malady, as pneumonia is a type of malady resulting from the pneumococcus. But while he confesses that the microorganism is the active agent in the pathological channel, something more is necessary to establish the malady. He observes: "The streptococcus parasite always presents a universal identity; it is the common saphrophyte of the cutaneous surface, and above all, one the natural cavities; like the staphylococcus, the pneumococcus, the colon bacillus, it may at any time assert its virulence; it may penetrate more or less deeply and determine local or general disorder. It is the primitive infective agent in erysipelas, in puerperal fever, in traumatic septicæmia; in localized lesions as pleurisy and in many purulent conditions." Finally, he notes: "The deadly virulence of this mite is observed when lethal systemic changes stir it into action, as a secondary infective agent; in grave typhoid, in scarlet fever, in measles, often leading to a mortal issue; sometimes its action being so apparent as to mask the veritable pathologic agent; wherefore some authors regard it as the microbe of grippe and scarlet fever:

in the course of several chronic maladies, cachectic or diathetic, the streptococcus acts as a secondary agent; it kills in cardiac and Bright's disease; in diabetes by suppuration, and in cancer by penetrating the neoplasm." From the foregoing sweeping indictment we are certainly forced to the conclusion that in genuine erysipelas the chain coccus constitutes but an incident of the disease. Inoculation experiments with the streptococcus so far only prove that a local infection may be induced with more or less septic constitutional disturbances, very much like what results from vaccination, though usually more severe. But Manley is unable to find a single instance on record, by any reliable authority, of streptococcus inoculation in the human being producing typical erysipelas, with its distinctive ambulant features, its spread limited to the integument and subcutaneous areolar tissues and running through fairly regular definite stages. The synthetic article, at best, is but a mongrel, abortive imitation.

The Muse of Medicine.—The following verses have been sent to us by Dr. W. B. Konkle, of Montoursville, Pa., with the information that they were recently read at a medical meeting. We think them worthy of a larger audience than that which heard them, and so reproduce them:

I sought her on Parnassus' height;
O'er rocks and crags, past Delphi's shrine,
Above the shades and clouds of night
I climbed to where the sacred Nine,
Beyond the clang of mortal fray,
Repose 'mid everlasting day.

There dwells superb Calliope
Chanting of heroes and the gods;
And blanched, blind-eyed Melpomene;
There fair Euterpe virtue lauds;
Fond Erato there glows and sighs,
And rapt Polymnia scales the skies.

There Clio scans her ponderous tomes;
Terpsichore glides through flowery glades;
Urania 'mid the star-maze roams,
And spectres flee Thalia's raids,
But she for whom I dared my quest
Moved not among these scenes so blest.

I urged my steps toward stately halls
Whose domes Wealth spangled with its gold;
Where Power emblazoned all the walls,
Where Fame's clear trumpet-notes aye rolled.
The things that earth esteems most rare
In proudest pageant mingled there.

And in and out, and up and down
Those dazzling courts I sadly strayed;
Unheeding every heartless frown,
By that cold pomp still undismayed.
But she to whom my vows belong
Appeared not in that gilded throng.

Along the paths of pleasure then
In swift and eager search I sped;
By crystal brook, up mossy glen,
And on through woodland vistas led,
Till sweet enchantment o'er me fell,
And bound my soul within its spell.

I heard a Satyr's sensual shout
Join with his Nymphs' rich laughter peal;
I saw the Fauns hold merry rout,
And flushed Bacchantes madly reel,
But not on such unhallowed ground
Might foot-prints of my Muse be found.

Rousing, as from Arcadian dream,
The plaintive wail of human woe
Floats to my ears, a ceaseless stream
Of monotone intense though low,
Pensive, I seek the haunts where reign
Disease and misery and pain

And here behold by Muse so fair
Dwelling 'midst pestilence and blight!
Pallid from breathing noisome air,
Care-worn from all this sickening sight;
And yet, with graces so adorned,
Her charms may be nor scoffed, nor scorned.

With warmest homage, gentle Queen.
Again to thee I pledge my faith;
Goddess of peerless mould and mien,
Self-matched against the powers of death.
Hail to the love that ne'er shall fail!
Truest, divinest Muse, all hail!

W. B. KONKLE.

Montoursville, Pa.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending November 6, 1903:

Smallpox—United States.			
Place.	Cases.	Deaths.	
Alabama—Mobile	Oct. 25-31	7	
California—San Francisco	Oct. 19-25	2	
Colorado—Denver	Sept. 27-Oct. 17	14	
Illinois—Belleville	Oct. 25-31	7	
Illinois—Chicago	Oct. 25-31	1	
Indiana—Evansville	Oct. 18-24	1	Imported
Louisiana—New Orleans	Oct. 25-31	1	
Maryland—Cumberland	Oct. 1-31	1	
Massachusetts—Boston	Oct. 25-31	1	
New Hampshire—Manchester	Oct. 25-31	7	
New York—New York	Oct. 25-31	1	
Ohio—Cincinnati	Oct. 24-30	4	
Ohio—Cleveland	Oct. 25-31	2	
Pennsylvania—Erie	Oct. 25-31	1	
Pennsylvania—Johnstown	Oct. 25-31	6	2
Pennsylvania—Philadelphia	Oct. 25-31	13	8
Pennsylvania—Pittsburgh	Oct. 18-31	96	12
1 case imported.			

Smallpox—Foreign.			
Argentina—Buenos Ayres	Aug. 1-31	2	12
Belgium—Antwerp	Oct. 4-10	2	
Brazil—Rio de Janeiro	Sept. 28-Oct. 11	117	64
Colombia—Barranquilla	Oct. 5-18	3	
France—Paris	Oct. 12-17	1	1
France—Rouen	Sept. 1-30	5	
Great Britain—Birmingham	Oct. 11-17	1	
Great Britain—Glasgow	Oct. 17-23	1	1
Great Britain—Liverpool	Oct. 11-17	4	
Great Britain—London	Oct. 11-17	11	
Great Britain—Manchester	Oct. 11-17	5	
Gt. Britain—Newcastle-on-Tyne	Oct. 11-17	6	
Greece—Athens	Oct. 4-10	1	
Guiana—Demerara	Aug. 29-Sept. 26	326	1
India—Bombay	Sept. 30-Oct. 6	2	2
Hawaiian Islands—Honolulu	Sept. 1-30	3	
Japan—Yokohama	Jan. 1-Sept. 19	2	
Malta	Oct. 13-19	1	
Mexico—Mexico	Oct. 12-18	2	2
Russia—Moscow	Oct. 4-10	4	
Russia—St. Petersburg	Oct. 4-10	19	
Russia—Warsaw	Sept. 20-26	3	
Spain—Barcelona	Oct. 11-17	5	
Turkey—Smyrna	Oct. 5-11	59	
Uruguay—Montevideo	June 5-Sept. 5	10	

Yellow Fever—United States.			
Texas—Connel	Nov. 3	1	
Texas—Laredo	Oct. 28-Nov. 4	81	20
Texas—Minera	Oct. 30	1	
Texas—San Antonio	Oct. 27-Nov. 2	4	3
Texas—Dewitt County	To Nov. 4	5	1

Yellow Fever—Foreign.			
Brazil—Rio de Janeiro	Sept. 28-Oct. 11	4	3
Costa Rica—Limon	Oct. 22	1	
Mexico—Tampico	Oct. 11-24	4	
Mexico—Vera Cruz	Oct. 19-24	41	12
Jamaica—Port Royal	Oct. 11-17	4	

Cholera—Foreign.			
India—Madras	Sept. 19-Oct. 2	4	
Japan—Kobe	Sept. 27-Oct. 3	2	1
Japan—Nagasaki	Oct. 26	1	Present.
Turkey—Arghani-Madden	Oct. 6	2	
Turkey—Gerger	Oct. 6	4	
Turkey—Syria	Sept. 28-Oct. 5	743	635

Plague—Foreign.			
Brazil—Rio de Janeiro	Sept. 28-Oct. 11	80	31
Egypt—Alexandria	Oct. 3-10	7	
India—Bombay	Sept. 30-Oct. 6	76	
Japan—Yokohama	Sept. 13-26	2	
Mauritius	Sept. 18-Oct. 1	104	76
South Africa—East London	Sept. 6-19	1	1
South Africa—Port Elizabeth	Sept. 6-19	1	
Turkey—Syria, Damascus	Oct. 19		Present.
Turkey—Hama	Oct. 19		Present.
Turkey—Homs	Oct. 19		Present.
Turkey—Tripoli	Oct. 19		Present.

Official List of the Changes of Stations and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the Seven Days Ending October 29, 1903:

- ANDERSON, J. F., Passed Assistant Surgeon. To proceed to Lexington, Va., for special temporary duty.
- BROOKS, S. D., Surgeon. Detailed as inspector of the marine hospital and unserviceable property at Mobile, Ala.
- BULLARD, J. I., Acting Assistant Surgeon. Granted leave of absence for four days from October 29th.
- FOSTER, M. H., Passed Assistant Surgeon. Granted leave of absence for fifteen days from November 3rd.
- GASSAWAY, J. M., Surgeon. Granted extension of leave of absence for one month from October 13th.
- GOLDSBOROUGH, B. W., Acting Assistant Surgeon. Department letter granting Acting Surgeon Goldsborough leave of absence for three weeks from September 22, 1903, amended to read thirteen days from September 22nd.
- JACKSON, J. M., JR., Acting Assistant Surgeon. *Department letter granting Acting Assistant Surgeon Jackson leave of absence for thirty days from October 5, 1903, amended so as to read thirty days from October 26th.
- KALLOCH, P. C., Surgeon. To proceed to Dorchester, Mass., for special temporary duty.
- NYDEGGER, J. A., Passed Assistant Surgeon. Bureau letter of October 10, 1903, granting Passed Assistant Surgeon Nydegger leave of absence for one month, amended so that said leave shall be for twenty-nine days from September 23rd.
- PERRY, J. C., Passed Assistant Surgeon. To proceed to Lexington, Va., for special temporary duty.
- SAFFORD, M. V., Acting Assistant Surgeon. Granted leave of absence for three days from October 23, 1903, under paragraph 191 of the regulations.
- WICKES, H. W., Passed Assistant Surgeon. Granted leave of absence for two days from October 28th.

For the Seven Days Ending November 5, 1903:

- ACHENBACH, JOHN, Pharmacist. Granted leave of absence for six days from October 26, 1903, under paragraph 210 of the regulations.
- BILLINGS, W. C., Assistant Surgeon. Relieved from duty at Quebec, Canada, and assigned to duty in office of the U. S. Commissioner of Immigration at St. Johns, N. B.
- BOGGESE, J. S., Assistant Surgeon. Granted leave of absence for three days from November 3rd.
- CARTER, H. R., Surgeon. Granted leave of absence for one day, October 29, 1903, under paragraph 189 of the regulations.
- CLARKE, F. M., Acting Assistant Surgeon. Granted leave of absence for twenty days from November 8th.
- EHEMENDIA, D. M., Acting Assistant Surgeon. Granted leave of absence, on account of sickness, for thirty days from October 5th.
- KERR, J. W., Assistant Surgeon. Granted leave of absence for two days from October 18, 1903, under paragraph 191 of the regulations. Relieved from duty at the Immigration Depot, New York, N. Y., and directed to proceed to Duluth, Minn., for temporary duty as medical inspector of aliens.
- STANSFIELD, H. A., Assistant Surgeon. Granted leave of absence for ten days. Upon expiration of leave to report at Bureau, Washington, D. C.
- TAPPAN, J. W., Acting Assistant Surgeon. Granted leave of absence for seven days from November 2, 1903, under paragraph 191 of the regulations.
- VAUGHAN, G. T., Assistant Surgeon General. Appointed as member of committee to consider and report upon the matter of uniforms and insignia for officers and employees of the Customs Service.
- WILLE, C. W., Assistant Surgeon. Relieved from duty at Philadelphia, Pa., and directed to proceed to Baltimore, Md., and report to medical officer in command for duty and assignment to quarters.

Boards Convened.

Board convened to meet at Washington, D. C., October 29, 1903, for the physical examination of an officer of the Revenue Cutter Service. Detail for the board—Assistant Surgeon-General W. J. PETTUS, chairman; Assistant Surgeon, J. McLAUGHLIN, recorder.

Board convened to meet at Philadelphia, Pa., October 30, 1903, for the physical examination of an officer of the Revenue Cutter Service. Detail of the board—Assistant Surgeon W. A. KORN, chairman; assistant Surgeon C. W. WILLE, recorder.

Board convened to meet at Baltimore, Md., November 2, 1903, for the physical examination of an officer of the Revenue Cutter Service. Detail for the board—Surgeon H. R. CARTER, chairman; Assistant Surgeon M. W. GLOVER, recorder.

Promotion.

Assistant Surgeon W. C. HOBODY commissioned (recess) as passed assistant surgeon in the Public Health and Marine Hospital Service, to rank as such from August 15th.

Appointment.

W. J. S. STEWART appointed acting assistant surgeon for duty at Rio de Janeiro, Brazil.

Casualties.

Assistant Surgeon C. E. DECKER died October 21, 1903.
Acting Assistant Surgeon C. B. SWEETING died October 4, 1903.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending November 7, 1903:

- ASHBURN, P. M., First Lieutenant and Assistant Surgeon. Will proceed to Fort Snelling, Minn., and will then rejoin station at Fort Missoula, Mont.
- BAKER, DAVID, First Lieutenant and Assistant Surgeon. Will proceed to Fort Leavenworth, Kan., for duty.
- BLANCHARD, R. M., First Lieutenant and Assistant Surgeon. Returned to Fort Thomas, Kentucky, from Camp Sanger, Kansas.
- BROOKS, WILLIAM H., First Lieutenant and Assistant Surgeon. Granted thirty days' leave of absence on completion of temporary duty at Fort Snelling, Minn.
- CRABTREE, GEORGE H., First Lieutenant and Assistant Surgeon. Ordered to report for duty at Fort Columbus, N. Y.
- CRAMPTON, L. W., Major and Surgeon. Granted thirteen days' leave of absence from November 1, 1903.
- EWING, CHARLES B., Major and Surgeon. Ordered to report for duty at Columbus Barracks, Ohio.
- FRICK, EUCLID B., Major and Surgeon. Will proceed to Fort Snelling, Minn., for duty.
- GEDDINGS, EDWARD F., First Lieutenant and Assistant Surgeon. Will proceed to Fort Keogh, Mont., for duty.
- GEER, CHARLES C., First Lieutenant and Assistant Surgeon. Ordered to proceed to Manila for duty.
- GILCHRIST, H. L., First Lieutenant and Assistant Surgeon. Granted ten days' leave of absence from November 1, 1903.
- GREENLEAF, HENRY S., First Lieutenant and Assistant Surgeon. Relieved from duty at the Presidio of San Francisco, Cal., and ordered to Fort Moultrie, S. C., for duty.
- HARRIS, JESSE R., First Lieutenant and Assistant Surgeon. Granted thirty days' leave of absence from November 4, 1903.
- HENDERSON, A. B., First Lieutenant and Assistant Surgeon. Ordered before the army retiring board at Denver, Colo.
- HOWARD, DEANE C., First Lieutenant and Assistant Surgeon. Ordered to U. S. A. General Hospital, Washington Barracks, D. C., for duty.
- MCANDREW, P. H., First Lieutenant and Assistant Surgeon. Ordered to report for temporary duty at Fort Des Moines, Iowa.

RAND, IRVING W., First Lieutenant and Assistant Surgeon. Granted leave of absence for thirty days from October 19, 1903, with permission to apply for an extension of thirty days.

REYNOLDS, F. P., First Lieutenant and Assistant Surgeon. Left Camp Sanger, Fort Riley, Kan., en route to Fort Sam Houston, Texas, for duty on drill board.

ROBERTS, WILLIAM, First Lieutenant and Assistant Surgeon. Granted three months' sick leave on arrival of medical officer at Fort Brady, Mich.

SHAW, HENRY A., Major and Surgeon. Will proceed to Fort Adams, R. I., for duty.

THORNBURGH, R. M., First Lieutenant and Assistant Surgeon. Will report for duty at Fort Warren, Mass.

WAKEMANN, WILLIAM J., Major and Surgeon. Granted thirty days' leave of absence from November 5, 1903.

WOODBURY, FRANK T., First Lieutenant and Assistant Surgeon. Will proceed to Plattsburg Barracks, N. Y., for duty.

The following named assistant surgeons will report at the Army Medical School: E. G. BINGHAM, O. G. BROWN, CHARLES L. FOSTER, JOHN B. HUGGINS, PERCY L. JONES, GEORGE F. JUEMANN, THEO. LAMSON, ROBERT C. LOVING, E. W. MILLER, ROBERT E. NOBLE, HENRY F. PIPES, JAY R. SHOOK, JOSEPH F. SILER, LLOYD L. SMITH, EDWARD B. VEDDER, A. M. WHALEY.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending November 7, 1903:

BLACKWELL, E. M., Passed Assistant Surgeon. Detached from the U. S. S. *Wheeling* and ordered to the U. S. S. *Castine*.

CAMPBELL, F. E., Assistant Surgeon. Ordered to the Naval Museum of Hygiene and Medical School, Washington, D. C.

CHAPMAN, R. B., Acting Assistant Surgeon. Detached from duty with recruiting party No. 4, and ordered to the Navy Yard, Mare Island, California.

DABNEY, V., Acting Assistant Surgeon. Detached from the U. S. T. S. *Pensacola*, and ordered to duty with recruiting party No. 4.

ELLIOTT, M. S., Surgeon. Ordered to the Naval Hospital, Norfolk, Va.

ELMER, M. K., Assistant Surgeon. Detached from the U. S. R. S. *Independence*, and ordered to the U. S. T. S. *Pensacola*.

EVANS, S. G., Surgeon. Detached from the Naval Hospital, Norfolk, Va., and ordered to the U. S. S. *Cleveland*.

HIGH, W. E. G., Assistant Surgeon. Ordered to the U. S. T. S. *Constellation*.

KENNEDY, J. T., Passed Assistant Surgeon. Commissioned passed assistant surgeon with rank of lieutenant.

MARSTELLER, E. H., Surgeon. Ordered to the U. S. S. *Columbia*.

MILLER, J., Assistant Surgeon. Ordered to the Naval Museum of Hygiene and Medical School, Washington, D. C.

MURPHY, J. A., Assistant Surgeon. Ordered to the Navy Yard, Washington, D. C.

ODELL, H. E., Passed Assistant Surgeon. Detached from the Naval Hospital, Norfolk, Va., and ordered to the U. S. S. *Wheeling*.

OHNESORG, K., Passed Assistant Surgeon. Commissioned passed assistant surgeon with rank of lieutenant from March 3, 1903.

REEVES, I. S. K., Assistant Surgeon. Ordered to the Naval Museum of Hygiene and Medical School, Washington, D. C.

RICHARDSON, F. A., Acting Assistant Surgeon. Ordered to the Naval Hospital, Newport, R. I.

SCHWERIN, L. H., Acting Assistant Surgeon. Detached from the U. S. S. *Yankton* and ordered to the U. S. S. *Southery*.

SPEAR, R., Passed Assistant Surgeon. Detached from the U. S. S. *Wheeling* and ordered home to await orders.

TAYLOR, E. C., Assistant Surgeon. Ordered to the Naval Museum of Hygiene and Medical School, Washington, D. C.

WHEELER, W. M., Surgeon. Detached from the Naval Hospital, Newport, R. I., and granted leave for thirty days.

Births, Marriages, and Deaths.

Married.

BAKER—DOWD.—In San Francisco, California, on Wednesday, October 28th, Dr. Frank C. Baker, U. S. A., and Miss Nettie Dowd.

BARKER—HALSEY.—In Baltimore, Maryland, on Thursday, October 29th, Dr. Llewellys F. Barker and Miss Lillian Haines Halsey.

BIBBINS—MOREY.—In Baltimore, Maryland, on Thursday, October 29th, Dr. Arthur Barnereld Bibbins and Miss Ruthella Bernard Morey.

CARMAN—WILSON.—In Oneonta, N. Y., on Thursday, October 29th, Dr. Fletcher F. Carman and Miss Ella Gertrude Wilson.

FRANCIS—WALDRON.—In London, England, on Wednesday, October 28th, Dr. Lee Austin Francis, of Pueblo, Colorado, and Miss Ethel Mary Waldron.

KNORP—MORAGHAN.—In San Francisco, California, on Wednesday, October 28th, Dr. Francis F. Knorp and Miss Elsie L. Moraghan.

KOHN—LEBERMAN.—In Philadelphia, Pennsylvania, on Monday, November 2nd, Dr. Bernard Kohn and Miss Elsa A. Leberman.

LITTLE—WOOLEY.—In Brooklyn, N. Y., on Tuesday, October 27th, Dr. George French Little and Miss Edna Wooley.

MCNEER—BENNETT.—In Baltimore, Maryland, on Tuesday, November 3rd, Dr. Richard L. McNeer and Miss Effie Maude Bennett.

MORGAN—CADMUS.—In Bloomfield, New Jersey, on Monday, October 26th, Dr. Browne Morgan and Miss Anna Westervelt Cadmus.

POTTS—DEADERICK.—In St. Louis, Missouri, on Wednesday, October 28th, Dr. Charles D. Potts and Miss Carrie Kendall Deaderick.

TOWNSEND—JANES.—In Madison, Wisconsin, on Thursday, October 29th, Mr. George H. Townsend and Dr. Elma L. Janes.

TREXLER—CONKLE.—In Kansas City, Missouri, on Wednesday, November 4th, Dr. James E. Trexler and Miss Katherine Conkle.

Died.

ANDREAS.—In South Bethlehem, Pennsylvania, on Tuesday, October 27th, Dr. Benjamin A. Andreas, in the forty-fifth year of his age.

ANGELL.—In Brooklyn, N. Y., on Tuesday, November 3rd, Dr. Emerson C. Angell, in the eighty-first year of his age.

ATKINSON.—In Baltimore, Maryland, on Thursday, October 29th, Dr. Archibald Atkinson, in the seventy-third year of his age.

CASTILLO.—In Lima, Peru, on Friday, November 6th, Dr. Ivan C. Castillo.

CHISHOLM.—In Petersburg, Virginia, on Sunday, November 1st, Dr. Julian J. Chisholm, in the seventy-fourth year of his age.

DALY.—In Newark, New Jersey, on Tuesday, November 3rd, Dr. Bernard A. Daly, in the twenty-eighth year of his age.

JENKINS.—In Kansas City, Missouri, on Wednesday, October 28th, Dr. William R. Jenkins, in the forty-ninth year of his age.

LATHROP.—In Norwich, Connecticut, on Sunday, November 8th, Dr. S. S. Lathrop, in the fortieth year of his age.

MORTON.—In Elizabeth, New Jersey, on Sunday, November 1st, Dr. Joseph Billings Morton, in the seventy-eighth year of his age.

POLLAK.—In St. Louis, Missouri, on Saturday, October 31st, Dr. Simon Pollak, in the ninety-first year of his age.

SEELEY.—In Cincinnati, Ohio, on Saturday, November 7th, Dr. W. W. Seeley.

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AND

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No. 1303.

Original Communications.

OCULAR HEADACHE AND OTHER OCULAR REFLEXES; A STATISTICAL STUDY.

By M. W. ZIMMERMAN, M.D.,

PHILADELPHIA,

OPHTHALMIC SURGEON TO THE GERMANTOWN HOSPITAL.

Several years ago I began systematically noting the various details in each case of ocular headache coming under my notice, with special reference to location. This habit, having been continued for several years, placed at my disposal a series of facts not usually recorded with great care. The number of records became quite large, and it seemed to me that some useful purpose might be served by making a careful statistical study for publication. For this purpose there were selected two series of one thousand cases each; one from private practice, and the other from hospital dispensary service. Both groups are unbroken series of all cases in which a formal estimation of the refraction was made, interrupted only by those cases of other types in which the optical conditions were not investigated. The personal factor cannot be eliminated, but its influence has been made uniform by using only those cases in which the examinations were made by the writer in person. This decision resulted in excluding from the hospital series the very capable work done for me during an absence from the city, but this is the only exception to the serial character of the groups as indicated above.

It is believed that the optical errors are presented as accurately as our present methods of examination will permit, inasmuch as the use of a competent cycloplegic is my almost constant practice. Atropine was used wherever possible in early life, while somewhat later hyoscyamine sulphate was frequently employed. Homatropine, when properly applied, is an extremely valuable agent, but its employment in these series was mainly after the age of forty, and invariably in strong solutions, frequently instilled. I append a table giving these facts in statistical form, ar-

ranged in decades; also one displaying the cases examined without the use of any drug, similarly arranged (Tables No. 1 and No. 2). Including the

Table No. 1.

MYDRIATICS USED.

	Under 10 years	10-20 years	20-30 years	30-40 years	40-50 years	Over 50 years	
Atropine	42	267	169	55	9	0	542 Hospital
	16	79	80	41	19	2	237 Private
	58	346	249	96	28	2	779—Total
Hyoscyamine	0	44	82	65	11	0	202 Hospital
	0	22	77	61	49	2	211 Private
	0	66	159	126	60	2	413—Total
Homatropine	0	11	21	65	107	59	263 Hospital
	0	27	100	125	170	88	508 Private
	0	38	124	188	277	147	774—Total
	58	430	532	410	355	151	

re-examinations, there were 235 instances in which no drug was employed, but in seven cases my notes failed to give the patient's age, hence Table No. 2 contains the reports of but 228 cases. None

Table No. 2.

EXAMINED WITHOUT MYDRIATICS.

	20-30 years	30-40 years	40-45 years	Over 45 years	
Hospital	0	4	3	59	66
Private	4	5	11	151	171
	4	9	14	210	237

under twenty years of age were tested without induced paralysis of accommodation.

In all the following tables the term anisometropia is limited to the cases in which one eye was myopic, and the other hypermetropic; mixed astigmatism includes cases in which this defect occurred in one or both eyes; and all other cases are classified according to the eye having the higher or more complicated error. Also, it is to be under-

stood that astigmatic eyes have been graded with reference to the higher meridian of the more defective eye.

As previously stated, the total number was two thousand, of which 1,427 presented headache in some of its forms as a symptom, and it is this group I propose to treat at some length. Before doing so, however, it may be of interest to compare it very briefly with the group of cases in which there was no headache. These have not been introduced in tabulated form, but they show the various optical errors in practically the same ratios as in the groups with headache. Studied with regard to age, however, they show a much greater proportion of cases coming within the period during which presbyopia becomes manifest; 56 per cent. being beyond the age of forty years.

From the evidence in my possession, no attempt can be made to establish a peculiar character in

uated at any particular point to attract the patient's attention, is not at all common, but the combination of general discomfort throughout the head, with a distinctly localized distress, is frequently seen, and where this happens it will usually be found that the localized portion bears the closer relation to the ocular exciting cause.

Table No. 4.
HEADACHES IN 1000 HOSPITAL CASES.

	Myopia 3 D. or over	Myopic Astigmatism 3 D. or over	Hypermetropia 3 D. or over	Hypermetropic Astigmatism 3 D. or over	Mixed Astigmatism 3 D. or over	Anisometropia	Emmetropia	
Frontal	1 318	2	119	15	193	23	8 7 2	391
Frontal and occipital	1 1 2		11	1	18		1 2	37
Frontal and vertical			1	7	1			9
Frontal and temporal				4	19	2		25
Frontal and general	1		1	2				4
Occipital				4	2			6
Occipital and vertical			1	2				3
Occipital and temporal				1	1			2
Occital and general					1	1		2
Vertical			1	1	6			8
Vertical and temporal		1		1				2
Vertical and general								
Temporal		1	6	1	7			15
Temporal and general								
General only	2			2	8		1 2	15
No details	3 3 9	3	57	11	111	19	5 8 1	230
	5 10 31	6	211	32	372	45	15 19 3	749

The general involvement is probably a later and further protest against neglect of the early distress signals. In Tables No. 3 and No. 4 I have made an attempt to display the main facts in detail.

In making a comparison of the various items in these two tables, the most noticeable fact is, perhaps, their similarity. While variations exist, they are too slight to be important; the main one being a somewhat higher percentage of headaches in the hospital series, due almost entirely to the greater number of the frontal variety. This difference, I presume, is accounted for by the larger number, among hospital patients, of eyes which are subjected to exacting work. The hospital group under consideration contains weavers and other woolen-mill workers in a very large proportion. In all other important respects the two tables may be considered together, presenting headaches in 67.8 per cent. of the private cases, and 74.9 per cent.

Table No. 3.
HEADACHES IN 1000 PRIVATE CASES.

	Myopia Myopia 3 D. or over Myopic Astigmatism Myopic Astigmatism 3 D. or over Hypermetropia Hypermetropia 3 D. or over Hypermetropic Astigmatism Hypermetropic Astigmatism 3 D. or over Mixed Astigmatism Anisometropia Emmetropia										
Frontal	2	1	12	10	11	181	17	8	6	1	279
Frontal and occipital			1	1	3	25	2	3			35
Frontal and vertical			1		1	10					12
Frontal and temporal			3		3	15	1	1			23
Frontal and general					1	5	1				7
Occipital					3	1	12				16
Occipital and vertical			1			1		1	1		4
Occipital and temporal		1			1	4					6
Occipital and general									1		1
Vertical					1	10	1	1			13
Vertical and temporal											
Vertical and general											
Temporal			2	2		1	6		1		12
Temporal and general											
General only					2	1	6	2	1	1	13
No details	1	2	11	10	23	6	150	37	13	4	257
	3	4	4	25	78	9	124	62	27	13	267

the pain which occurs reflexly from eye strain when compared with that having a different origin, but some very substantial facts are available concerning the location of the head pains. Mixed types of headache are quite common, and very frequently they involve two distinct regions, more rarely three. When pain is referred to more than one point, these may be involved simultaneously or separately, but the former seems to be more usual. General headache, not sufficiently accent-

of the hospital cases, making for the whole series of two thousand consecutive patients, 71.3 per cent. presenting this symptom. Among the total number of headaches there were 487 cases in which the notes failed to furnish any facts as to the location or other details, leaving 940 cases to be classified. Analyzing a little further the latter headache cases, we find in 670, or 71.2 per cent., a purely frontal pain, while, by combining with these the cases in which this is included with pain in other portions of the head, we find 822 cases, or 87.5 per cent., presenting frontal headache. The retrobulbar pains and those about the nasal bones have been excluded. All the other forms of headache occur so much less frequently that it is unnecessary to consider them in great detail, as the facts can all be gleaned from the tables at a glance. The next most frequent location is temporal, after which come general, vertical, and occipital.

It would be extremely interesting, and perhaps of some practical value, to establish some definite relation between certain forms of headache and refraction errors of a particular type. For the purpose of investigating this view of the matter the preceding tables were very much elaborated, so that each case, where possible, was tabulated, not only as to the location of the pain, but with regard to the character and degree of the optical error with which it was associated. The results, as might have been expected, utterly fail to give each or any error its peculiar type of reflex pain, but they demonstrate very fairly the relative frequency with which these occur with the different types of error. A glance over the totals at the bottom of the tables will give the figures for each kind and degree of error. The most conspicuous fact thus displayed is, that compound hypermetropic astigmatism, of low or moderate degree, is much the most common error, and it was found in 48.78 per cent. of all cases presenting headache. Following this at a considerable distance we have the lower grades of simple hypermetropia; and here may be noted a very distinct difference between the two series of patients. Among the private patients the astigmatic error is present somewhat more frequently than in the hospital series, but the difference is not very great. On the other hand, simple hypermetropia of less than three dioptries was present 211 times among the hospital patients and only 78 times among private patients. Inasmuch as we have no reason to suppose that this particular error exists more frequently in one than in the other class of the population, the difference, I think, must be accounted for by the probable fact that patients constituting the hospital group are more exposed to the results of excessive eye work.

One can understand without difficulty the cau-

sation of headache by a myopic error, whether high or low, when it is associated with astigmatism, because the efforts of accommodation to equalize the unlike axes would be a sufficient explanation. It is not, however, clear to the writer just in what manner a reflex headache can be caused by simple myopia. The possibility is, however, shown by its presence in 21 instances, 13 of which were myopias exceeding 3 D. The mere coincidence of headache and high myopia is manifestly no proof of a causal relation, but in a study of the results, which will be alluded to elsewhere, there were eight of these cases in which the headache was cured by concave lenses alone.

The frequency of emmetropia in the general population is not known. The records of office practice and hospital service refer to selected groups, and are, therefore, not available as evidence, while the many attempts to ascertain the refraction of large numbers in schools and institutions, are open to the serious objection of inaccuracy, which is inseparable from the methods necessarily employed. It is, however, of some interest to note the presence of five cases, among those being considered, in which, during complete cycloplegia, all lenses were rejected, and vision of 1 or better existed. These patients were subjected to examination because of asthenopic symptoms and headache, supposed to be due to small errors not recognized by hasty ophthalmoscopic estimation. The ætiological influence of accommodative effort in producing these symptoms is well known, but it is here suggested to be possible without the excessive or irregular demand caused by faults of refraction. This can perhaps be explained upon a basis of excessive work, depressed health reducing the ocular endurance, or some local organic or functional disturbance partially invalidating the organs. It is significant that such eyes cease to complain while under the influence of the mydriatic. None of these patients was reexamined.

The time at which an ocular headache appears, or when constant the period of its greatest intensity, varies very much. Usually it bears a very direct relation to the actual eye work of the individual, appearing during the afternoon school period in children, and in the later hours of a day's work in the case of weavers, clerks, and engravers. To this class of direct resultants belongs also the morning headache so frequently complained of by patients with ocular errors; the tendency to early morning discomfort being greatly increased by reading, card playing, and the intense, although distant, fixation of the theatre during the previous evening. While continuous work within the ordinary reading range is beyond question the most frequent exciting cause, intense watching of comparatively distant objects is perhaps second

in frequency. The theatre, concert hall, public games in bright sunlight, and even sustained watching of a speaker's features, are common sources of reflex headache. Another very potent factor in determining the onset of an ocular headache is traveling. With many people even riding in a street may result in an attack, and this is frequently associated with nausea. This carsickness is aggravated by looking at passing objects, and is much benefited by glancing indifferently at the interior of the car, or closing the eyes. It is, in my experience, not uncommon to prevent this annoyance entirely by wearing glasses at such times, even where the error is too small for constant correction. Theoretically it would seem, in view of the extreme and rapidly alternating demands made upon the lateral muscles while looking from a car window at passing objects, as if there should be a demonstrable heterophoria; and such abnormalities do present themselves, but no more frequently than in other cases, and purely muscular correction has been less satisfactory to me than simple correction of the ametropia.

A paper of this nature could be expanded indefinitely by introducing the clinical histories of individual cases. In the interest of brevity I have decided against such a course, but at this point I believe a useful purpose may be served, by presenting, in a condensed form, the optical history of a rather unusual patient. By including two examinations made previously to my knowledge of her, the record extends from girlhood to middle life.

CASE.—The patient was of unusual intelligence, being a member of a physician's family, and generally in fair health. During a period of twenty-two years she had had nine changes of glasses, all after a careful refraction under the influence of atropine except once, in 1896, when a small prism was introduced. The prism being of doubtful utility, it was omitted in all subsequent lenses, and no other form of muscular treatment has been resorted to.

1879	Atropine	{ O.D. S + 2.50 Cy + 1.50 ax. 90
		{ O.S. S + 3.50 Cy + 1. ax. 90
December 2, 1889.	Atropine	{ O.D. S + 3.50 Cy + 1.75 ax. 75
		{ O.S. S + 4.25 Cy + 1. ax. 90
February 27, 1893.	Atropine	{ O.D. S + 3.25 Cy + 1.50 ax. 75
		{ O.S. S + 3.75 Cy + 1. ax. 105
December 1, 1893.	Atropine	{ O.D. not examined.
		{ O.S. S + 4. Cy + 1. ax. 105
November 22, 1894.	Atropine	{ O.D. examined—not changed.
		{ O.S. S + 4.25 Cy + 1. ax. 95
		{ O.D. Same.
June 20, 1896.	No mydriatic	{ O.S. Same and P. 2 base out.
October 2, 1897.	Atropine	{ O.D. S + 3.25 Cy + 2. ax. 75
		{ O.S. S + 4. Cy + 1.25 ax. 95
		{ O.D. no change.
July 18, 1899.	Atropine	{ O.S. S + 4.00 Cy + 1.50 ax. 95
		{ (only O.S. examined.)
		{ O.D. S + 3.50 Cy + 2. ax. 75
		{ O.S. S + 4. Cy + 1.75 ax. 100

Headache has invariably been an important symptom, although, of course, associated with other discomforts. The relief by glasses was not always absolute, but in all other instances, except possibly after the introduction of the prism, was considered satisfactory by both the patient and myself. It will be seen that the first change, after an interval of ten years, was very considerable, but the subsequent variations were very small, sometimes indeed being quite trifling. The matter was always freely discussed with the patient and her family, but our inclination to disregard these small alterations was not justified by the results, and we must admit that, with this patient at least, a change of .25 D. or a variation of 5° in the astigmatic axis is quite sufficient to determine the onset of an ocular headache.

Reference has already been made to the influence of muscular errors on that form of asthenopia which is the result of viewing moving objects, or fixed objects from a moving vehicle. Although the importance of heterophoria as a causative factor in the production of headaches has been strongly advocated, I am not aware of any successful attempt to indicate the location or type of headache which will serve to identify it. Where the optical errors are properly estimated after complete paralysis of the accommodation, cases of emmetropia are so rare that practically every patient asking for relief from headache presents some form of optical error for correction, and, as we shall subsequently see, frequently a muscular fault in addition. Except where the one factor is greatly in excess of the other, or where there are visual phenomena directly traceable to the condition of muscular imbalance, the diagnosis of muscular asthenopia or headache must be made by exclusion, and I am of the opinion that this diagnosis is verified only where there has been a failure to secure comfort by the ordinary optical correction, followed by relief when therapeutic measures are directed solely to the extraocular muscles. The usual tendency toward mixed causes will be noted here as in other medical problems. Beginning the study and practice of ophthalmology about the time when the intelligent study and treatment of heterophorias was new, or at least actively revived, I looked for important practical results from systematic treatment of such faults, and if my experience has been somewhat disappointing, it cannot be charged to a preconceived prejudice. I shall not introduce here any evidence except that obtainable from the two series of cases previously described, and owing to the great incompleteness of the muscular records in the hospital series, it has been found necessary to exclude them. This reduces us to the facts that can be gleaned from one thousand consecutive refraction cases occurring in private practice, which, including 136 in-

stances of subsequent reexamination, furnish a group of 1,136 case records. It is to be regretted that records of the dynamic force of the various muscles, as indicated by their ability to overcome prisms, were not more systematically recorded, because this particular element in the question will be omitted from consideration. After eliminating all cases in which the records upon this subject were absent or insufficient, we have a group of 827 examinations presenting satisfactory information. In these there were 215 instances where no muscular error could be developed by the ordinary methods of measurement, including the Maddox rod and the Stevens phorometer. These indicate about 25.9 per cent. of the patients who presented themselves for treatment to be without manifest fault in the visible functions of the extraocular muscles; a very much higher proportion of normality than among the optical errors, where it will be remembered they equaled but 0.23 per cent. of the whole number examined.

It has been thought wise at this point to introduce two tables in which these cases have been classified both as to the muscular and the optical errors (Tables No. 5 and No. 6). These show

Table No. 5.

HETEROPHORIA WITHOUT HEADACHE.

	No muscular error	Esophoria 2° or less than 2°	Esophoria 2° or less than 2°	Esophoria 2° or less than 2°	Hyperphoria 1° or less than 1°	Esophoria 2° with Hyperphoria 1°	Esophoria 2° with Hyperphoria 2°	Esophoria over 2° with Hyperphoria over 1°	Esophoria over 2° with Hyperphoria over 1°
Hypermetropia	13	7	6	3	2		2		15
Hypermetropia 3 D. or over	2	1							3
Hypermetropic Astigmatism	30	34	25	12	4	4	3	8	129
Hypermetropic Astigmatism 3 D. or over	3	5	2		1		1		11
Myopia	1						1		1
Myopia 3 D. or over	2	2		1	1	1	1	1	10
Myopic Astigmatism	4	6	4	4	5	3	2	3	38
Myopic Astigmatism 3 D. or over	7	1	4	4	2		1	1	21
Mixed Astigmatism	2	1	2	3	1	1		1	11
Anisometropia	2	1	1			1			5
	63	58	46	26	18	12	5	16	277

that 74.1 per cent. of all cases recorded some form either of simple or of compound heterophoria, but manifestly many of the lower grades are unimportant. Much difference of opinion may exist as to the exact point at which such errors require treatment, but for statistical purposes I have considered lateral deviations when under 2°, and the vertical deviations when under 1°, to be negligible

quantities. The first table represents the muscular conditions among 277 examinations where headache was not present, and of these 63 failed to show any muscular error whatever, leaving 214. Again, deducting 119 instances in which the muscular error was less than the limit above mentioned, we have but 95, or 34.3 per cent., presenting the major muscular defects. For comparison with this we may consider the second table of 550 examinations made in the presence of headache;

Table No. 6.

HETEROPHORIA WITH HEADACHE.

	No muscular error	Esophoria 2° or less than 2°	Esophoria 2° or less than 2°	Esophoria 2° or less than 2°	Hyperphoria 1° or less than 1°	Hyperphoria 1° or less than 1°	Esophoria 2° with Hyperphoria 1°	Esophoria 2° with Hyperphoria 1°	Esophoria over 2° with Hyperphoria over 1°	Esophoria over 2° with Hyperphoria over 1°
Hypermetropia	21	29	5	6	2	1		1		60
Hypermetropia 3 D. or over	3				1		2			6
Hypermetropic Astigmatism	97	122	43	29	11	12	2	21	7	300
Hypermetropic Astigmatism 3 D. or over	7	12	11	4	1	1	2		1	44
Myopia	1			1						2
Myopia 3 D. or over					1			1	1	3
Myopic Astigmatism	12	5	1	5	2			2	4	31
Myopic Astigmatism 3 D. or over		1	1	1	6	2		2	1	18
Mixed Astigmatism	9	2	2			1	1	2		19
Anisometropia	1	2					1			4
Emmetropia	1	1		1						3
	152	169	63	47	24	48	5	26	14	550

and deducting 152 cases without muscular error, and again 283 unimportant errors, we have but 115, or 20.9 per cent., presenting the major errors. It will be seen at once by comparing these final results that the larger faults in the muscular apparatus were much more frequent in the group which did not present headache as a symptom, and this may be to some extent an indication of the relative infrequency of this fault as a causative factor. It is quite true the case groups are not large, and the manner in which these figures are arrived at is somewhat crude, nevertheless, I personally believe the deductions are justified, because they are in accord with my accumulated experience of several years' practical work.

(To be concluded.)

Bethesda Hospital, of Cincinnati, O., has a "donation day" annually. On the last occasion, October 22nd, there were several hundred visitors, and besides many gifts of linen, bedding, fruits, and vegetables, cash gifts to the amount of \$700.00 were presented.

A CLINICAL STUDY OF THE USE OF ANTI-
TOXINE SERUM (DUNBAR'S) IN HAY
FEVER DURING THE SEASON OF
1903. A NEW AND DISTINCT
ADVANCE IN ITS MAN-
AGEMENT.*

By ALEXANDER W. MACCOY, M. D.,

PHILADELPHIA, PA.

As a result of researches extending over a period of seven years, Professor Dunbar, of Hamburg, has isolated a proteid substance from the pollen of rye, barley, wheat, and other gramineous plants which, when applied to the nasal mucous membrane and eyes of persons predisposed to hay fever, produces all the subjective and objective symptoms of the disease; while, when applied to individuals who are not predisposed, it elicits no morbid phenomena. He has also found that the pollen of roses, linden flowers, wormwood, and many other plants which have been considered as giving rise to hay fever, produces no symptoms when thus used. It is interesting, too, to note that the surfaces of the toxic pollen are absolutely smooth, a fact which proves that the disease is not the result of irritation produced by sharp pollen spicules. For the purpose of securing an antitoxine, Dunbar injected the toxine into animals, but at first he found that their blood serum intensified, rather than relieved, the condition produced by the toxine. Gradually, however, this property became weaker and weaker, and finally the serum assumed distinct antitoxic qualities. Thus, when mixed with equal parts of toxine, it was found to neutralize the specific action of the poison, and when applied to individuals who previously had been treated with the toxine, it produced immediate disappearance of the subjective symptoms, and, after a few minutes, great amelioration of the objective signs. Dunbar's experiments comprise more than thirty tests, of which nine were made on individuals who were predisposed to hay fever, and the remainder upon those who had never suffered from the disease.

Sir Felix Semon, of London, and Dr. P. McBride, of Edinburgh, have repeated and corroborated these experiments. Their cases, combined, are eighteen in number, of which nine were in hay fever subjects and nine in control patients. Of the former all but one gave typical reactions, while of the latter no symptoms followed an application of the toxine in any case. Their experience with the antitoxine was the same as Dunbar's. Emil Mayer, of New York, has also conducted a series of experiments and obtained reactions in all cases of spring hay fever, but no reaction in persons subject to the

autumnal variety. Both the toxine and antitoxine used thus far have been prepared from maize, and as Professor Dunbar has isolated toxic pollen from eighteen different grasses, it will be important to determine if all toxic pollens are identical, for, if such is the case, it seems possible that the specific treatment of hay fever may be realized.

Through the courtesy of Dr. Emil Mayer, of New York, I had the opportunity during the summer months of the present season of testing in my private practice the antitoxine serum of Dunbar in cases of hay fever. I have no experience with the earlier attacks of the disease known as "blossom cold," "rose cold," etc. My observations extend over July, August, and September, and were confined to *periodic attacks only*—rhinitis vasomotoria periodica.

I had not gone far in my study before I was impressed by the great latitude in public opinion as to what was to be called hay fever. Many cases coming under observation as hay fever were in no sense periodic in the summer months only, and not a few were composite or mixed cases, such as nasal polypi, nasal asthma, and chronic vasomotor rhinitis. I have limited my observations to such cases as could show summer periodicity, with a clear history of previous similar attacks, after these were reinforced by the history of heredity from one parent of similar attacks, and, chiefly, by finding all the clinical evidences in each case present upon *examination*, viz., itching of nasal membrane, sneezing itching of the conjunctival membrane and of the palate and fauces, spasmodic cough and asthma, as well as the intense nervousness and general lassitude often accompanying the attacks. Examination of the nasal cavities in the several cases showed the typical features present, such as a pale gray, boggy and leaking membrane and the nasal cavities were often filled with watery seepage. Eliminating all but purely periodical autumnal attacks, which were always examined and the history taken, I began the treatment by the local application of the serum to the eyes and nasal mucous membrane by means of a pipette. To the conjunctival mucous membrane one or two drops were instilled from two to four times a day. For the nasal passages, from two to four drops were dropped in each nostril from two to six times a day. Fifteen cases were treated; all typical cases of periodic hay fever. Six typical cases are reported as follows:

CASE I.—Patrick ———. Has had hay fever for eight years, coming on in early August. Has not missed a season for eight years. The patient has been under my care for six years, and has been treated each year according to the latest and best remedies, with but little relief. Owing to my absence from home during August the patient did not come under treatment until September 2nd. I

* Read before the Section of Otology and Laryngology of the College of Physicians, October 21, 1903.

found him suffering from a pronounced attack. After two days' treatment he had some relief from symptoms. The relief continued and increased, and at the end of one week all symptoms had abated, and he had complete freedom from sneezing, itching, and watery discharge, and had no asthma—which, in previous years had been especially bad on or about September 10th. In previous seasons, the asthmatic seizures had been severe, and had lasted all through September and part of October. This case has been under daily observation and has continued—and now remains—free, absolutely free, from every symptom. This patient used eight bottles of serum—about a bottle a day; much more than any other patient under my care.

CASE II.—Mrs. W. H. S., has had hay fever for twenty years. During the present season she had immunity from an attack of hay fever until September 3rd. She attributed the immunity to massage of the face and nose instituted before the time for her attack. On September 3rd, without warning, all the symptoms of an attack of hay fever appeared. The serum treatment was begun the following day. In two days from beginning the serum treatment, all symptoms had ceased, and she has remained perfectly well since, up to present writing.

CASE III.—H. S., aged eighteen years, has been subject to attacks of hay fever for many years. The attacks have been so severe that he has found it necessary to select an immune locality in which to spend the summer. This year, he returned home on September 8th, and had symptoms of hay fever immediately. Antitoxine serum was begun the following day; the serum relieved the itching of the eyes and sneezing, and mitigated the nasal distress. On October 7th he reports having been entirely free from attack, although some of his friends still have them. He has used four bottles of serum.

CASE IV.—Miss C. G., has suffered severely for a number of years from hay fever; has always had bad attacks of asthma from which no relief was obtained until the first frost. She had severe attacks of asthma every night this season before I saw her. On September 11th instituted treatment with antitoxine serum, using it every three or four hours. On September 15th, four days afterward, there was great relief from all symptoms and after the first night of its use there was no asthma. She used three bottles of serum. On October 12th she states that she has remained free from asthma and other symptoms. The patient has never before had such good health after an attack.

CASE V.—Child of Mrs. R. E. H., aged eleven years. The father of this child has had hay fever for years. His asthmatic attacks compel the use of asthmatic powder every night. The mother stated that the child showed asthmatic and other hay fever symptoms for the first time this fall. The child, on examination, showed the nasal membrane irritated and watery; also showed an adenoid. On September 21st began the use of antitoxine serum every four hours for two days, afterwards three or four times a day. September 26th all symptoms relieved. After twenty-four hours' use, the asthma was gone. A change to cold weather caused no relapse; this had occurred always heretofore (the pres-

ent season has been remarkable for sudden changes and cool weather). The child's mother is very enthusiastic over the child's relief. Used two bottles of serum.

CASE VI.—Mrs. Hannah McF., aged forty-two years. Her attacks of hay fever began at the age of eighteen years, twenty-four years ago. Her father had hay fever all his life. The patient's attack this season began on August 15th, with intense itching of eyes, sneezing, nasal occlusion, and constant watery discharge from the nostrils. Two weeks after seizure, a cough began when she lay down, and asthma was present from midnight till morning. By reason of the severe spasmodic cough and asthma the patient had to sit up in bed during most of the night. She has had no treatment for four years. On September 23rd, I ordered the antitoxine serum to be used every four hours. September 26th, three days later, the asthmatic attacks are milder, itching of the eyes gone; a little sneezing remains but she appears much more comfortable. The nasal mucous membrane has lost its boggy, watery, and paralyzed appearance. The serum to be continued every three hours. September 30th: since September 28th, all asthmatic attacks and other symptoms have ceased. I then discontinued the serum treatment.

The above reports of six cases are sufficient to illustrate the effect of the serum treatment. In the fifteen cases in which I made my clinical experiments, the effect was so promptly manifested, the relief so complete, and the result so permanent for this season, that it appears really marvellous! We have all heretofore experienced such deep disappointment in our trials of various methods of cure—surgical and medicinal—that the writer was, to say the least, not enthusiastic concerning results, but he can truthfully say that he believes that no such advances have ever yet been made in the treatment of hay fever. It remains to be determined whether there are in America some cases of hay fever not amenable to cure by the use of the antitoxine serum of Dunbar. So far as my fifteen cases can illustrate they appear to confirm the contention of Professor Dunbar, that cases of hay fever are dependent upon the toxine resident in the various pollens of grasses. It is interesting and noteworthy that the experiments of Professor Dunbar open up a new field, this being, so far as I am aware, the first instance of the production of an antitoxine serum or fluid where the animal product has been crossed with a vegetable product.

This clinical study is presented as confirmatory of the investigations of Professor Dunbar and of Sir Felix Semon and Dr. McBride. For this season's autumnal attacks it is an additional supplementary study of the subject to the paper published by Dr. Emil Mayer, of New York, in the *New York Medical Journal and Philadelphia Medical Journal*, consolidated, for August 8, 1903.

216 SOUTH FIFTEENTH STREET.

THE TREATMENT OF ACUTE AND SUB- ACUTE ANTERIOR GONORRHOEA BY RETROGRADE INJECTIONS OF STRONGER SOLUTIONS OF SILVER.*

By HERMANN G. KLOTZ, M. D.,
NEW YORK.

The importance of gonorrhœal infection is so generally recognized, that a contribution to the therapeutics of this disease does not require an apology. In spite of all the efforts which are being made in this direction, it seems to me that, under the prevailing social conditions, there is little prospect of a suppression, or even of a decided diminution, of infections with gonorrhœa. For the time being, therefore, the individual physician will more effectively aid in the prevention of the disastrous consequences of this disease, the more successful he is in removing as quickly and as thoroughly as possible the results of the infection. In this way he will reduce the danger of the microbes invading the glandular organs, and restrict their transportation to other individuals. Under these circumstances it becomes a duty, rather than a privilege, if one feels confident of having obtained favorable results from a certain method of treatment, to communicate and recommend the same to the profession. In this sense I beg to offer this paper, the principal features of which were published last summer in Volume lxii of the *Archiv für Dermatologie*. The method of treatment which I am about to describe has given satisfaction in a large number of cases, principally in private practice, during a number of years; as will be seen, it cannot probably make claims to absolute originality, is not founded on new principles or new remedies, but will recommend itself, I trust, principally, on account of its simplicity.

The immediate cause of gonorrhœal infection being definitely known to be the gonococcus of Neisser, it is naturally the problem of every method of treatment to remove or destroy the gonococci, and to subdue the inflammation of the mucous membrane caused by their presence. But in trying to meet these conditions, we soon find ourselves in a dilemma; the therapeutic means serviceable for the former purpose, as a rule increase the local inflammation, or damage the mucous membrane to such an extent that they must soon be abandoned; on the other hand, remedies which favor the reduction of local inflammation, have little or no effect on the vitality of the cocci. Hence several methods, particularly those intended to be abortive, have been complete fail-

ures, or, while serviceable to a certain degree, have not given entire satisfaction. I have tried to accomplish the purpose by combining the two different classes of remedies in such a manner that injections of the strongest possible solutions of gonococcicide drugs, principally salts of silver, are applied by the physician himself at more or less long intervals, during which the patient himself employs antiseptic and astringent injections in the conventional manner. In the course of years a distinct method has developed from this general principle. It was at first employed only in subacute cases, that is, those cases with which you all have become familiar, in which after from four to six weeks of the usual treatment with internal remedies and injections, the disease is apparently cured: in some instances the parts look perfectly normal, there is no discharge at or near the orifice of the urethra, but, by pressing on the bulbous portion, a drop of grayish or yellowish white fluid is squeezed out, in which the presence of typical gonococci can easily be demonstrated. In other cases the discharge has completely ceased, but returns either as soon as the treatment is stopped or on the slightest provocation by drinking, seminal emissions, sexual excitement, or intercourse. Early in the eighties, I had begun to use instillations of solutions of silver nitrate into the deep urethra, as recommended from the clinic of Guyon, in Paris, by Jamin, in his *Etude sur l'urétrite chronique blennorrhagique*, Paris, 1883. Jamin has mentioned the application of the instillations to circumscribed foci of the anterior urethra, particularly of the bulbous, but advises great caution because the solution would quickly flow through the urethra toward the meatus before it could be rendered innocuous by precipitation on the diseased portions or by decomposition. From previous experience with irrigation of the anterior urethra with solution of mercury bichloride, silver nitrate, potassium permanganate, etc., I had become convinced that the *mucous membrane showed much less irritation, subjective and objective, when such solutions were allowed to flow through the urethra in a retrograde direction, that is, from the bulbous to the meatus, than when administered in the contrary direction from the meatus to the bulbous*. I am unable to give a satisfactory scientific explanation for this difference, but I found it confirmed when, in those subacute cases of gonorrhœa, I injected by means of Guyon's syringe, up to 3 c. c. m. of solutions of silver nitrate from $\frac{1}{4}$ to 2 per cent. (grains $1\frac{1}{2}$ to 10 to the ounce), kept it in the urethra for several minutes by closing the meatus between two fingers, and then allowed it to ooze slowly out of the meatus. This pro-

* Read before the Section on Genitourinary Surgery of the Academy of Medicine, New York, April 15, 1903.

cedure caused a certain amount of burning and a temporary increase of secretion, but of much less intensity and duration than might have been expected, and was followed by a decrease of the discharge lasting for several days.

The syringe used for these injections is a somewhat enlarged edition of the old Braun's intra-uterine syringe. It is made of hard rubber with a glass barrel of about 3 c. c. m. capacity; the syringe ends in a blunt conical point, which fits in to the base of a thin hard rubber tube, slightly bent toward the olive shape point, of 16 to 18 of the French scale. The opening of the tube is located in the side of this bulb, so that the fluid is not easily projected beyond the point of the syringe itself. A Keyes's or Ultzmann's syringe is used where the meatus is too narrow, or in exceptional cases a piece of very fine elastic catheter, instead of the hard rubber tube. Whenever possible, the rubber instrument is preferred to the metallic points, which, even if sufficiently warmed, cause a more disagreeable sensation to the mucous membrane. Lubricated with the injection fluid (protargol, argonin, albargin), or some other lubricant, the point of the tube is carefully inserted within the orifice and quickly passed as far as the bulbus. Then the syringe is slowly emptied while the meatus is closed between the fingers of the left hand. The syringe is then withdrawn with the meatus still closed. After two minutes or more, the fluid is allowed to escape and usually another syringeful is injected. Finally, some absorbent cotton is placed in front of the meatus to absorb the excess of fluid oozing out. The burning sensation, which usually follows within a few minutes, has rarely been intense enough to require the injection of a solution of cocaine. Usually, after from five to ten minutes, it begins to lose its intensity, and generally disappears within an hour, or at the latest, after the first micturition. There appears also an increased discharge, frequently almost cheesy looking, due to the precipitation of silver chloride; after ten to twelve hours, this diminishes or entirely disappears for several days. About eight or ten hours after the injections, the patient begins in the conventional way to use injections of some of the common antiseptic or astringent solutions (zinc sulphate, potassium permanganate, etc.). After four or five days an increase in the discharge may again be noticed when the silver injections should be repeated; usually the condition of the urethra warrants the application of a stronger solution than at the first time. In this way the treatment is continued until the discharge does not reappear, then the patient's own injection, and finally the

silver injections, are gradually discontinued. Towards the end, injections with the silver solutions are again made, while a test of the effects of beer or whiskey is allowed. Those subacute cases differ very widely in regard to the time and number of the injections required for a cure. I have been surprised on several occasions by the complete disappearance, after one or two silver applications, of a discharge which had persisted for months and had shown typical gonococci, and I was able to convince myself by later examinations that its disappearance was permanent. Whenever after a reasonable number of injections a cure or decided improvement has not been effected, an endoscopic examination ought to be made, which usually, will reveal some local conditions which explain the persistence of the trouble and require stronger local remedies.

It is necessary briefly to consider the question, under what conditions a gonorrhœa may be considered cured. It is impossible to keep all our patients under observation so long as we can some candidates for marriage, or to watch them up to the time of their death as in the opinion of some authors almost seems to be necessary. We must assume a more common sense attitude, and I should judge that we could concede a cure if discharge and gonococci have entirely disappeared and do not return after all treatment has been discontinued for several weeks and the patient has resumed his usual mode of living, particularly in regard to sexual intercourse and alcoholic habits. In private practice we can more readily assume the permanency of the cure, if the patient does not return, than we can in dispensary practice. As a symptom of the greatest importance, I closely watch for the disappearance of every trace of cloudiness from the first portion of the urine, particularly of the morning urine, even if some filaments or threads may remain. From long experience I have, like some other observers, reached the conclusion that it is not possible in all cases to remove all traces of threads; that the efforts to accomplish this purpose often do more harm than good; and that the presence of such filaments is not in the least injurious to the men themselves or to the women with whom they may have sexual intercourse, even if there are a small number of pus cells present besides epithelia, provided no traces of gonococci can be found on repeated examinations.

For a number of years I had been following this treatment in subacute cases with satisfactory results, sometimes even resorting to it while the symptoms of inflammation were still somewhat acute; but I had not thought of applying silver

injections in the earlier stages of gonorrhœa. There appeared, in 1894, an article by von Sehlen, *Zur Frühbehandlung der Gonorrhoe (Monatshefte für prakt. Dermatologie*, xviii, p. 596; also *Verhandlungen des 4. Congresses der deutschen dermatologischen Gesellschaft*). This paper has apparently received but slight attention; it is not even mentioned in the recent editions of E. Finger's much cited book. The author's early death may account to a certain extent for this neglect; perhaps, also, the circumstance that, about the same time, the irrigation treatment was resurrected by Janet and accepted by many physicians with unusual enthusiasm. Under these conditions it seems but just to pay a little more attention to von Sehlen's work, the more so as I am able to confirm almost completely the correctness of his opinion and of his statements.

Von Sehlen asserts that the time necessary for the cure of gonorrhœa under appropriate treatment is directly proportionate to the time that has passed since infection took place, that is, to the length of the interval between the infection and the commencement of treatment. Hence, treatment ought to be instituted as early as possible. By a very distinct and lucid tabulated report on 29 cases he tries to demonstrate that, under favorable circumstances, gonorrhœa may be cured within twenty-four hours if the treatment is begun within four days after infection; that even eight days after infection, in favorable cases, a cure may be effected within from three to six days, but that from eight to fourteen days after infection a longer treatment will be required. Early treatment, he states, may prevent the extension of the gonorrhœal process to other portions of the urethra and render the course a mild one, restricting it to the anterior region of the urethra, even when the complete disappearance of the gonococci cannot be immediately realized. This treatment tends to destroy the irritating agent of the disease as quickly and surely as possible without injury to the affected organ. For this purpose von Sehlen used the old reliable silver nitrate, but not in a 2 per cent. solution, as Welander and several French authors had done; but, as silver nitrate has been proved to possess antibacterial powers in solution as low as 1:10,000, he tried in every single case to select, in proportion to the degree of inflammation, the concentration which would guarantee sufficient antigonorrhœal action, penetrating into deeper layers of tissue, avoiding too severe effects on the inflamed mucous membrane. He began, therefore, with a solution of 1:1,000, injecting in recent cases by means of a small hand syringe, so that the anterior urethra would be tensely filled, dis-

tributed the fluid by rubbing movements, so that every part of the mucous membrane would be brought in close contact with the solution, and allowed it to flow out again. This manipulation was repeated several times, until the visible portion of the mucous membrane showed a whitish color from the precipitation of silver. Finally, he gently rubs a stronger solution, up to 2 per cent., without any instrument into the fossa navicularis and, as far as possible, dusts it with euophen. When the disease has already made more progress he begins the treatment with retrograde irrigation of the anterior urethra with solutions of 1:1,000 to 1:10,000 through an elastic catheter. Usually, the urethra accommodates itself in a remarkably short time to stronger concentrations, so that within a few days solutions of $\frac{1}{4}$ to 1 per cent. may be resorted to.

With my previous experience in the subacute cases, I was ready to follow von Sehlen's example, adopting his principles, but with some modifications. Instead of the ordinary syringe I employ the one heretofore used for the subacute cases, so as to place the silver solution as far as possible beyond the infected region of the urethra, in very recently infected cases about three inches from the meatus, in the more advanced ones as far as the bulbus. I do not believe that there is any danger, in this procedure, of carrying active gonococci into deeper portions of the urethra, particularly if care is taken that, after passing the fossa navicularis and closing the meatus, the solution is allowed to flow out drop by drop, so that as the point is advancing it is washed by the silver solution. After removal of the syringe I have followed von Sehlen's method, but have dispensed with wiping out the fossa; in the presence of a narrow meatus or some swelling of its lips it is impracticable at any rate. At first I used solutions of silver nitrate from $\frac{1}{10}$ per cent., later usually $\frac{1}{2}$ per cent., and higher concentrations. Where the inflammation was more intense and the mucous membrane very sensitive, I did formerly occasionally resort to thallin sulphate in a 7 per cent. solution, which has been shown to destroy gonococci. It causes quite severe burning at first, but rapidly develops a soothing, almost narcotic, effect; but aside from its high price it has some disagreeable qualities. Ichthyol in 5 per cent. dilution did not produce any favorable result, but the application of the method was greatly facilitated by the introduction into practice of the various organic silver combinations—the result of numerous endeavors to avoid the irritation due to the nitrate, the coagulation in the presence of chlorides, albuminates, and other chemical qualities—and to increase the power of penetration suffi-

ciently deep into the tissues to reach the gonococci, which had disappeared from the surface. The number of these preparations has increased so rapidly since the introduction of the pioneer, argonin, that it has become impossible for the single observer to give them all a fair trial. I have had experience with argonin, protargol, and albargin, less so with ichthargan and argentamine. The latter I did not find so irritating as has been asserted by some observers, certainly not in all cases; ichthargan seems to cause but slight burning. After an extensive trial since 1901, I have been very well satisfied with albargin, and later experience has confirmed the favorable opinion of this drug, which I had expressed in a previous publication. With few exceptions, it acts mildly and is very clean to handle. I believe, however, that every one of those remedies has its merits and may be used with advantage, the more so as one becomes better acquainted with its peculiarities. Argonin has been employed up to 10 per cent.; protargol, 2 per cent. to 4 per cent.; albargin, 1 to 5 per cent.; ichthargan, up to 2 per cent.; argentamin (more in the later stages), from 5 to 10 per cent., equal to $\frac{1}{2}$ to 1 per cent. of silver nitrate. Much stress has been laid by the originators of the various drugs on the percentage of silver contained in their combination. But it seems to me that other features help to determine the efficiency, and after all, I find that the solutions of the nitrate often prove to be the most reliable, the more so the longer the disease has lasted.

In spite of the milder effects of these newer remedies it cannot be denied that even the least offensive solutions cause a certain increase of inflammation and increase of secretion, at least a temporary one. It can hardly be denied that congestion and increased impregnation of the tissues with fluids in general, furnish a more favorable condition for the development of bacteria than a healthy mucous membrane with intact epithelium and normally contracted blood vessels. It therefore seems desirable that local inflammation, whether spontaneous, due to the introduction of the cocci, or artificial, due to the treatment, be removed or restricted as much and as early as possible, in spite of the fact that the gonococci are liable to rapidly penetrate into deeper layers of the epithelium. Hence, it suggested itself as practicable to use the gonococcicide injections only at stated intervals, to avoid cumulative irritation, and in the interval, to administer astringent and antiseptic solutions in the conventional way to combat inflammation. As a rule I prefer injections which form a sediment, the latter, like the dusting powders for the skin, furnishing a pro-

TECTIVE covering, separating the opposite surfaces of the mucous membrane, and to a certain extent rendering the cocci sufficiently uncomfortable to hinder their propagation. My favorite prescription is as follows:

Boric acid.....	1.5 grammes (24 grains);
Acetate of lead	) of each...75 centigrammes (12 grains);
Sulphate of zinc	
Glycerin.....	4 grammes (1 drachm);
Water.....	120 grammes (4 ounces),

which I shall briefly designate as the B. P. Z. injection.
(To be continued.)

THE EARLY OPERATIVE TREATMENT OF TUBERCULOUS OSTEITIS OF THE KNEE.*

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Except in rare instances when tuberculous disease of the knee begins on the tibial side of the joint, or in the periarticular tissues, the initial lesion may be referred almost universally to the femoral epiphysis. The clinical signs of its presence in that part of the bone are indicated with reasonable clearness for a considerable period of time before consecutive infection of the joint has taken place. The focal area may acquire quite sizeable proportions and the contours of the knee become much altered, before the suggestion of its epiphyseal location is lost in the gross infiltrations which attend the spread of the disease.

Although it is not generally practicable, at an early date following invasion of the epiphysis, to determine with accuracy the site of the focus, the clinical phenomena at a little later period in the development of the disease point to the inner condyle as the most frequent seat of the pathological process. This view of the location of the focus, its situation commonly in the inner condyle, is reinforced by the relatively greater exposure and frequency of trauma on that side of the articulation, as determining localization of infection. The knee joint is not immediately menaced by the presence of the disease in the epiphysis, and the search for the focal site may be deferred for quite a period of time with safety so far as regards liability of its extension into the joint.

The latter statement is frequently corroborated practically, in the early stage of the disease, while employing measures to restrain knee function for the therapeutic effect of rest on the epiphyseal lesion. The motive for the very general recommendation of rest treatment at that time depends, no doubt, on the fact that the focus is small and not in very close proximity to the articulation.

* Read at the seventeenth annual meeting of the American Orthopaedic Association, Washington, D. C. May 12, 1903.

and gives rise to only a slight amount of reaction inflammation in the joint. By the temporary abolition of knee function the encapsulation of the focus is greatly favored, and extension of infection is retarded and occasionally arrested. Failing, however, by protective means directed to restraint of the joint, to control the spread of the infective process in the epiphysis, the increase of disturbance referable to the inner condyle and musculature may be easily noted; this becomes still more evident in cases in which no restraint of knee function has been employed in the earlier months of the disease. In either instance the clinical signs are adequate for determining approximately the part of the articular end of the bone which is involved and the probable nearness of the focus to the articular surface. The symptomatology in this connection scarcely requires reference: The early reflex response of the muscles; periosteal infiltration over the condyles and the appearance of expansion or enlargement, especially of the inner condyle; and tenderness from digital pressure on the lateral aspect of the condyle, are among the more important signs. Another phenomenon associated with the foregoing at a later period, and indicating the impending involvement of the joint, is a reaction inflammation in the periarticular and synovial tissues. Until this is indicated by infiltration and effusion in these tissues it is safe to infer that the joint is in no immediate danger; indeed this condition may also be present in a well marked degree and for a considerable period of time, and still be non-tuberculous in character. It may be stated, therefore, that a well defined period of time, of variable length, intervenes between the appearance of appreciable signs of a tuberculous focus in the epiphysis, and the consecutive infection of the knee joint. Advantage may be taken of this opportunity to employ an early operative procedure to remove the tuberculous area from the end of the bone without intruding upon the joint or doing injury to the line of growing tissue beyond what the disease has already inflicted.

Diagnosis by the clinical signs has been emphasized for the reason that these may be generally relied on to locate the site of the disease, with sufficient accuracy for its contemplated removal by operation. In seven cases where the operative procedure to be described was adopted, the location of the focus was accomplished without other aid. Additional information may undoubtedly be derived from the correct interpretation of skiagrams skilfully made (Figs. 8 and 9)¹; but absence of technical knowledge in the appli-

cation of this diagnostic agent renders it valueless for the purposes of an operative guide. Reliance placed wholly on its showings might nullify the evidence derived from other entirely trustworthy sources.

The operative procedure recommended in this connection may be described as follows:

First: To trephine the condyle in the suspected locality. An incision about two inches long is made through the skin and underlying tissues on the lateral aspect of the condyle, exposing the capsular ligament, and the periosteum just beyond its margin. The periosteum and the margin of the capsular ligament are elevated together, at the point of intended perforation of the bone. With a half inch gouge, a circular button of bone, about three fourths of an inch in diameter, is removed from the condylar wall. The epiphyseal line is then penetrated in an oblique downward direction with a small bone curette, and a search is made with this instrument for the softened area of diseased bone; ordinarily the curette at once enters this area, giving the sensation to the operator of penetrating a cavity. The greatest extent of the diseased tissue, in the cases I have operated on, has been found on the distal side of the epiphysis, reaching close to the articular plate. There were well defined walls of condensed tissue limiting the focus in each instance, and, judging from the shape of the curetted cavity, the focus may sometimes have an irregular and rambling direction. Contact of the instrument with firm bone indicates the limits of the disease and removes all doubt of the complete evacuation of the tuberculous tissue. After thorough curetting of the affected area, the surfaces of the cavity are carefully touched with 25 per cent. solution of zinc chloride, passed into it on a probe covered with a pledget of cotton. Care should be used not to touch the margins of the incisions with the zinc chloride, that primary union may not be prevented. The bone cavity is flushed with a 1-2000 bichloride solution, and then filled with a 10 per cent. solution of carbolic acid and tincture of iodine in glycerin. As much of the latter as will not run out of the wound may be allowed to remain—the surface being wiped dry, and the periosteum and skin separately sutured.

Secondly: Correction of knee malposture. Flexion malposition incident to the epiphyseitis is relieved by open division within their sheaths of the hamstring tendons. This may be done through either a longitudinal incision over the outer and inner tendons respectively, or an incision obliquely crossing the popliteal space and exposing both groups. In any instance when flexor contraction does not disappear during anæ-

¹owing to the necessity of dividing this article into two parts, the figures referred to here will be found in the second part, in connection with the cases to which they belong.

thesia, division of the tendons is indicated, and is to be preferred to traction or forcible stretching, for overcoming the shortening of these muscles.

Theoretically, it would seem that forcible correction of such malposture was especially to be avoided, from danger of crushing-in the articular plate of the condyle, which the curetting operation may have weakened to a degree that would not withstand much leverage force.

After these combined procedures and the suturing and dressing of all operation incisions, the limb should be fixed at once in the straight position by a plaster of Paris splint (Fig. 2). As primary union of all operation wounds is expected, the patient may be given ambulatory privileges with crutches and high shoe at the end of a fortnight.

The removal of the tuberculous focus and, coincidentally, eliminating irritation from mechanical sources, and also from reflex muscle spasm by severing the flexor tendons, are calculated to place the joint in a condition to manifest immediate improvement (Figs. 10, 11, 13). Irritation phenomena promptly disappear, infiltration in the periosteal and capsular tissues is rapidly absorbed, and reparative efforts in the bone progress uninterruptedly. The duration of treatment is markedly shortened as compared with that incident to conservative methods.

Preservation of joint function in this connection depends in a large degree on the extent to which previous reaction inflammation has impaired movement. The exudate, being non-tuberculous, may be safely broken up at the time of operation, if motion in the joint after division of the tendons is not quite free. Careful movement of the joint in such cases should also be made at appropriate intervals after the operation. No interference with motion in the joint should be expected when the removal of the tuberculous focus has been made at an early stage of its development.

The earlier the attempt to remove the disease is made the greater the probability of there being but a single focus, and that a small one. There should also be expected at that time relatively less disturbance from muscular contraction and inflammatory exudates within the joint. Division of the hamstring tendons might thereby become unnecessary, and the complication from adhesions might be avoided.

The preservation of function in the flexors following the division of their tendons in the manner suggested, is an assured event if it is done strictly within the tendon sheaths. This pre-

serves the continuity of the muscles with their points of insertion during the ensuing tendon repair. In some instances, vicious contraction of the muscles necessitates extensive division of the tendon sheaths in addition to the tendons, fascia, etc., to obtain sufficient correction of malposture. It may then become necessary to ignore the future usefulness of the hamstrings, and depend on the flexion power which the gastrocnemius is capable of supplying. Such patients usually recover only a very limited amount of movement, and the loss of the hamstrings under these circumstances is not of great importance in performing good locomotion. The elongation of the hamstring tendons, also, by splitting and suturing, may if practicable be done when the shortening is great enough to require free division of all resisting tissues back of the knee.

The removal of a limited tuberculous focus from the lower end of the femur is not a new suggestion in the treatment of articular osteitis of the knee. As a method of early radical treatment, it appears to have been held in abeyance by uncertainty expressed regarding the ability to locate the epiphyseal focus, and also from the probable presence of multiple foci, which would not insure the entire removal of the disease. More than these, however, its development as an established operation in the early stage of tuberculous osteitis, has, apparently, been retarded by the claims advanced for the non-operative or conservative plan of treatment. The latter has been the almost universal plan of treatment covering the period of time between the invasion of the epiphysis and the infection of the joint. Its claims rest on the expectation of arrest of the tuberculous process by encapsulation or reparative osteitis in the presence of complete repose of the joint. Failure to secure such a result occurs in a large number of instances, not because the method properly applied is inadequate in selected cases, but chiefly from faulty application and indiscriminate use. In addition, there is the difficulty of obtaining the requisite cooperation during the long period of time that the conservative plan of treatment necessitates.

Its employment at a time when the tuberculous osteitis has advanced so far as to make it certain that only a limited restraining influence could be exerted on the disease, is no doubt responsible for many such cases passing into the stage of joint involvement in connection with its use. A radical operation for the removal of the epiphyseal focus at that time would often prevent the consecutive infection of the joint. When the latter event is impending, or has actually occurred, there is general agree-

ment among surgeons that the limitations of conservative methods have been reached, and that excision of the joint is demanded. Between the extremes of localization of the disease in the epiphysis and its spread from that point to the articulation, there appears to be no formulated plan of treatment aside from the conservative. The opportunity afforded by the intervening developmental conditions for an early radical procedure directed to the removal of the focus, would appear to have been but little appreciated or made use of in practice. The advantages from its extirpation, while it is still confined to the end of the femur, require no comment. In view of its accessibility to operative interference, the shorter period of treatment, the preservation of a greater amount of functional usefulness—when these may be obtained by measures so easy of application—one questions the propriety of recognizing the claims of conservative treatment beyond the time when the location of the disease in the epiphysis may be determined even approximately.

The plan of early operative, treatment presented by the writer has been tried in his practice, and its merits ascertained with a degree of assurance that warrants its further employment. Of eight cases in which it has been used, two (Cases VII, VIII) are still recent in point of time since treatment was begun. Their progress during that period, however, has been in keeping with cases which have been longer under observation and whose recovery is established.

In none of the recovered cases has there been a relapse or a lighting-up of the tuberculous process on resuming the use of the joint, after an appropriate interval of postoperative rest. Fixation of the joint has not been required beyond six months in any instance, and protection has generally been discontinued during the ensuing six months. Briefly, in the cases of more advanced development of the disease, the duration of combined joint repose and protection, following the operation, has not exceeded one year. The time consumed in the postoperative care of the joint has been relatively less in proportion to a shorter duration of the disease prior to operation, or when its advance had been retarded by rest treatment. In one case in which the focus had been present for about six months, recovery was established in seven months following the operation, with complete preservation of function in the joint.

It is not advisable to employ this procedure in cases that present evidences of even slight infection of the joint; no result better than that attained by resorting to atypical excision could thereby be secured. Failure to establish arrest of the process in the bone by early removal of the

tuberculous focus in no way impairs the result to be expected from excision of the joint if required later. In fact, the conditions of joint repose and the correction of malposture following the earlier operation might be regarded as good treatment preliminary to an excision. In the event of a recurrence of the disease *in situ*, there is nothing contraindicating a repetition of the curetting, provided the joint has not been invaded. Should the removal of diseased bone have been incomplete the vent established by the trephining operation provides a ready escape for the products of tissue degeneration, and greatly lessens the danger of infection of the joint. The accompanying memoranda of cases, which are chiefly in the nature of a preliminary report, will serve to illustrate some of the conditions for which the foregoing plan of treatment has been employed. End-result photographs were obtainable in only two cases in time to use in this connection—some of the patients living at a distance, and traces of two having been temporarily lost. The treatment employed was the same in all, except Case V, the division of the hamstring tendons being omitted in that instance from absence of contracture during anæsthesia.

(To be concluded.)

BRAIN-FAG, AND ITS EFFECTS ON HEALTH.

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Sydney Smith usually receives credit for having popularized the aphorism that "a man is always happy till he finds out that he has digestive organs." Functional derangements of the stomach and liver have long been known to exercise a baneful influence on the owner's enjoyment of the good things of life. But it has been reserved for this present epoch of over-civilization and *jeune siècle* refinement of speculation, to discover and deplore the injurious effects which overstrain of the organs of thought and sensation exercises over the other portions of the human frame. Thinking men have, of course, for many ages been conscious of such influence; but it was only in a very vague way. According to the celebrated author of the *Anatomy of Melancholy*, So-crates is answerable for the dictum:

Oculum non curabis sine toto capite,
Nec caput sine toto corpore,
Nec totum corpus sine animo.

A fairly accurate knowledge of the structure and functions of the central nervous system has been attained only within a very recent period

indeed. It is now well known that the human body, as in the case of other animals, is essentially formed of a series of minute conducting threads, called "nerves," each of which is connected at one end with one of the fundamental cells of which the various tissues are built up; and, at the other, with a nerve cell, which regulates all the functions of the latter. The rest is merely padding and protective covering—the "leather or prunello" of the complete organic structure. The nutrition of these physiological units is supplied from the blood, minute tubular vessels containing which ramify everywhere among those threads and cells of the body. The blood-vessels are themselves supplied by absorption, from the products of digestion within the alimentary canal; and the nutrient contents pass out, by a process of leakage, to the various tissues in their neighborhood. How the latter select their own pabulum from the constituents of the blood, and so skilfully repair the waste which continually goes on during the existence of life, is explainable only by the influence of a vital force—a power of organic life, the heart of whose mystery has not yet been plucked out by the scientific physiologist. It is, however, well-known that the amount of blood supplied to the tissues, and the peculiar selective power of the latter, by which they regulate their own nutrition, are both directly governed by the central nervous system. Accordingly, when the influence of the latter has been completely cut off from any portion of the living body, nutrition entirely fails, and local death is the result. When the demonstration of this connection has once been satisfactorily understood, it will be seen to follow, as a corollary, that if the nervous system is not in a condition to perform its usual functions, the nutrition—i. e., the health—of the whole body must suffer.

"Mens sana in corpore sano" is an adage old enough to be at least venerable. The idea connoted by the *mens* of the mediæval metaphysician, or *mind* of the average educated person of the opening of the twentieth century, is one which will be found on close examination to be sufficiently vague. What was the nature of the mind, and what was the nature of the soul, what functions they possessed in common, and how far they were to be regarded as separate organs, are questions which have agitated philosophers for untold centuries; and which, undoubtedly led, in their treatment by the Aristotelian schoolmen, to some of the most brilliant displays of speculative subtlety and logical brilliancy that the world has hitherto seen. The philosophers of ancient Greece, nearly every one of whom entertained the most elevated ideas of the functions of the

human intellect and displayed the keenest hankering for the immortality of thought and of the mysterious organ of its production, showed a painfully amusing degree of ingenuity in their endeavors to locate the seat of the spiritual portion of man. Plato and Democritus placed it in the head, throughout; Strato, between the eyebrows; Erasistratus, in the investing membrane of the brain; Herophilus, in the ventricular space in the interior of the brain; Parmenides and Epicurus, all over the breast; the Stoics, either in the heart or in the spirit about the heart; Diogenes, in the curved portion of the aorta, which, according to him, was filled during life with the vital spirit; Empedocles considered that it was distributed throughout the mass of blood; and Pythagoras divided the soul into two parts—of which he placed the *vital* portion in the heart, and the *intellectual* in the head. When the doctrines of the Christian faith were adopted by the nations of Europe, a period of truce was set to these "vain speculations." For many centuries little or nothing was added to the physical knowledge of the human body, and the teachings of Aristotle were accepted as final in the metaphysical domain. With the revival of learning, the restlessness of human enquiry again manifested itself; and as the knowledge of the intimate structure of the human frame slowly (and I may say, painfully) increased, new guesses began to be made concerning the habitat of the soul. With the very gradual growth of the physiological investigation of the nervous system the tendency to locate the soul somewhere within the brain became more defined; and a curious degree of ingenuity—half physical, half metaphysical—was displayed by various authorities in discussing the probabilities of the favored situation. Most would place it in the median plane—in an azygos, or non-symmetrical, organ. For instance, Descartes placed the soul in the *pineal gland*, Bonnet in the *corpus callosum*, Digby in the *sæptum lucidum*, Platner in the *corpora quadrigemina*, Haller in the *pons Varolii*, and Boerhaave in the *medulla oblongata*. It is rather hard to realize the serious defence of such speculations by men of gigantic intellect. Yet such is the history of human thought! The increasing use of the microscope and of the telescope, the free exchange and more rapid transmission of ideas which have developed to such a previously unthought of extent in the second half of the nineteenth century, have had the undoubted effect of checking the future developments of such discussions—at least among scientific men.

To the distinguished physiologist and physician, Gall, certainly belongs the merit of having

first strongly advocated the localization of the organs of thought in the superficial part of the brain. The name of this man is very generally mentioned in the present day with a certain amount of derision—as he is almost solely known to the general public as the founder of phrenology. Yet, “faddist” as he undoubtedly was, it is hardly any exaggeration to say that Gall did more to advance our knowledge of the structure and functions of the human brain than did all the scientists of his own, and of all preceding, ages. Even the exaggerations into which his great hobby of localization led him, had the effect of stimulating the observations of his contemporaries—if only for purposes of contradiction. No scientific facts are now better established than our knowledge that all the intellectual operations of the human mind are performed in the cells of the cortical layer of the brain; and that the functional activity of these, as well as of all other cells of the body, is accompanied by, and dependent upon, increased molecular movement. But what the mysterious force is, which guides and regulates these molecular movements, we know no more definitely than did Pythagoras or Democritus. The partition which separates the *known* from the *unknown* (and *unknowable*) is very thin indeed; so thin that we almost seem to be able to *feel* through it. But we cannot *see* through it: it remains as opaque as ever! Let us then reverently bow before the unseen Architect of our being; and, while we recollect that absolute and final knowledge on any subject has not hitherto been attained by man, let us try to utilize with profit what attainments we possess.

The superficial layer of the brain—the marrow-like mass which fills the interior of the skull—is densely studded with the *nerve cells*, of microscopic size, which collectively form the great imperial parliament that presides over the functions of all parts of the body. Every cell of every tissue of the body is more or less directly connected with these governing cells, by means of the telegraphic filaments which are known as nerves. As already mentioned, the nerve cells and nerve filaments (which are themselves formed of elongated cells) are dependent for their nutrition on the supply of blood, and this latter is in its turn regulated by the influence of the nerve centres. Hence it is that any derangement of the latter can never be limited in its results to its own area—it always transmits the ill-effects to distant parts.

Near the under surface of the brain, and in the slender continuation of its substance which passes down along the backbone, are placed the subsidiary centres which deal, in the first instance, with

the lower animal functions of motion, nutrition, etc. These, like all the others, are held in check by the higher centres above referred to.

We are now in a position to appreciate the evil effects which must result to the whole system from over-work of the brain. As the brain is now, so far as I know, always spoken of as the organ of thought, it is almost superfluous to add that by overwork of the brain I mean overwork of the intellectual faculties. In this age of over civilization and over refinement, of ceaseless hurry and worry, of ever recurring examinations for young people, and of never ceasing competition among their elders, when so large a proportion of the population is to be found crowded together in large cities, and when education is distributed by external pressure to the least fortunate members of the community, the organs of human thought are subjected to an amount of wear and tear which could not have continuously affected so many members of the human family at any previous date in the history of the world. Let us examine more closely the conditions and the consequences of such overwork. The brain, like all other organs of the body, receives during health a supply of blood fairly proportional to its activity at any given moment. The blood vessels here, as elsewhere, are provided with muscular and elastic coats; and their calibre is, accordingly, under the control of the nervous system. Where the nerve centres themselves become exhausted by overwork, they necessarily lose this control more or less completely, according to the degree of previous strain. In the state of health, a resting organ of the body will be found to have its blood vessels contracted, and the part will receive but enough pabulum for a vegetative existence. Where the same organ is passing into a state of activity, its blood vessels will be found to dilate instantaneously, and a greater proportion of the nutritive fluid is allowed to pass through, to supply the necessary loss by wear and tear. These changes in the circulation occur in the brain as elsewhere; but here they are even more notable, as the blood vessels of the brain are thin-walled and yielding, beyond those of other organs. Also, as occurs in other organs, this increase of circulation, which accompanies functional activity, always promotes the healthy nutrition of the organ—up to a certain limit. Where this process of overstrain has been too prolonged, the coats of the blood vessels of the part partially lose their elasticity and are slow to recover their ordinary healthy contractility. When the stage of exertion has been too much or too often repeated, the walls of the vessels tend to

approach a condition comparable to that of over-stretched india rubber, the minute blood vessels remain permanently dilated, a greater quantity of blood is found in them, but circulating more sluggishly; the exchange between the blood and tissues takes place more slowly, the circulation is less pure, the part is in a state of chronic congestion. As the nose of the tippler develops a tell tale blush during the period of festivity, which, in the earlier years of enjoyment, afterwards disappears—quickly at first, by and by more slowly—so is it with the brain of the over read or over worried man. In either case, the blush, after some time, tends to become permanent; and, in many cases, curious excrescences may form.

When such a state of circulation has become established in the brain, its functions are necessarily seriously impaired. The individual affected fails to preserve the same clearness of thought, the same degree of mental energy, of readiness of resolve, of quickness of resource, and of capability of continuous and determined action, for which he may have been formerly distinguished, and which had been so important to him in the daily business of life. This intellectual deterioration may be a source of ruin to a man whose success in business depends solely on his own activity.

But, in addition to this failure of the mental powers, there is, as will be easily perceived, I think, by the reader who has noted what has been already said, a marked deterioration of the general health. The well-known physiological fact that mental work tends to check the secretion of the gastric juice, tells rapidly on the digestive functions of those anxious and worried individuals who cannot, or will not, allow themselves a fair amount of rest after meals. This habit, when continued, tends, with the restlessness and sleeplessness which torture the unhappy owner of an overworked brain, to reduce him to the state of a morose dyspeptic, whose life is a burden to himself, and whose presence is unpleasant to others; and who has little to look forward to in life but the dreary accompaniments of a premature old age. Such are the evils which, with the innumerable smaller collateral ones, are brought on by the refusal to the organ of thought of its due share of rest. Such symptoms are commoner now than in former ages of the world; most frequently observed in the land of rapid progress—America; and induced oftener than in any other way by the too devoted worship of the almost universally presiding deity of this materialistic age—the Almighty Dollar.

THE COURSE AND DIAGNOSIS OF VARIOLA—BASED ON ITS LAST OUTBREAK IN NEW YORK CITY.

By WILLIAM L. SOMERSET, M. D.,

NEW YORK.

In the late fall of 1900, variola appeared in New York city after what may well-enough be called an absence of several years. There were many cases during 1901. There were more during 1902. At the present time, there is practically no variola in New York city. During the two years mentioned, every variety of case presented itself, from the mildest to the most malignant. In vaccinated subjects, attacks were slight or severe, according to the degree of immunity, but nearly all slight; in the unvaccinated, severe or slight (by reason of partial immunity acquired through heredity—for there seems to be no natural immunity from smallpox), but nearly all severe. From the viewpoint of either mortality or permanent disfigurement, the outbreak was mild; the proportion of slight cases to severe being—as it should be if vaccination is going on to the accomplishment of its perfect work—larger than ever before in similar outbreaks in this city.

Little need be said about severe cases. Their course is well known and they cry aloud their identity. If they are “discrete,” every lesion takes the full classical course, passes through every grade in the time prescribed, and completes its history with a mark, characteristic and not to be erased; if confluent, the eruption is equally distinctive save, as will be noted later, for a few hours during the macular stage; if malignant, the evident misfit between the clinical condition and the eruption is pathognomonic. The mild cases, however, may well give us pause. In them, the eruption may be profuse and superficial, or scant and deep-seated. It may abort at any stage. Other symptoms may be entirely lacking, or severe out of all proportion to the amount of eruption developed. Where the entire evidence consists of two or three nondescript pimples, surely a doctor is not called! Among such cases there must be a number that fail entirely of recognition. One illustrative case may be cited. A father applied, on his way to work, for permission to visit his child, who was sick in hospital with variola. A single, non-characteristic lesion, ambushed in several days’ growth of beard, led, under the circumstances, to further search. A half-dozen, or so, of lesions were found sufficiently characteristic to procure the man his permit, good for twenty-one days at least. He confessed to no symptoms whatever, and considered the whole

proceeding worse than nonsense. He did not catch smallpox, however, and his vaccination did not "take." In view of such cases we must, also, admit the occurrence of smallpox without eruption—the *variola sine variolis* of two or three generations ago, when they drew on the inexhaustible vocabulary of dermatology for a distinct descriptive term with which to tag every modification due to vaccination.

These modified forms of variola most frequently lead to uncertainty as to whether or not they are varicella. The two diseases certainly have many resemblances. Speaking broadly, the evolution of the individual lesion in each is the same; no portion of the skin is exempt from either; both attack mucous membranes. Varicella can vary from an eruption most "abundant," to one of a half-dozen lesions—though they are seldom so few. It can present many pustules, or one, or none, and it can, and does, in many cases, invade the palms and soles freely. The patient, also, may be very sick in an attack of chickenpox, with a well marked period of invasion. But, while each can, in a general way, produce the results attainable by the other—let it be borne in mind that reference is made to the milder forms of discrete variola only—each presents distinctive features in the character of the lesions, their distribution, and order of appearance. If a case of variola has any face or scalp lesions, they will be the oldest, as indicated by their progress; varicella shows first on the trunk. If, in variola, the lesions are abundant, they will be most so on the face—in varicella, on the trunk. Variola can produce lesions—numerous or few—on the extremities with few or none on the trunk and face. Varicella presents more lesions on the trunk than elsewhere. Variola does not produce vesicles in twenty-four hours. Varicella is seldom seen before vesicles have formed. If it is so seen, there must be a delay, for on vesicles, or their remains, the diagnosis must be made. Varicella vesicles, or some of them, in any case, are translucent, their epidermic covering being scarcely appreciable to the eye—save that the apparent drop of serum on the skin keeps its form and position: these vesicles, furthermore, are never umbilicated, but, when beginning to dry down, they present at their apex crusts which require close inspection to be distinguished from umbilications. In a variola, most, if not all, vesicles become pustules. In a varicella, it is not so (the term "pustules" is not intended to include those infected sores, so common in varicella, due to outside infection, after the vesicles have ruptured). Variola may present an "abundant" eruption and not a single lesion go on to vesiculation. Any erup-

tion seen after a known duration of twenty-four hours, and without vesicles, is not varicella. These vesicles may be very small, may have very little fluid in them, so that they appear and perhaps feel like papules. But varicella has no papular stage, i. e., no hypertrophy of epithelium occurs between the initial macule and the subsequent bleb. The elevation of a chickenpox lesion is due, from the start, to the pushing up of the outer epidermic layer by exuded serum. Concerning lesions succeeding each other in point of time, so that early and late appear side by side, it can only be said to be usual in one and exceptional in the other. Concerning palms and soles, it is safe to assume that a varicella producing lesions there, will surely produce many lesions on the trunk; a variola may show a lesion or two on a palm or sole and little or nothing elsewhere. Seen later, in desiccation, many lesions of chickenpox will give evidence of having ruptured while full of fluid; the greater number of variola lesions dry down under their unbroken epidermic covering. In general, when the decision rests between these two diseases, if it is variola, the pathognomonic lesions will be found on the face or extremities; if varicella, on the trunk.

A face invaded by variola, confluent in the macular stage, often bears a striking resemblance to the face of measles. There will be no increase in the lacrymal flow and no photophobia. The period of invasion will be shorter, and the symptoms remit as the eruption appears. In measles this is not so. Variola, when not malignant, is never confluent throughout thus early, and the arrangement of the discrete lesions bears no resemblance to the "scalloped" arrangement of measles. This in the macular stage. If seen at the beginning of papulation, the resemblance may persist, as the hyperæmia in measles may be sufficiently intense to produce a distinct unevenness of surface—a pseudo-papulation. This appearance is dissipated if the skin is put on the stretch. Malignant smallpox bears no resemblance to measles. Malignant measles does not occur in New York city.

Syphilis, in support of its reputed ability to simulate any skin condition, sometimes puts forth secondary manifestations in imitation of variola, but the imitation is a poor one, even when our attention is confined to the individual lesions. The macules of syphilis are fainter in color—lacking acuteness. Some of them, in any given case, will be too diffuse for variola—lacking distinctness of outline. The pustular syphilide is seldom the first secondary eruption. When it has been preceded by other "secondaries," the condition of skin is remote from the possibilities of

variola. When not so preceded, the lesions, or some of them, will be acuminate; restricted in their distribution; variable in size; and they, or some of them, will present infiltration (induration) about them sufficiently marked to be felt. A smallpox pustule cannot be pustular *ab initio*. Add to the above, the possibility of evidence from primary sore; the probability of mucous patches; the certainty of characteristic glandular involvement, and there is really no room for error—save in the possible event of a patient having similar lesions of the two diseases synchronously. A variola of a dozen, or so, lesions would go far ere it found a more secure hiding place than a skin diversified with the possibilities of secondary syphilis. Yet, if these smallpox lesions are well developed, whether as “shotty” papules, umbilicated vesicles, or full, rounded pustules, they may be picked out on sight, for such lesions are all foreign to syphilis. Syphilitic lesions are spoken of as umbilicated. The appearance giving rise to this description is, as in varicella, the beginning of desiccation at the apex of the lesion.

As already intimated, malignant cases were never, relatively, so few as in this last outbreak. It may be well, here, to refer to the frequent misuse of the word “hæmorrhagic” in connection with variola, the meaning intended being “malignant.” Any case of variola may present vesicles whose contents are blood. Confluent cases usually present hæmorrhages of greater or less extent on the legs. These cases are not malignant. A fairly “abundant,” discrete eruption, hæmorrhagic throughout, is not invariably fatal. Malignant cases usually show few or no hæmorrhages, so far as the skin is concerned, yet they are invariably and rapidly fatal. They present as their first efflorescence—and, usually, their only one—a profuse scarlatinal eruption. There is intense congestion of the face. The eyes are injected. Tongue and throat are not affected, as they are in scarlet fever. The patient is, furthermore, evidently too near death for the first twenty-four hours of a scarlatina.

In eliminating diseases of the skin and “drug” eruptions, the limitations of variola must be noted. Smallpox does not produce a pustule without a preceding vesicle, nor does it produce an “abundant” eruption on some small area of skin and nothing elsewhere. The eruption, if “abundant,” must be general; even if the lesions are few—say, no more than twenty—they will be found on face, trunk, and extremities. There is a general correspondence in size between lesions of the same kind in any given case. Pustules are not formed in a day or in two days, nor are new

lesions presented daily for a period of two weeks. An extensive purpura, either diffuse or petechial, is foreign to smallpox. Itching is not a symptom of variola, and the great majority of smallpox lesions reach maturity without rupture. Smallpox—modified—has not acquired any new capabilities. It simply fails, more and more, to live up to its former standard. The disease may abort at an early stage of the eruption, or before there is an eruption. The lesions may be few and dilatory in the order of their appearance. But there is no new rôle; nothing not accounted for by diminished virulence of contagium and diminished susceptibility of persons exposed.

83 LEXINGTON AVENUE.

THE EFFECT OF LEMON JUICE IN THE MIXTURE KNOWN AS LEMONADE UPON TYPHOID POLLUTED WATER.*

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The investigation which I report was prompted by a newspaper statement purporting to come from the health department connected with one of the leading municipalities of the United States, that the amount of lemon juice ordinarily contained in the mixture known as lemonade was sufficient to render inert any typhoid bacilli that might be contained in such mixture, and that waters contaminated with typhoid were safe to drink when made into such a beverage. The investigation was carried on, using three distinct methods for testing, and the results were confirmed by a duplication of each test.

METHOD I.

In an ordinary glass of sterilized distilled water there was placed the strained juice of one half of a large lemon. This mixture, as shown by tests, was as strong as any that would ordinarily constitute a pleasing beverage of this character. In this mixture there was introduced 1 c. c. of a forty-eight hour old broth culture of typhoid bacilli.

After the lapse of periods of time of five, ten, fifteen, twenty, twenty-five, and thirty minutes, respectively, 1 c. c. of the lemonade typhoid mixture was introduced in each of three tubes of plain agar, lactose litmus agar, gelatin, and plain broth.

All tubes, with the exception of those of gelatin, were placed at an incubating temperature of body heat. After twenty-four hours there was distinct cloudiness in most of the bouillon tubes, with the exception of one five-minute tube, two of the fif-

* Read before Laboratory Section, American Public Health Association, at Washington, D. C., October 26, 1903.

teen-minute tubes, and two of the thirty-minute tubes. These tubes failed to reveal growth.

One fifteen-minute lactose litmus agar tube and one gelatin tube failed to reveal growth. It appeared to the writer that the failure to get growth in the instances stated was not due to the organism being destroyed by the germicidal action of the lemon juice, but because the presence of the small amount of free acid in the culture media had inhibited growth. In order to ascertain if this view was correct, culture medium was prepared, and after sterilization, minute quantities ranging from $\frac{1}{20}$ of a c. c. to $\frac{1}{2}$ of a c. c. of lemon juice were introduced to each 10 c. c. of medium.

Such tubes were inoculated with typhoid bacilli. In about thirty-two per cent. of the instances the typhoid organism failed to grow. Check cultures of the same medium without the addition of lemon juice revealed decided growth in each instance. It seems fair to assume that Method No. I, as determining the germicidal action of this strength of lemonade to the typhoid organism, is not reliable. In view of these circumstances the second method was tried.

METHOD II.

In this method, forty-eight hour broth cultures of typhoid bacilli were prepared, and into each culture there was introduced a sterilized glass rod. After a few minutes' immersion the rods were removed and placed in individual sterilized test tubes, so that any material adhering to the rod would become dry. A lemonade mixture similar to that used in Method No. I was prepared, using the same proportions of lemon juice and water, but omitting the typhoid culture.

The typhoid infected rods were placed in the mixture and after the lapse of periods of five, ten, fifteen, twenty, twenty-five, thirty, forty, and fifty minutes, the rods were removed and placed into different tubes containing 10 c. c. each of sterilized distilled water. The object of this procedure was to cause the removal of any lemon juice that might be present. After being thoroughly washed in the water the rods were introduced into ordinary culture broth. After twenty-four hours at the incubating temperature there was not a single failure to obtain growth. In order to substantiate this result the third method was tried.

METHOD III.

Sterilized silk threads were saturated with a forty-eight hour old culture of typhoid bacilli and the threads allowed to dry. All threads were placed in the lemon mixture, and after twelve hours' immersion were placed in sterilized distilled water. After being washed in the water the threads were placed in culture broth. In

not one instance covering a test of twenty-three threads was there failure to obtain growth in the culture broth.

From the results obtained the following conclusions would seem justifiable:

First.—That lemon juice in the proportion given has very little, if any, germicidal action upon typhoid bacilli.

Second.—That this method of treating water to prevent a possible typhoid infection should be discouraged.

Correspondence.

LETTER FROM PARIS.

Marie Raguene, the "Miraculée."—Women Physicians Among Mohammedans.—Overcrowding in the Profession.—The Alcohol Question.—Lead Pencils as Vehicles of Infection.—The Diminishing Birth Rate.

PARIS, October 12, 1903.

Interest continues to be shown in the case of the woman of Brest who, having lost her speech when twelve years of age, has recovered it after the lapse of twenty-eight years. People are still travelling to the spot to see her. The woman, Marie Raguene, has informed the representative of a Parisian newspaper that she lost her voice after brain fever. She was an orphan and she went from house to house after work, until a farmer took pity on her forlorn condition and engaged her to look after his cattle. Between eight and nine o'clock on the morning of Wednesday, July 15th, as she was with her cattle in a field, seated with her hands joined in prayer for France and Brittany, she saw an old man approaching. She arose to her feet, but the stranger reassured her. "Do not be afraid, my daughter," he said, "I have not come to do you any harm, but to bring to you the favor for which you have so often prayed. I restore to you the power of speech." Without a moment's reflection the woman exclaimed: "Oh, mon Dieu, are you the good Lord?" "No," answered the old man, "but I come with a mission from him; do not be puffed up with the mercy which you have just obtained, but pray on and pray often, as the world is not improving, but is going from bad to worse." The woman threw herself on the ground and, when she recovered, her visitor had vanished. She describes him as an old man with a long white beard, attired in a black overcoat, a hat of the same color much the worse for wear, patched white trousers, and shoes which could scarcely be warranted to keep the mud out. As for Marie Raguene, "*La Miraculée*" as she is now styled in the district, she is a healthy(?) working person, rather small, but well built, with bright eyes and a profusion of hair which is beginning to turn

gray. She has never been regarded as an hysterical subject, but her marvellous vision and its extraordinary result are, naturally, suggesting some theories on that point.

The powers that be in Algeria are instituting the "lady doctor" in each village where the Mussulman population is sufficiently large to require such accommodation. Therein the French government is following the example set by the English in India and by Austria in Bosnia. There is still any amount of room for the lady "doctor" among the Mohammedan communities in many parts of the world. In this matter England was the pioneer and still remains ahead. In Germany last year only fourteen women were admitted to the medical profession, and, of these fourteen, only six were Germans. This country and Switzerland are in advance of Germany, but neither turns out so many fair physicians as England. Great Britain by virtue of her hold on India is the first Mohammedan power in the world, and many British Moslem women are still without the benefit of European medical knowledge.

This is the time when the medical man in "the States" is confronted with the fact that his profession is being overcrowded. The medical colleges dotting the country are opening their doors for another year's work and preparing to graduate a large class for 1904. To many the situation appears fraught with peril, but consideration of the condition in France shows that, for the Gallic medicus, things are even less productive of hope. In France the number of medical men is constantly increasing. Reasons which do not obtain in America are in force here as accounting for the increase. The compulsory military service, according to many, is at the bottom of a great many medical vocations, for, though every Frenchman is obliged, upon entering his twenty-first year, to serve three years in the army, those who contemplate entering one of the liberal professions are exempted from two years of the required time and are compelled to serve one year only. As between medicine and law, the former profession is chosen, it being considered that success is more likely to be obtained in medicine. The situation is such that medical men are serious in advocating the abolition of the exemption clause in the military service law. Dr. Brouardel, however, does not take this view, and he points out that in Germany, where medical men are not exempted from military service, there were nevertheless 1350 men who received medical diplomas last year against 800 ten years ago. Dr. Brouardel argues that the augmentation in the number of matriculates may be in great part accounted for when we consider the increased social prestige of the profession, and if the exemption clause were done away with, it would not, he asserts, help matters in the least.

The question of alcohol in France is one that is of literally vital interest to the state, and it is much to be regretted that the French themselves, though greatly moved by the evils that they bring on their own heads, take at the most an academic interest in the subject. The most virulent diatribes against absinthe, for instance, are delivered under the inspiration of a tall glass of that insidious soother. M. Duclaux, director of the Pasteur Institute, is heading a movement against total abstinence, and newspapers and leaflets containing his views are being widely circulated at the expense of the syndicate of wine and liquor merchants. M. Duclaux asserts as his opinion that alcohol is a most useful alimentary substance. In so stating he is not guided by his personal observations or experiments, but rather by the conclusions reached by two American investigators. The fact that other observers differ in their opinions from those of the Americans does not seem to have influenced Dr. Duclaux. His attitude, needless to remark, meets with the unqualified approval of those most interested, and many of the seductive decoctions of John Barleycorn are now advertised as "*aliments indispensables pour la santé.*" M. Duclaux's attitude, however, is an honest one; he prefers to admit the value of alcohol and to rely upon popular education in the cause of temperance, rather than to deny facts capable of demonstration. The temperance and total abstinence societies of France, however, cannot be said to view with calmness the injudicious telling of such dangerous truths.

An epidemic of diphtheria in the schools of Paris some time ago caused an investigation which developed the fact that the germ in question was principally transmitted on lead pencils which were kept for the common use of the children. Suggestion has been officially made to the authorities that each child be compelled to use an individual pencil, and unconventional folk are hoping that another epidemic will not break out before official red tape permits of the suggestion being followed.

The comparatively few children one sees in Paris and throughout the country is a circumstance to cause frequent comment by the observant. According to Pinard and Richet, from the latest statistics (those of 1896), out of 2,027,739 marriages, there were 233,369 in which after a duration of from fifteen to twenty-four years there were no children, a percentage of 11.5. No account was taken of children who had died. M. Bertillon, for Brazil, found that the proportion of childless marriages lasting from fifteen to twenty-four years in which children had been born but had died was about two per cent. It would seem that the rate of sterility due to what may be termed unavoidable causes is practically the same in Paris as in other

large towns. It is unfortunately, however, the determination of French parents among almost all classes not to have more than a certain number of children, and until the time comes when this determination can be altered the birth rate of France is likely to continue to fall.

Therapeutical Notes.

The Treatment of Seborrhœa.—Sabouraud (*Les Maladies séborrhéiques. Seborrhée, Acnés, Calvitie*, Paris, 1902) considers complex preparations to be highly recommended, as he considers that the combined action of several mixed antiseptics is greater than that of them taken severally. For instance, he recommends the following lotion and ointment:

R Alcohol, 90 per cent. } of each.....100 grammes
Acetone } (3 1/8 ounces);
Oil of cade.....10 grammes (150 minims);
Precipitated sulphur.....20 grammes (5 drachms);
Pyrogalllic acid.....2 grammes (30 grains);
Chrysophanic acid.....0.20 grammes (3 grains);
Mercury bichloride.....0.40 grammes (6 grains).

M. Ft. lotio.

R Precipitated sulphur }
Resorcin } of each.....1 gramme
Salicylic acid } (15 grains);
Pyrogalllic acid }
Mercury sulphide }
Oil of cade } of each.....15 grammes (1/2 ounce);
Cacao }
Lard10 grammes (2 1/2 drachms).

M. Ft. unguent.

For Acute Urethritis and Cystitis.—*Ιατρική Πρόδος* for August 15th ascribes the following to Dr. W. Klotz:

R Sodium salicylate } of each.....20 grammes
Tincture of hyoscyamus } (5 drachms);
Peppermint water.....120 grammes (40 ounces).

M. One teaspoonful to be taken three times daily in water.

Trachoma.—*Revue française de médecine et de chirurgie*, for November 2, 1903, gives the following formula for conjunctival application in trachoma:

R Copper sulphate.....1 gramme (15 grains);
Orthoform1/2 gramme (7 1/2 grains);
Holocaine40 centigrammes (6 grains);
Gum tragacanth.....10 centigrammes (1 1/2 grains);
Distilled water.....a sufficiency.

M. Make into a pencil.

Insomnia.—*Revue française de médecine et de chirurgie*, for March 15, 1903, recommends in this condition the following "calming potion":

R Extract of belladonna.....25 centigrammes (3/4 grains);
Sodium bromide } of each.....10 grammes
Cherry laurel water } (150 grains);
Glycerin15 grammes (225 grains);
Trional in oil, 5 per cent....60 grammes (2 ounces);
Mucilage of Irish moss.....70 grammes (2 1/8 ounces).

M. Tablespoonful at bedtime.

Treatment of Acute Amygdalitis.—Dr. Samuel Floersheim, in *Medical Council* for November, 1903, reiterates his statements regarding the treatment of acute amygdalitis in our issue of August 5, 1901. He saturates a camel's hair brush with pure tincture of iodine and paints the inflamed area rapidly, but thoroughly. If the burning is

excessive, a gargle of warm water may be used, but slight burning is necessary. A second application may be required twenty-four hours later, but never a third.

The Paroxysm of Malarial Fever.—Dr. Arthur Hamilton Stewart Roberts states in the *Dublin Journal of Medical Science*, for November, 1903, that during the late war in South Africa, he was accustomed to wrap the sufferer from a malarial paroxysm in blankets, give a purgative, followed by hot drinks, and then administer the following prescription:

R Antipyrin2 drachms;
Aromatic spirits of ammonia.....2 drachms;
Chloroform water, enough to make.....8 ounces.

M. Two tablespoonfuls every four hours till paroxysm is over.

Diarrhœa in Typhoid Fever.—Dr. L. F. McDowell, in the *Dublin Journal of Medical Science* for November, 1903, gives the two following formulae:

R Paregoric30 minims;
Aromatic sulphuric acid.....15 minims;
Spirits of chloroform.....10 minims;
Water, enough to make.....1/2 ounce.

M. For one dose.

R Bismuth carbonate.....10 grains;
Sodium bicarbonate.....5 grains;
Aromatic chalk powder.....20 grains;
Tincture of opium (B. P.).....5 minims;
Spirit of chloroform.....10 minims;
Sodium salicylate } of each.....10 grains;
Powdered tragacanth }
Water, enough to make.....1 ounce.

M. One dose.

Cinchona and the Phosphates.—These agents combine well, according to *Presse médicale*, for October 28, 1903, in the following mixture:

R Sodium phosphate.....7 grammes (105 grains);
Water10 grammes (150 minims);
Syrup of cinchona.....500 grammes (10 2/3 ounces);
Phosphoric acid.....10 drops.

M. A wineglassful half an hour before eating.

An Antigastralgie Elixir.—*Presse médicale*, for October 28, 1903, has the following:

R Liquid pepsin.....4 grammes (1 drachm);
Cocaine hydrochloride.....10 centigrammes (1 1/2 grains);
Narceine5 centigrammes (3/4 grain);
Hydrochloric acid.....5 drops;
Simple syrup.....200 grammes (6 2/3 ounces).

M. Two to four tablespoonfuls daily.

Internal Treatment of Diphtheria.—*Journal de médecine de Paris*, for November 8, 1903, quotes Weichselbaum's prescription for the systemic treatment of diphtheria:

R Mercury biniodide.....50 milligrammes (3/4 grain);
Potassium iodide.....20 centigrammes (3 grains);
Water4 grammes (1 drachm);
Dissolve, and add
Syrup of hydriodic acid enough to make
120 grammes (4 ounces).

M. Five to ten drops on the tongue, every twenty minutes, day and night.

Ulceration of the Cervix.—Lutaud in *Gazette de Gynécologie* for November 1, 1903, advises:

R Iodoform40 grammes (10 drachms);
Salicylic acid } of each.....10 grammes
Bismuth subnitrate } (150 grains);
Camphor5 grammes (75 grains).

M. Apply directly to cervix. The camphor masks the odor of the iodoform.

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Editor. Associate Editor.

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NEW YORK, SATURDAY, NOVEMBER 21, 1903.

THE MILK SUPPLY OF LARGE AMERICAN TOWNS.

A vast amount of interesting information is contained in a brochure recently issued by the Bureau of Animal Industry of the Department of Agriculture, entitled *The Milk Supply of Two Hundred Cities and Towns*, by Henry E. Alvord, C. E., and R. A. Pearson, M. S. Of the tables given in this publication, the first relates to the thirty-eight American cities that have each a population of 100,000 or more. Selecting certain of the data found in this table, we gather, in the first place, that the consumption of milk varies considerably in different cities. Boston leads, that city consuming daily 1.17 pint of milk per capita, but a footnote reads: "Large portion consumed by non-residents for noon lunch." This does not necessarily indicate that people who live in Boston or do business there have a greater predilection for milk than those of our other large cities, for it is probably the case that the day population of Boston is more in excess of its night population than that of other American business centres.

The smallest per capita daily consumption, 0.27 of a pint, is attributed to New Orleans. No explanation is given, but it is set down that tubercle bacilli have been found in New Orleans milk during the year that the report covers, and perhaps the inhabitants avoid milk to a great extent on that account. This inference, however, has no great sup-

port, for we find that in both Louisville and Baltimore the daily per capita consumption is 0.39 of a pint, although both pus cells and tubercle bacilli have been found in Baltimore milk, while no pathogenic material has been detected in that of Louisville. The daily per capita consumption in Providence is an even pint, but it is explained that a portion of it is used in the manufacture of "butterine." The New York consumption, the milk being free from deleterious material, is 0.78; that of Philadelphia, where the milk is contaminated with typhoid bacilli and pus cells, is 0.46.

In the richness of the milk there is no remarkable variation, the percentage of total solids ranging only from 11.5 to 13, and that of fat from 2.5 to 3.7. As regards other qualities than richness in solids, the following remarks, relating particularly to Boston, may be taken to heart by the public: "The consumer wants his milk delivered early in the morning and insists that it must be fresh. He will not deal with one who would propose to deliver as late as 10 o'clock a. m., which is about the time the milk trains arrive. So the dealer is obliged to hold the milk, perhaps in his stable, through the day and over one night, in order that it may be delivered early in the morning."

THE LUNATIC AT LARGE.

On Friday of last week one of the most honored citizens of New York, Mr. Andrew H. Green, was murdered in front of his own house on one of the finest residential streets, in broad daylight and within sight of several persons, by a negro whom apparently he did not even know. The murderer seems to have been actuated by a blind determination to take vengeance for an imaginary wrong. In saying this we are by no means affirming that the man is insane; the question of his mental condition remains to be decided. But we do say that his horrible deed, whether he is crazy or not, should serve to call public attention anew to the great danger of allowing reckless persons with a grudge, real or fancied, to go unrestrained. It should serve also to check the too general popular impression that persons who are really sane are often wrongfully immured in lunatic asylums.

It seems strange that this negro, Williams, was not some months ago recognized as a dangerous

person, for he seems to have exerted upon the owner of a dwelling from which he had been legally ejected an influence not readily to be distinguished from intimidation, and, moreover, to have paraded before that person his grievance against Mr. Green, adding "I'll kill him if he don't let up." Though the person thus addressed does not seem to have informed Mr. Green of his danger, he declares, according to the published accounts, that he did mention the matter to several men of his acquaintance, including one who knew Mr. Green. It is strange, therefore, we repeat, that Williams's dangerous character and murderous intentions did not come to the knowledge of the police.

There are going about unrestrained in the community altogether too many persons seeking for vengeance for real or imaginary wrongs by violence or threats, and that this state of things is allowed to continue is highly discreditable to our civilization. To a very great extent, we are convinced, its continuance depends on the popular sentiment that most lunatics are harmless and that all suspected persons should be kept out of the asylum until they have done something outrageous. The loss of a precious life has been the penalty in the instance that has led to these reflections. Let us hope that it will not be without some good effect.

THE "DEGENERATE" AND THE "DEVIATE."

Though there are some of our neurological friends who would still cling to the term "degenerate," in its psychical sense, undaunted by its hackneyed employment by those who "write down" to the multitude, there are others who would prefer a word less falsely indicative. The subject was edifyingly discussed at a meeting of the New York Neurological Society held on October 6th, having been introduced by a paper entitled *The Advisability of Supplementing the Words Degeneration and Degenerate by Deviation and Deviate*, by Dr. G. L. Walton, of Boston. The degenerate, Dr. Walton argued, was only a person who exhibited certain deviations from the normal type, hence the words deviation and deviate seemed to him to be more accurate and less objectionable because they were independent of all theories.

But are the terms degeneration and degenerate misleading? To the ordinary mind they seem to

involve the conception of a lapse from the standard or average mental and moral make-up in the downward direction, that is, toward deterioration. Is not that what is intended to be implied? Deviation, however, may be in either direction, upward or downward, though it is perfectly true that when a man is said to seek the attainment of his objects by "devious ways" there is the implication of unworthy methods. We presume that a mental or moral paragon, if sprung from a stock of only the average fineness, might properly be termed a deviate, but surely Dr. Walton would not say that his deviation was of the nature of deterioration.

As a general thing it is not conducive to lucidity to replace old and well understood terms by new ones. Even if the terms long in use are, if strictly interpreted, expressive of a conception somewhat at variance with what is intended, it is well to remember that they have by common consent come to convey a meaning well understood by persons who pay particular attention to the matters to which they apply. But Dr. Walton does not seek to have deviation and deviate supplant degeneration and degenerate, but only to supplement them. If this fact is borne in mind, no confusion is likely to arise in the use of the words.

THE PURSUIT OF LITERATURE BY MEN OF SCIENCE.

It is a fact at once striking and significant that many men of the most distinguished scientific attainments have disclosed a tender feeling for the literary art. Sometimes in one of the recognized forms of polite composition—novel, verse, essay, drama; again in public speech or the informal sallies of private talk—some time, somewhere this longing for lithesomeness and strength, this lust for more complete and enduring expression, declares itself in no uncertain voice.

In our own profession this tendency is frequently observable. Is it to be condemned? We think not. Those who would do so forget the inherent catholicity of human faculty. Concentration, to be sure, is necessary to the attainment of specific ends; but the consequent wear and tear of attention must be offset by change of employment, or effort becomes dull, ambition frustrate. It has recently been computed that, in order proportionately to equal the exertions of a flea, a

man would be obliged to leap over the Eiffel Tower. This sounds humiliating, but we take courage, for fleas are peculiar animals—all bite and jump, with little margin for the larger sympathies. Efficient versatility is one of the surest signs of high endowment; the histories of many of the greatest minds disclose this truth. By contrast, there is a pseudoconcentration, a kind of barren rumination, recalling the experience of the pundit who stuck to nothing all his life—and did it well.

Casual wanderings into dialectics—the acquaintance with those devices of rhetoric that confer vivacity, pleasure, force—metaphor, simile, antithesis, personification, and what not—these and the analysis of style are indeed great sharpeners of the wits. The opportunity to strike a really effective blow in behalf of science does not disclose itself every day; there are long waits between efforts. Few, even among the most highly gifted, have been able during a lifetime to deliver more than a stroke or two. It is otherwise, or largely otherwise, with letters. Here the material, broad as human nature and yielding itself without the artificial coaxing of induction, is capable of endless synthesis. A moderate pursuit of letters is a great rest to the scientific man, especially to the scientific writer. This virtue—generally acknowledged by the knowing, let us hope—is commonly ascribed to an intellectual change of scene, bringing in its train that mental renovation, that “catharsis” of the emotions, so highly lauded by the Greeks. But this is not the whole story, not the complete psychological unravelment, at any rate. Over and above the pleasurable excitement of the matter, there is the scarcely inferior enjoyment of the manner. In scientific writing, the symbolism invoked to serve the ends of extreme definiteness is largely abstract, colorless, remote; in *belles lettres* it is concrete, vivid, familiar. The one usually addresses itself to the intellect, the other predominantly to the emotions. This, truism though it be, is but too often misread or but vaguely understood by those scientific writers who, grown weary of a stolid pen, would fain vary the sameness of consciousness by faring forth a little into fiction. The transition, however, is abrupt, enormous; only one who has tried it can fully know how

great. Yet the final result—surcease from the tire of harping on a single string—is surely worth the price. How true is this from middle age and onward! For the sturdy spells of the early years, with their blind vehemence of doing, are quickly gone. Soon the flame of the senses burns low; soon thought must replace the toil and the diversions of the hands. It is then that Fancy, grateful for her unleashing, brings back the fragrance of a rosier time. How old the truth, yet how little heeded! Even theologians and moralists have failed to work it out. In fact, not many centuries after the establishment of the Christian religion in Gaul, it became the habit of sickly, world-worn minds to seek the seclusion of the cloister. But theirs was a morbid, false Nepenthe. “Great men,” says Emerson, “have always confided themselves childlike to the genius of their age, betraying their perception that the absolutely trustworthy was seated at their heart, working through their hands, predominating in all their being. And we are now men,” he concludes, “and must accept in the highest mind the same transcendent destiny; and not minors and invalids in a protected corner, not cowards fleeing before a revolution, but guides . . . advancing on Chaos and the Dark.” Brave watchwords enough to kindle the ardor of either pen or sword.

J. LEONARD CORNING.

BRAWN VERSUS BRAIN.

Free libraries *versus* field sports! Of course it is not true, because not harmonious and proportional, to bring into antagonism two or more equally important factors in the formation of a perfect whole. There are those who unduly exalt the importance of sports, as there are those who incontinently insist on that of libraries. *In medio*, etc. A writer in the *Edinburgh Medical Journal* for November relates how, having visited a crowd at an athletic contest at Inverleith, he “was much struck by the character of the physique of those who stood outside the touch lines. Never before had he seen such a collection of bowed limbs, curved spines, tuberculous glands, and pigeon chests. For the moment he thought he was attending some hospital fête, or that the infirmary patients had escaped for an afternoon from the jurisdiction of doctor and nurse.” There is much shrewd sense in this writer’s comment, that “it is far better that these poor handicapped men

should breathe the pure sun-washed air of the people's park than that they should be closeted in the sunless halls of the Carnegie library.

... If these deformed and diseased citizens are not strong enough to take part in the games themselves, let us not prevent them, by any unctuous and short sighted advice, from acting the part of spectators. The majority, perhaps unconsciously, are giving themselves a better chance in the struggle for life." After all, both brawn and brain, to which we might particularly add lungs, are necessary, and physical well being is a necessary foundation on which to build an efficient mental superstructure.

ACUTE THYREOIDITIS DUE TO IODISM.

Acute inflammation of the thyroid gland from any cause is rare enough to enlist our interest. Sellei, of Budapest (*Archiv für Dermatologie und Syphilis*, lxii, 1; *Berliner klinische Wochenschrift*, September 14th), records a case of such inflammation following the ingestion of two tablespoonfuls of potassium iodide by a syphilitic patient twenty-four years old. The affection was accompanied by fever.

SOCIAL MEDICINE.

This term is perhaps more comprehensive than public hygiene, but not much more so, we should suppose. At any rate, it seems destined to be brought into general use by the establishment of a monthly journal, entitled the *Monatsschrift für soziale Medizin*, edited in Hamburg by Dr. M. Fürst and Dr. K. Jaffé, and published in Jena. The term social medicine is not altogether new, for in 1895 a journal called the *Monatshefte für soziale Medizin* was brought out. The first number of the new *Monatsschrift* contains forty-eight pages of reading matter.

A GENUINE TEMPERANCE ORGANIZATION.

The new antialcoholic league of the students of the University of Paris is apparently a model of what a temperance organization should be. By lectures, tracts, force of example, and other methods familiar to the various crank sodalities of our own fair land, but without their exaggeration, the Paris students will endeavor to prove to the people of France the value of true temperance. They will advise the use of wine, beer, and (hard) cider in moderation, principally with meals, and discountenance the use of brandy, gin, absinthe, and all spirituous liquors, as beverages. The truth, as they understand it, will be told; the value of strong alcoholic mixtures in their proper place

will be acknowledged and defended, their abuse rebuked.

THE ALCOHOL COMPRESS.

Perhaps this is an improvement on the old evaporating lotion. Ssaweljew (*Allgemeine medicinische Central-Zeitung*, 1903, 12, 13; *Berliner klinische Wochenschrift*, October 19th) reports its successful employment in such diseases as peritonitis and pleurisy.

Obituary.

JAMES MCFADDEN GASTON, M. D.,

OF ATLANTA.

Dr. Gaston, a surgeon of national reputation, died at his home in Atlanta, on Sunday, November 15th. He had reached the ripe age of seventy-nine years, and he died of an acute illness. During the civil war he was a medical officer of the Confederate service, and in that capacity he reached distinction. He had been the president of the American Academy of Medicine and of the Southern Surgical and Gynecological Association. He was a frequent contributor to periodical literature.

CORNELIUS COX WYCKOFF, M. D.,

OF BUFFALO.

Dr. Wyckoff, said to have been the oldest practitioner of medicine in Buffalo, died on Saturday, November 14th, of uræmia. He was also the last surviving member of the original staff of the Buffalo General Hospital. He had been the president of the Buffalo Medical Society, of the Medical Society of the County of Erie, and of the board of trustees of the Buffalo Eye and Ear Infirmary. Although eighty-one years old at the time of his death, Dr. Wyckoff was still a strikingly handsome man, and throughout his professional life he had been a man of distinguished prominence.

GEORGE JULIUS ENGELMANN, M. D.,

OF BOSTON.

Dr. Engelmann died on Monday, November 16th, in Nashua, N. H., where he was stricken with pneumonia while on a visit. He was fifty-five years old. He was born in St. Louis, and the greater part of his professional life was spent in that city, where he long ago attained to distinction as a gynecologist. He was one of the early members of the American Gynecological Society, to whose *Transactions* he was a distinguished contributor. Perhaps his best known literary work is his essay on Labor Among Primitive Peoples, but he was a frequent contributor to periodical literature, and many of his productions have appeared in our own columns. During the later years of his life he devoted a good deal of attention to demography and ethnology. It is but a few years since he moved from St. Louis to Boston. Personally Dr. Engelmann had in a pronounced degree the charm so often found in Westerners of German descent.

News Items.

Society Meetings for the Coming Week:

MONDAY, November 23rd.—Medical Society of the County of New York; Lawrence, Mass., Medical Club (private); Cambridge, Mass., Society for Medical Improvement; Baltimore Medical Association.

TUESDAY, November 24th.—Metropolitan Medical Society, New York (private); Buffalo Academy of Medicine (Section in Obstetrics and Gynecology); Richmond, Va., Academy of Medicine and Surgery; New York Medical Union (private); Rome, N. Y., Medical Society; Boston Society of Medical Sciences (private).

WEDNESDAY, November 25th.—New York Academy of Medicine (Section in Laryngology and Rhinology); New York Pathological Society; New York Surgical Society; American Microscopical Society of the City of New York; Philadelphia County Medical Society; New York Dermatological Society (private); Auburn, N. Y., City Medical Association; Berkshire, Mass., District Medical Society (Pittsfield).

THURSDAY, November 26th.—New York Academy of Medicine (Section in Obstetrics and Gynecology); New York Orthopaedic Society; Brooklyn Pathological Society; Brooklyn Society for Neurology; Roxbury, Mass., Society for Medical Improvement (private); Pathological Society of Philadelphia; Church Hill, Md., Society; Medical Society of Richmond, Va.; New York Celtic Medical Society.

FRIDAY, November 27th.—New York Clinical Society (private); New York Society of German Physicians; Yorkville Medical Association, New York (private); Philadelphia Clinical Society; Philadelphia Laryngological Society.

SATURDAY, November 28th.—New York Medical and Surgical Society (private); Harvard Medical Society, New York (private).

Change of Address.—Dr. George H. McGuire, to 593 East One Hundred and Forty-second Street.

NEW YORK, CITY AND STATE.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending November 14, 1903:

	Week end'g Nov. 7.		Week end'g Nov. 14.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	155	5	246	9
Diphtheria and croup.....	352	42	423	38
Scarlet fever.....	104	5	163	5
Smallpox	2	0	1	0
Chickenpox	44	0	71	0
Tuberculosis	250	139	314	154
Typhoid fever.....	93	25	102	14
Cerebrospinal meningitis..	..	1	..	3
Totals.....	1,000	217	1,320	223

St. Vincent's Hospital.—Invitations are out for a reception to be given to His Grace, Archbishop Farley, at the hospital on Monday afternoon, November 23rd.

The Elmira Reformatory has had an outbreak of diphtheria, twenty-five cases having occurred with three deaths. One and a half million units of antitoxine have been sent to the institution.

Dr. Frank W. Robertson, who succeeded Mr. Z. R. Brockway as superintendent of the Elmira Reformatory and has discharged the duties of that responsible position for the past five years, has tendered his resignation to the management, desiring, it is said, to take up practice in New York.

American Therapeutic Society.—The next meeting of the American Therapeutic Society will be held in New York city, June 2, 3, and 4, 1904. N. P. Barnes, Secretary, 212 Maryland Avenue, N. W., Washington, D. C.

The Lying-in Hospital at Seventeenth Street and Second Avenue had, during the month of October, 492 applicants for treatment, of whom 132 were admitted. One hundred children were born in the hospital. In the outdoor department, 330 applied for assistance in their homes and 233 were confined. The number of medical visits made was 977.

The New York Home for Destitute Crippled Children will have a benefit, in the form of a concert, at the Hotel Majestic on November 24th, at 8.30 o'clock. An artistic programme has been arranged. Tickets at one dollar each may be obtained of Mrs. De Bermingham, 106 West Forty-fifth Street, and of Mrs. A. L. Erlanger at the hotel.

The President of the Medical Society of the State of New York has appointed the following business committee, to prepare a programme for the annual meeting, January 26-28, 1904: Dr. H. A. Fairbairn, of Brooklyn; Dr. G. R. Butler, of Brooklyn, and Dr. Andrew MacFarlane, of Albany. F. C. Curtis, secretary, 17 Washington Avenue, Albany, N. Y.

The New York Medical Gymnastic and Massage Society desires to announce that a clinic is now in operation under its auspices for medical gymnastic or massage treatment. Physicians often have patients of limited means for whom they would like to prescribe this treatment, were the expense not prohibitive. The proposed clinic will be a beginning in making a provision for the needs of this class. Suitable rooms have been secured on the first floor at 210 East Forty-first Street. Treatments will be given daily from 11 a. m. until 3 p. m., Saturdays and Sundays excepted, under the supervision of an official staff appointed by the society. In order to provide for the maintenance of the clinic, in its essential expenses, patients will be charged an amount ranging from 25 cents minimum to 75 cents maximum per treatment, according to their ability to pay. No free treatments will be given at the beginning unless by a vote of the official staff. The society and its members give their efforts and time without remuneration. All receipts, either in fees or contributions, which may at any time exceed the amount necessary for the running expenses, will be devoted to increasing the facilities for work. This branch of medical therapeutics has been commended as an agent in the treatment of many diseases, of which we desire to call attention to the following: Neuroses, chorea, locomotor ataxia, cerebral palsies, acute anterior poliomyelitis and other spinal palsies, neurasthenia, etc. Such patients as come within the scope of our clinical work will be gladly received. H. V. Barclay, M. D., G. H. Patchen, M. D., H. C. Thompson, M. D., Committee.

PHILADELPHIA AND PENNSYLVANIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

	Week end'g Nov. 14.		Week end'g Nov. 7.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	34	1	42	4
Diphtheria	106	30	83	12
Scarlet fever	103	2	108	0
Typhoid fever	133	7	76	12
Consumption		44	0	47
Cerebrospinal fever			0	0

The Cultivation of Medicinal Plants.—Dr. Rodney H. True, of the United States Department of Agriculture, gave an address recently at the College of Pharmacy on this subject, and illustrated it with more than a hundred specimens raised on the special farms of the Department in Washington, Texas, and Vermont.

Legal Relief Sought from Quarantine.—Application has been made in the Courts of Philadelphia for a writ of habeas corpus by an inmate of a house which has been quarantined for smallpox. He is said to have recovered recently from varioloid. Up to this time he has not been surrendered by the health authorities.

New Buildings for the Mount Sinai Hospital of Philadelphia.—A new site at a cost of \$35,000.00 has been purchased by the Mount Sinai Hospital Association. The dispensary which is situated on Pine Street between Second and Third Streets has been very active in its treatment of the poor, and has increased its facilities since the Mount Sinai Hospital Association was organized about three years ago.

Faith Curists Again.—As a result of three deaths of colored persons in Philadelphia from smallpox, without medical attendance, both the police and health authorities of Philadelphia are inaugurating a vigorous campaign against the responsible persons. It has been learned that several religious sects have been instrumental in withholding medical aid. One of their places of meeting has been closed by the board of health and the principals are being looked for by the police.

Pennsylvania Institution for the Deaf and Dumb.—The annual meeting for the election of directors of this institution was held October 28th. The report of the superintendent showed that during the past year sixty-four pupils were admitted and fifty-nine graduated. The present attendance is 507, said to be the largest number in any similar institution in the world. The erection of a new gymnasium is recommended.

The Philadelphia Neurological Society.—A stated meeting of the Philadelphia Neurological Society will be held in the hall of the College of Physicians of Philadelphia on Tuesday, November 24, 1903, at 8.15 p. m. Dr. M. Allen Starr, of New York, will, by invitation, read a paper entitled *Is Epilepsy a Functional Disease and Is It Ever Curable?* Dr. Martin W. Barr, of Elwyn, will be co-referee. Members of the profession are cordially invited to attend.

Infectious Diseases in Philadelphia.—For the week ending November 14th there have been only eight fewer new cases of smallpox than the preceding week, although the mortality has decreased to but one death. The mortality of diphtheria, however, has been almost twenty per cent.—there have been 106 fresh cases and twenty-two deaths; 133 new cases of typhoid fever show the extensive prevalence of this disease, although the mortality of seven cases for the week ending November 14th is somewhat more encouraging. Scarlet fever still holds the fort with 103 new cases, and only two deaths.

Many Philadelphia Schools Closed on Account of Smallpox.—Up to noon of Monday, November 16th, seven new cases of smallpox had been reported in the city of Philadelphia. On Tuesday it was reported that the following schools had been ordered closed by the Bureau of Health: Sartain School, Oxford Street and Glenwood Avenue; John H. Webster School, Frankford Avenue and Ontario Street; Asa Packer School, Broad Street and Germantown Avenue; Isaac A. Sheppard School, Howard and Cambria Streets; Kane School, Twenty-sixth and Jefferson Streets. Seven more school houses were closed on November 18th on account of smallpox.

Philadelphia County Medical Society.—At the stated meeting held on November 11th, the following papers were read: Dr. M. K. Kassabian, *The Technics of Röntgen Ray Treatment*; Dr. G. E. Pfahler, *The Röntgen Ray in the Treatment of Carcinoma and Tuberculosis*; Dr. Wm. M. Sweet, *Röntgen Ray Treatment of the Eye and its Appendages*; Dr. Henry K. Pancoast, *Röntgen Ray Treatment of Keloid*; Dr. J. T. Schamberg, *The Finsen Light and Röntgen Ray in the Treatment of Diseases of the Skin* (Lantern slide demonstration); discussion opened by Dr. Charles L. Leonard, followed by Dr. M. B. Hartzell, Dr. Henry W. Stelwagon, and Dr. W. S. Newcomet.

Resignations and Appointments.—Dr. Edmund W. Holmes has resigned his positions as surgeon to the Samaritan Hospital of Philadelphia and professor at Temple College of that city. Dr. Wilmer Krusen, instructor in Gynecology at the Jefferson Medical College of Philadelphia, and Dr. F. C. Hammond, who occupied a similar position in that institution, have both resigned. Dr. Krusen has accepted the professorship of Gynecology at the Temple Medical College of Philadelphia, and also the position of Gynecologist to the Samaritan Hospital of that city. Dr. Hammond will act as assistant to Dr. Krusen at the college and as chief of clinic at the hospital. Dr. James E. McCoy has been appointed physician to the medical dispensary of the Children's Hospital. Dr. B. Franklin Stahl has been appointed medical director of St. Agnes' Hospital, vice Dr. William H. Parish, deceased. Dr. Leo Loeb has been appointed assistant demonstrator in pathology at the University of Pennsylvania. Dr. Howard S. Anders has been made assistant professor of physical diagnosis in the Medico-Chirurgical College.

Dr. T. J. Buchanan, whose illness from typhoid fever had engendered much solicitude on the part of his fellow surgeons, is reported to be convalescing satisfactorily at the Jefferson Medical College Hospital, with which he is connected, and his early recovery is looked for.

Pennsylvania Medical Examining Board.—The next meeting of the medical examining board representing the Medical Society of the State of Pennsylvania will be held in Philadelphia, Industrial Hall, North Broad Street, on Tuesday, December 15, 1903, at 2 P. M., and will continue on the three succeeding days.

Inspection of Schools.—A public meeting in the interests of the medical inspection of schools is to be held on Thursday evening, December 3rd, in Philadelphia, probably at the De Lancey School, 1420 Pine Street. Dr. Ernst J. Lederle, of New York, will be the principal speaker, and will be followed by Miss Lina L. Rogers, supervising school nurse of New York City. Dr. Edward Martin and Dr. A. C. Abbott, of Philadelphia, will take part in the ensuing discussion. The inspection of schools has been carried on in an irregular and incomplete manner since 1898, but it is hoped to stir up public opinion in the matter that the number of inspectors may be increased and that twenty school nurses be appointed, so that daily inspection may be made of all public schools. It will be explained that the cost, though apparently great, will be less than that of conducting a crowded hospital for contagious diseases.

Negro Faith Curist Escapes the Philadelphia Authorities.—Further investigation into the three deaths from smallpox occurring within twenty-four hours, which were without medical attention, discloses the fact that they had been victims of an organization known as the "Church of God and Saints of Christ." This colony has grown in the city of Philadelphia by almost imperceptible stages, numbering now about 1,200 persons, principally women. The neighborhood in which this sect is situated is a thickly populated one, and it is here the board of health has discovered that smallpox and other contagious diseases have been treated with prayers and incantations. The members of the organization who visited the sick rooms where the contagious diseases existed, entered and left the rooms indiscriminately. The alleged founder and leader of this colony is a certain Bishop Crowdy. He has not yet been apprehended, and is reported to have left for Europe.

Typhoid Fever in Philadelphia from Infected Milk.—Dr. Alexander C. Abbott, chief of the Philadelphia health bureau, has issued the following report of the result of the investigation recently inaugurated for the purpose of tracing the source of the typhoid fever epidemic, focused in the southwestern part of the city. His report reads:

"From its beginning the bureau of health has regarded the sanitary supervision of the milk supply of the city as one of its most important functions and has lost no chance to emphasize its opinion on this subject. In consequence, the milk supply of

every case of contagious disease reported to the bureau is subjected to careful scrutiny. The value of this routine is already made manifest by the light thrown upon at least two localized outbreaks of typhoid fever of some magnitude, occurring in the city since the last week of August. Between October 19th and November 12th, inclusive, fifty-five cases of typhoid fever were reported from the twenty-sixth and thirty-sixth wards. Of this number thirty-five obtained their milk from a single dealer. On investigation it was learned that between September 24th and October 5th and between October 5th and October 29th there had been two cases of sickness in the house of the dealer. These cases are represented to the bureau as fevers—to be precise, as bilious remittent fevers, with some symptoms suggestive of typhoid fever but not enough to justify a positive diagnosis and not enough to warrant their being reported as cases of typhoid fever. However, the bureau decided to give the public the benefit of the doubt, and in consequence forbade the further sale of milk from the suspected premises. The house, the milk shop, and all utensils used in the business have been thoroughly disinfected. Had the bureau received full information as to the possible nature of these cases at the time of their occurrence, much suffering might have been prevented. While it is dangerous to predict results, it is, nevertheless, the belief of the bureau that an important factor concerned in the causation of a large number of the cases in the twenty-sixth and thirty-sixth wards has been discovered and eliminated. We regard the foregoing experiences as important arguments in favor of the position taken by the bureau, namely, that too much attention cannot be paid to the sanitary conditions under which milk is supplied to the citizens. The other outbreak occurred in the twenty-first ward, and involved a total of 86 cases between August 29th and October 9th. In collecting the data referring to those cases it was found that over fifty-three per cent. of them received their milk from a single dealer. In the house of this dealer there were discovered two cases of typhoid fever. These were removed to the hospital at once, the sale of milk discontinued, the premises, its surroundings, and all utensils used in the business, were disinfected. In the meantime three cases of typhoid fever were found to have run their course in the house of another dairyman whose supply was disposed of also in the twenty-first ward. This individual was likewise prohibited from selling milk until his premises were cleaned and disinfected and until the cases in his house had recovered. As a result of these precautions (and allowing for the development of cases that were infected up to the time the cause of infection was eliminated) there was a steady decline in the occurrence of typhoid fever in the neighborhood. Since October 4th the largest number of cases occurring in any one week is five; these occurred in the week ending October 17th. For the past four weeks the largest number of cases for a single week has been three, while for three of those four weeks only two cases were reported weekly. Throughout all of this period, even when the outbreak was at its height, the filtered water supplied to the ward was entirely beyond suspicion."

CHICAGO AND ILLINOIS.

Statement of Mortality for the Week Ending November 14th, compared with the preceding week, and with the corresponding week of 1902. Death rates computed on estimated mid-year populations of 1,885,000 for 1903, and of 1,820,000 for 1902:

	Nov. 14, 1903.	Nov. 7, 1903.	Nov. 15, 1902.
Total deaths, all causes	484	476	486
Principal causes of death—			
Acute intestinal diseases	24	31	28
Apoplexy	16	7	15
Bright's disease	31	41	29
Bronchitis	18	18	19
Consumption	45	37	45
Cancer	26	14	17
Convulsions	9	9	16
Diphtheria	26	17	19
Heart diseases	36	40	37
Measles	1	0	2
Nervous diseases	31	29	28
Pneumonia	68	67	53
Scarlet fever	2	3	7
Suicide	5	14	8
Typhoid fever	14	10	21
Violence (other than suicide)	30	23	26
Whooping cough	4	2	5

The Oak Leigh Educational Sanitarium is a new institution opened at Lake Geneva, Ill., under the private supervision of Dr. Mary E. Pogue, formerly physician to the Illinois Hospital for Feeble Minded Children. The aim of the sanitarium is to surround children mentally deficient with attractive hygienic influences and to make a special study of each individual case that manual or mental work or both may be properly apportioned.

Pneumonia Still Raging.—Belated returns from the County Medical Institutions increased the consumption deaths reported during the week to a total of forty-five as against thirty-seven during the week previous; but even so, the excess of deaths from pneumonia continues. For the first fortnight of the month eighty-two deaths from consumption have been reported and 135 from pneumonia—an excess of nearly two thirds (64.6 per cent.) of the latter. There are gratifying indications, however, of increasing interest in the pneumonia problem. Eastern medical periodicals have very generally reprinted the statistics of the growth of the disease furnished in recent issues of the *Bulletin*, and one, the *New York Medical Journal*, editorially asks, "Why not a crusade against pneumonia as well as against consumption?" Another, *American Medicine*, says "it is evident that the gain from the crusade against tuberculosis has been largely offset by the increased malignancy of pneumonia. The fact is suggestive and even alarming. Has the search for its cause been made with the vigor demanded? The phenomenon is not without parallel in other diseases. Are we reaching a condition in the struggle to lessen the general death rate when the reduction of the mortality from one disease will result in a corresponding increase in that from another? If so, the conclusion can only be that there is one cause common to both diseases. Are the ravages of the bacillus of tuberculosis and the diplococcus of pneumonia dependent upon this deeper causal factor? The old question of soil and seed again arises. Has that of the soil been too much neglected?"

The Chicago Lying-in Hospital and Dispensary is building a new dispensary at Maxwell and Newberry Streets, three stories in height, and twenty-five by sixty feet in ground area. It will be ready for occupancy by January 1st.

GENERAL

The Hebrew Orphan Asylum and Hospital, of Baltimore, Md., has elected Dr. A. I. Frank president of the institution.

Asylum for Chronic Insane at Wauwatosa, Wis.—Mr. Jacob Truss has been elected president of this institution and Dr. F. W. Beuttler re-elected superintendent.

That Particular Error of Mortal Mind, known to the non-illuminati as diphtheria, has made its way into the house on Broad Street, Lynn, Mass., formerly occupied by Mrs. Eddy, chief of the Christian Science cult.

Right of Way for Physicians.—The city council of Kansas City, Mo., has passed an ordinance giving the right of way through funeral and other processions of ambulances, hospital corps, and physicians' private carriages.

A Physicians' Protective Association has been formed by a number of practitioners of Pittsburgh, Pa. A black list of nonpaying patients has been made out, and a schedule of fees established on a somewhat higher scale than formerly.

The Woman's Board of Missions, of Boston, Mass., according to a report issued by Dr. Louise C. Purrington, of Dorchester, has forty medical missionaries in the field, twelve of them women, and is receiving recruits from the native populations, particularly in Japan.

The Monthly Health Report from Connecticut shows that there were 1,123 deaths from all causes in that State during the month of October. There were eight new cases of smallpox; 255 of measles; 103 of scarlet fever; 141 of diphtheria; 94 of whooping cough; 165 of typhoid fever; and 25 of consumption.

The New England Deaconess Association is building a hospital at the corner of Bellevue and Park Streets, Longwood, Boston. The cornerstone was laid on November 5th by Governor John L. Bates, while the Reverend Willard T. Perrin, President of the association, presided and made the opening address.

Smallpox in Hackensack.—Four cases of smallpox have been accidentally discovered among the colored population of Hackensack, N. J., by the visit of one of them to a drug store to purchase an ointment for the eruption on his face. He was referred to a physician who immediately diagnosed the disease. A strong guard now surrounds the infected quarter of the town.

Dr. J. A. Riviére, the distinguished authority on Physiotherapy, was the guest of honor at a banquet tendered by an Anglo-French gathering at the Hotel Palais d'Orsay, Paris, on October 29th. The event signalized the election of Dr. Riviére to the Legion of Honor. About 150 guests were present, among them Professor Lancereaux, president of the Académie de Médecine, and the Honorable Dr. Allan Herbert.

The City Hospital, of Cincinnati, O., has secured a new building for a nurses' home, and is thus able to throw open three new wards for patients.

The Hebrew Hospital and Asylum Association, of Baltimore, Md., has received a bequest, from the late Samuel E. Fleischer, of fifty dollars, with the proviso that the Kadish prayer shall be said regularly for the testator on the anniversary of his death.

The Western Hospital, of Montreal, Can., has secured promises of subscriptions to the amount of \$50,000 for its proposed new building, rendered necessary by the rapidly increasing population of the western part of the city. One hundred thousand dollars will probably be needed to equip the institution properly.

Johns Hopkins Staff Changes.—At a meeting of the board of trustees of the Johns Hopkins Hospital on November 10th, the following appointments and changes in the hospital staff were made: Dr. J. M. Siemons to be resident obstetrician, in place of Dr. F. W. Lynch, resigned; Dr. F. C. Goldsborough to be interne in obstetrics; Dr. Camillus Bush to be assistant resident surgeon; Dr. Stephen Rushmore to be assistant resident gynecologist; Dr. C. H. Bunting to be assistant resident pathologist. Besides these, the following appointments were made on the dispensary staff: Dr. Lewis Hamman and Dr. Ernest K. Cullen to be assistants in general medicine; Dr. J. Stage Davis and Dr. W. A. Fisher, Jr., to be assistants in surgery; Dr. J. I. Butler and Dr. Louis Lehr to be assistants in special surgery; Dr. C. K. Russell to be assistant in neurology; Dr. B. B. Browne, Jr., and Dr. E. H. Schild to be assistants in ophthalmology; Dr. B. F. Riley to be externe in medicine; Dr. W. B. Cornell to be externe in neurology.

Mortality of Michigan During October, 1903.—There were 2,624 deaths reported to the Department of State for the month of October, or ninety-eight less than the number returned for the preceding month. The death rate was 12.5 per 1,000 population. Deaths by ages were as follows: under one year, 489; one to four years, inclusive, 185; sixty-five years and over, 766. There was a considerable decrease in deaths of infants and children, and a slight increase in deaths of elderly persons, as compared with September. Important causes of death were as follows: tuberculosis of the lungs, 190; other forms of tuberculosis, 35; typhoid fever, 90; diphtheria and croup, 78; scarlet fever, 7; measles, 3; whooping cough, 16; pneumonia, 143; diarrhoea and enteritis, under 2 years, 173; cancer, 129; accidents and violence, 202. There was one death from smallpox which occurred in the city of Hillsdale. Somewhat increased mortality was shown from tuberculosis, diphtheria and croup, and pneumonia. Typhoid fever caused ninety deaths, as compared with seventy-four for the preceding month. There was a very large decrease in deaths reported from diarrhoeal diseases of children, and also a considerable diminution in the number of deaths from cancer.

Warren Triennial Prize, Massachusetts General Hospital.—The Warren Triennial Prize was founded by the late Dr. J. Mason Warren in memory of his father, and his will provides that the accumulated interest of the fund shall be awarded every three years to the best dissertation, considered worthy of a premium, on some subject in physiology, surgery, or pathological anatomy; the arbitrators being the physicians and surgeons of the Massachusetts General Hospital. The subject for competition for the year 1904 is on some special subject in physiology, surgery, or pathology. Dissertations must be legibly written, and must be suitably bound, so as to be easily handled. The name of the writer must be enclosed in a sealed envelope, on which must be written a motto corresponding with one on the accompanying dissertation. Any clew given by the dissertation, or any action on the part of the writer which reveals his name before the award of the prize, will disqualify him from receiving the same. The amount of the prize will be \$500. In case no dissertation is considered sufficiently meritorious, no award will be made. Dissertations will be received until April 14, 1904. A high value will be placed on original work. Herbert B. Howard, Resident Physician.

The Oklahoma Medical Society held its twenty-second semiannual meeting in Oklahoma City on November 11th. The following papers were to be read: Expert Testimony, by D. H. Fernandes, editor *Oklahoma Law Journal*, of Stillwater; Discussion opened by Dr. John W. Duke, of Guthrie; Postpartum Hæmorrhage, by Dr. G. A. Wall, of Oklahoma City; Discussion opened by Dr. R. H. Tullis, of Lawton; Complete Inversion of the Uterus, with Subsequent Reduction and Recovery, by Dr. J. M. McComas, of Elk City; Discussion opened by Dr. S. E. Knight, of Enid; Vomiting in Pregnancy, by Dr. J. A. Hatchett, of El Reno; Discussion opened by Dr. W. M. Hatfield, of Mulhall; Compound Fracture of the Skull, with Hernia Cerebri; Its Radical Treatment, by Dr. F. P. Hullen, of Pond Creek; Discussion opened by Dr. U. L. Russell, of Oklahoma City; The Microscope in the Practice of Medicine, by Dr. A. B. Leeds, of Chickasha; Discussion opened by Dr. Horace Reed, of Guthrie; Typhoid Fever, by Dr. J. E. Jordan, of Stella; Discussion opened by Dr. W. J. Muzzy, of El Reno; Ætiology of Puerperal Fever, by Dr. Roland A. Felt, of Perry; Discussion opened by Dr. N. W. Mayginnis, of Tulsa, I. T.; Stones in the Common Bile Duct, by Dr. A. H. Cordier, of Kansas City, Mo.; Discussion opened by Dr. A. L. Blesh, of Guthrie; Report of a Case of Alcoholic Neuritis, by Dr. W. E. Dicken, of Okhaloma City; Discussion opened by Dr. W. W. Rucks, of Guthrie; Gastroenteritis in Children, by Dr. J. H. Barnes, of Jett; Discussion opened by Dr. Harry A. Reese, of Stillwater; Anæmias, by Dr. Ira B. Bartle, of Augusta; Discussion opened by Dr. Delos Walker, of Oklahoma City; Cryptorchidism, by Dr. R. D. Long, of Okhaloma City; Discussion opened by Dr. Ed E. Rice, of Shawnee; Tonsillitis, by Dr. Ambrose T. Grayson, of Shawnee; Discussion opened by Dr. C. S. Bobo, of Norman.

Pith of Current Literature.

PRESSE MEDICALE.

October 17, 1903.

1. Work of the Leucocytes in the Assimilation and Re-division of Medicines in the Organism,
By MARCEL LABBÉ.
2. Part Played by the Omentum in General Infections,
By L. G. SIMON.

1. Leucocytes and Medicines.—Labbé points out that since Metchnikoff proved that the principal function of the leucocytes was the absorption and digestion of foreign bodies, study has shown the capital importance of these bodies in the organism. They not only destroy what is harmful, but help to assimilate food and medicine. Centrifugation of the blood after hypodermic injection of poisons shows that the leucocytes contain most of the poison. They take up iron, but little of which is excreted by the kidneys and liver. Insoluble medicines are absorbed and rendered soluble by the leucocytes. Iodine, arsenic, iodoform, mercury, sodium salicylate, are all taken up by these cells and may or may not enter into a true chemical combination with them; possibly the medicines are carried to a pathological lesion by a process of election in this manner, e. g., mercury to syphilitic eruptions.

2. Protective Action of Omentum.—Simon says it has long been known how the omentum helps cicatrization in operations on the vagina, ureters, Falloppian tubes, and in laparotomies generally. It also encysts purulent foci by adherence to adjoining tissues, thus preventing general peritonitis. If a virulent culture is introduced into the peritonæum of a guinea pig, the omentum shows that it takes up most of the microbes, and if it is removed before the injection, death ensues much more quickly. What we have now discovered is that the omentum protects the system when the source of infection is far from the peritonæum, which could not have been guessed *a priori*. Simon details demonstrative experiments.

October 21, 1903.

1. Preprostatic Exposure of the Posterior End of the Urethra in External Urethrotomy Without a Guide,
By EMILE FORGUE.
2. Sixteenth Congress of the *Association Française de Chirurgie* (Paris, October 19 to 24, 1903).

1. Exposing the Posterior Urethra.—Forgue states that in Sédillot's operation, that is, in external urethrotomy for impermeable stricture without a guide, he attacks at once the vesical end of the urethra where it emerges from the prostate, an exact and invariable anatomical landmark, no matter what perineal suppuration or sclerosis there may be; and employs in this anteprostatic exposure of the urethra the prerectal separation method, as done in perineal prostatectomy. As frequently it is impossible to find the posterior urethra with a sound in the usual way, it is best, in such cases, to open the bladder suprapubically and pass the sound from within outwards.

2. Report of the Congress also fills the following issue.

LYON MEDICAL.

October 18, 1903.

1. Oil of Cade in the Treatment of the Simple, Chronic Lichens,
By CARLE.
2. Abscess of Liver Opening Into the Bronchi; Persistent Bronchial Fistula; Transpleural Opening; Cure,
By KAEPPÉLIN, and MOREL.

1. Oil of Cade.—Carle recalls that there are primitive lichens and eruptions which lichenify, to use Brocq's expression. Infection may take place from dirt, scratching, etc. Oil of cade is efficacious only in the simple, chronic form. It is an old remedy, mentioned by Pliny Junior and much used in the sixteenth century. Both the true oil, prepared by distillation of wood, and the false, made from tar, are equally good. It may be combined with emplastrum simplex and wax, or with starch glycerite and tincture of quillaja, or with lanolin, cacao butter, lard, or vaseline. One of these combinations is forcibly rubbed into the lichen in the evening and kept in place all night by a bandage; it is washed off next morning with soap. Carle's results have been excellent; the itching disappears at once. No internal treatment was used, and other remedies were tried without avail.

2. Abscess of Liver.—Kaeppelin and Morel's case was in a man 25 years of age, without family history of importance, save that his father was "ethylic." Pain in the right hypochondrium radiating into the shoulder, and fever, cough, and the voiding of a fetid, reddish pus, brought him to the hospital. He could hardly speak; the liver extended beyond the floating ribs, two fingers' breadth; urine normal. Operation disclosed the origin of the trouble, an abscess of the liver, swarming with every variety of microbe; a week of profuse drainage brought about complete restoration to health. The ætiology is obscure unless it was of malarial origin in a debilitated subject.

SEMAINE MEDICALE.

October 14, 1903.

Hæmorrhagic Coloration of the Cerebrospinal Fluid,

By L. BARD.

Coloration of Cerebrospinal Fluid.—Bard states that when the cerebrospinal fluid presents the characteristic sanguinolent appearance, no doubt is possible that the hæmorrhage is of intrarachnoid origin; the normal fluid is quite colorless; when the coloration is due to hæmoglobin, intrarachnoid hæmorrhage is probable, but in certain meningitides, the hæmolytic power of the liquid may be sufficiently raised to tinge the blood without the addition of distilled water; in such a case, an accidental hæmorrhage would give the centrifugated liquid a hæmoglobin coloration which might induce error; coagulated blood in the instrument might also lead to a false conclusion. When the centrifugated liquid has a yellowish tinge, it is due to a pigment derived from hæmoglobin by some action of the cerebrospinal fluid. Some investigators have denied this. The yellowish coloration observable in cases of jaundice may be differentiated by spectrum analysis, which is also valuable to determine the presence of hæmoglobin.

REVISTA DE MEDICINA Y CIRUGIA PRACTICAS.

October 14, 1903.

1. The Respiratory Rhythm, By D. A. ESPINA Y. CAPO
2. Serumtherapy in Pellagra, By D. JERÓNIMO SAL LENCE.

1. **Respiratory Rhythm.**—Espino Y. Capo makes an interesting contribution to the study of sources of disturbance to the respiratory rhythm, taking up the various phases of the subject under the following heads: (1) Emotion dyspnœa; (2) defensive rhythm—as illustrated by the deep inspiration and violent expiration taking place when a foreign substance is to be expelled by sneezing and coughing; (3) chemicomechanic, in which mechanical causes of any nature lessen the ingress of oxygen and induce an accumulation of carbonic acid; and (4) chemical rhythms, having their origin in autoinfection, as illustrated by the reflex dyspnœa due to diseases of the digestive tract. The author believes that the emotion rhythms afford practical proof of the existence, not only of bulbar and spinal respiratory centres, but also of cerebral respiratory centres. He holds that the involuntary respiration occurring under normal conditions and presided over by the bulbar respiratory centre becomes modified under the influence of psychic emotion; and that such modifications have their origin within the motor area of the cerebral cortex.

2. **Serumtherapy.**—Lence holds out the hope that the discovery by D. Prieto of certain spores upon damaged maize, to which he attributes pellagra, and the production, in rabbits, of immunity to the serum of pellagrous patients, by inoculation with these spores, may lead to the production of a serum which will render man immune and be curative to the disease.

RIFORMA MEDICA.

August 12, 1903.

1. On Primary Tuberculosis of the Mammary Gland (*To be continued*), By R. CAMINITI.
2. Contribution to the Study of the Physiology of the Kidneys. Microscopical Studies, By A. FERRATA.
3. Contribution to the Surgery of the Biliary Passages (*To be continued*), By G. MARIOTTI.
4. Hydrochloric Acid, Pepsine, and Rennet in Diseases of the Stomach After the Administration of Various Drugs (*Concluded*), By D. PIRRONE.

2. **Physiology of the Kidney.**—Ferrata finds that the kidney at rest differs from the kidney in activity, not so much by the greater or smaller aperture of the tubules, as by certain peculiarities of the protoplasm of the cellular elements, which can be easily demonstrated. In repose the cells contain many granules, which, at the beginning of activity, gradually disappear, and almost entirely vanish when the normal height of activity has been reached. The author excludes artefacts and possible errors of technics, and affirms that these granules are indications of activity in the renal cells. It is not possible to say at present what the chemical nature of these granules is, but they are undoubtedly the products of external secretion of the cells of the postglomerular tract.

4. **Chemistry of the Stomach After the Use of Certain Drugs.**—Pirrone concludes as follows

from an extensive study of the effects of various drugs on the chemical composition of the gastric juice in diseases of the stomach: In diseases of the stomach the free hydrochloric acid and the ferments do not behave alike, and the behavior of pepsine and of rennet only is identical. In Reichmann's disease, while the increase of acid will also increase all the ferments, the decrease of acid on injecting atropine will not increase the ferments. In both chronic gastritis and in hypochlorhydria of nervous origin, the ferments may be present in normal amounts. In carcinoma of the stomach the ferments may persist for a long time in normal amounts, while the acid secretion is diminished at a much earlier stage. The use of strychnine is beneficial in chronic gastritis and in hypochlorhydria of nervous origin, in order to stimulate the secretion of acid, but it has no effect on the ferments. The hypodermic use of atropine and of strychnine in diseases of the stomach is of no avail practically, while pilocarpine may be given either by mouth or hypodermically with equally good result. Pilocarpine increases the amount of acid secreted but has no effect on the ferments. The author does not think that bitter tinctures, alkalies, alcohol, etc., in small amounts can have any influence on the chemical composition of the gastric juice. The effect of daily washing of the stomach is to diminish the total acidity of the contents, but it has no effect on the proportions of hydrochloric acid and of ferments.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE

July 10, 1903.

1. A Case of Akinesia Algera, By PIETRO FIORENTINI.
2. Clinical Observations on a Case of Mixed Symmetrical Polyneuritis, By G. MORELLI.
3. A Case of Fracture of the Orbit, By FRANCESCO RE.
4. Clinical Contribution to the Surgery of the Larynx and Trachea, By TITO SCARRONE.
5. A Method of Treating Angeiomata Without Operation, By ANGELO FRATTINI.
6. Essential Diabetes Insipidus in Children, By DOMENICO GENTILE.

5. **Treatment of Angeiomata.**—Frattini describes the method of treating angeiomata bloodlessly, as devised by Monteggia in 1857 and employed later (1887) by Fiorani. This method consists of the application of a paint containing four grammes of corrosive sublimate to thirty grammes of collodion. In practice the surgeon meets with cases in which the parents of a child with angeioma strenuously object to a bloody operation, and he must think of some means of curing this tumor without recourse to an operation. Frattini tried this method on his own daughter, and found that three parts in fifty of collodion were easily applied with a brush, several layers of the collodion being painted one over the other and the whole being covered with an aseptic dressing. The child did not complain of any pain and after three days an eschar was found instead of the tumor. After three applications the collodion mass fell off and left a scar, which is now almost imperceptible. Since then the author has employed this method in thirty cases of angeioma and in all he has obtained the most sat-

isfactory results. The method is not applicable to the angiomas of mucous membranes, as the caustic may produce an ulcer. In using the solution on hairy parts they must be shaved previously. The painting is repeated every three days. On removing the eschar, there is sometimes a slight erosion, which is to be powdered with some antiseptic powder. The lesion heals perfectly as a rule, giving the best possible result.

6. Essential Diabetes Insipidus in a Child.—Gentile reports the case of a child in which he found the essential type of diabetes insipidus. He distinguishes two types of this affection in children—the secondary, and the primary, or essential. The disordered urinary secretion is to be explained in the latter as a result of a disturbance of the sympathetic system. The best treatment consists of sedatives, tonics, and general means of increasing the nutrition. The prognosis is good.

August 2, 1903.

1. Chylous and Chyliform Exudates,
By ANGELO CIPOLLINA.
2. Intestinal Anastomosis, By ALEARDO SANTUCCI.
3. The Surgical Treatment of Trigeminal Neuralgia,
By GIULIO BARONI.
4. The Use of Antitoxin in the Stomach,
By F. FIGARI.

3. Surgical Treatment of Trigeminal Neuralgia.—Baroni says that surgical treatment of trigeminal neuralgia must be regarded as a last resort after analgetics, antipyrine, quinine valerianate, bromides, opium (in the form of pills), the continuous electrical current, injections of osmic acid or strychnine, etc., have failed. He reports two cases of trigeminal neuralgia in which he employed resection of a portion of the nerve, instead of the removal of the Gasserian ganglion, and recommends that, in view of the brilliant results possible with the less dangerous operation, it be first employed in all cases requiring surgical treatment. The technics is briefly as follows: Under morphine and cocaine anæsthesia, a vertical incision is made through the masseteric region, avoiding the facial nerve fibres, reaching the ramus of the jaw, and trephining through it until the dental branch is reached. The latter is then extracted in the usual way. If the pain is distributed along other branches, they are extracted in the same way, after being reached through appropriate incisions. Thus, in the second case the auriculotemporal branch was extracted, after making an incision in front of the ear, exposing the temporal artery, and following it until the nerve was isolated.

4. Tuberculosis Antitoxine by Mouth.—Figari, of Maragliano's clinic communicates the results of further researches made by him in the administration of the antituberculous serum of Maragliano by the mouth in animals. He found that, not only was he able by this means to produce immunity and to manufacture in these animals certain antitoxic and agglutinating substances, but also to produce specific antibacillary bodies. By this method it was possible to endow the serum of animals of different species with

antitoxic virtues. The manufacture of specific antitoxic substances is not the property of any special species, but is probably the result of a reaction common to all animal organisms. In man, the capacity of obtaining serums rich in antitoxic, agglutinating, and antibacillary substances by feeding with antituberculous serum has been frequently demonstrated. Such persons should not be considered entirely immune, however, but should be regarded as carrying an unusually great amount of natural protective substances in their system.

August 9, 1903.

1. Leucocytosis Following the Intravenous Injection of Bichloride of Mercury, By GUGLIELMO MEMMI.
2. The Problems of Tissue-Grafting, My MARIO SEGALÉ.
3. Accidents of Occupation and Hip Disease,
By EGISTO CURTI.
4. A New Double-Current Syringe (Catheter),
By GIULIO BARONI.

1. Leucocytosis Following Injections of Sublimate.—Memmi found in a series of clinical experiments with injections of sublimate into the veins, that this procedure was almost constantly followed by leucocytosis. Daily subcutaneous injections of sublimate given with therapeutic intent, almost always gave leucocytosis, of a moderate degree, the increase occurring usually after a few days, and persisting almost constantly in the latter part of the treatment. A single injection of sublimate hypodermically, however, produced no leucocytosis or a very moderate degree. On the other hand, if the sublimate is introduced into the veins a single dose produces leucocytosis, usually of a polymorphous variety. Thus, therapeutic doses of sublimate injected intravenously may be a very good aid to the natural defenses of the body. The injections were not followed by any unpleasant effect nor by any local indurations. The time of the reaction, i. e., of the increase in leucocytes, was usually one hour or one hour and a half after the injection of a dose of sublimate into the veins. The maximum of the reaction was reached in from four to six hours, and after that there was a gradual diminution in the number of white cells, and in the majority of the cases the number of leucocytes returned to the original status after from eighteen to twenty-four hours.

PRAKTITCHESKI VRATCH.

July 12, 1903.

1. On Malarial Spots as a Symptom of Malarial Affection of the Bloodvessels, By I. ANDRZHEŃSKI.
2. A Report on 292 Lithotomies (Concluded),
By I. KH. DZIRNÉ.
3. A Case of Idiopathic Contractions of the Right Hand (Concluded),
By A. M. VIRSHUBSKI.

1. Malarial Spots.—Andrzhéevski believes that malarial spots are evidences of an affection of the bloodvessel, due to the chronic malarial state. These spots are very frequently, though not constantly seen in malarial infection. They are of some practical importance inasmuch as they assist in discovering the true cause of some severe malarial affections, the origin of which is not quite clear. Theoretically, they are also of interest, as they show

that malaria has a special influence upon the blood-vessels, quite independent of the fever-producing action of this disease.

2. Reports of 292 Lithotomies.—Dzirne reports a summary of the history of 292 lithotomies, 287 of which were in men, and five in women. In 13 cases the stone was impacted in the urethra, the patients being exclusively boys. Of the total number of cases 71 were suprabic, and of the latter 24 were of the "ideal type" i. e., the bladder was immediately sutured after the operation, without draining through the suprapubic incision. Of the median lithotomies there were 186 cases with a mortality of 5.36 per cent. Of the high lithotomies, the 24 with drainage gave no mortality, while the remainder gave 1.47 per cent. mortality, i. e., one death out of 71. In 34 cases with the open treatment of the wound there was 2.94 per cent. mortality. The author emphasizes the value of cystoscopy and of the microscopical study of the urine in the diagnosis of stones in the bladder.

3. A Case of Idiopathic Contractions of the Right Hand.—Virshubski reports a case of a man, aged fifty-two years, with a family history of insanity and hysteria, who had noticed a convulsive motion in his right hand during the preceding eleven weeks. This movement was the only disturbance which could be found in the patient as there were no changes in sensation, no atrophy, etc. The contractions were clonic, lightning-like, occurring twenty-five to fifty times a minute, and were continuous, only ceasing when the patient was asleep. The tremor began in the region of the shoulder and of the chest adjoining the arm, but consisted mainly in the pronation of the elbow and forearm to the maximum limit, and in the close adduction of the arm to the trunk. In this condition of pronation the hand was lowered in the direction of the genital organs, or it continued its motion to the opposite axilla, whence it was voluntarily thrown backwards and downwards by the patient himself. Each wave of contractions was immediately succeeded by another wave, and the patient was like an automaton performing the same motion constantly. The author thinks that these contractions are idiopathic. A variety of remedies was used to relieve the patient's discomfort, but without much avail. Hypnotism was not successful, nor were injections of duboisine, curare, etc. Finally, surgical treatment was attempted in the form of an operation suggested originally by Ebers, in 1902, consisting of the severing of the tendons or muscles subject to contraction. In this case the tendon of the pectoralis major was carefully divided at its insertion and the end sewn to the muscle itself. The stump of this tendon was lying free in the wound and kept on contracting. In the same way the pronators of the elbow were severed, but the result of the operation was not very favorable, for the contractions kept up, although slightly modified in direction.

ROUSSKY VRATCH.

September 6, 1903.

- I. The Bacteriological Diagnosis of Plague in Cadavers
(*To be concluded*), By S. I. GOLDBERG-ZLATOGOROFF.

2. Atypical Pseudotuberculous Antinomycosis. The Streptotrichinosis of the Authors (*To be continued*),
By I. A. SCHWABAD.
3. On Gummatous Swellings of the Sclera,
By A. V. LOTINE.
4. New Streams in the Progress of Artificial Feeding of Infants (*To be concluded*),
By S. A. BARSKY.

3. Gummatous Swellings of the Sclera.—Lotine calls attention to this rare condition. It is noted in but few of the textbooks on diseases of the eye. There are only 16 cases recorded in literature, but this number is raised to 21, if we include certain other cases not completely described, but mentioned. Cohn did not see a single case among 20,000 persons observed. Lotine describes the case of a man, aged forty-three years, in whom he found gummata of the sclerotic. The disease showed itself, first, by pains in the eye and in the adjacent portions of the head, and in a short time the eyesight was lost entirely on that side. The illness had lasted four years, but the pains had become especially intense during the last six months. The eye, on examination, presented the appearances of the glaucomatous period of intraocular swellings. Nothing was obtained on ophthalmoscopic examination, except a greyish reflex. The eye was removed, and on section the sclerotic was found to be the seat of a whitish swelling, which was especially marked at the upper aspect of the eyeball, and extended across it in the equatorial direction, about 7 mm. away from the edge of the cornea. The removal of the eye was justified, the author thinks, on account of the severe pain and of the probable uselessness of antisyphilitic treatment at this advanced stage of the lesion.

AMERICAN MEDICINE

November 7, 1903.

1. The Treatment of Puerperal Sepsis,
By E. E. MONTGOMERY.
2. Hyaline Bodies in Tumors and Kindred Other Conditions (*Illustrated*),
By RANDLE C. ROSENBERGER.
3. Empyema,
By I. R. TRIMBLE.
4. Obstipation: Its Causes, Effects, and Treatment,
By JOHN L. JELKS.
5. Nostalgia and Melancholia in the Tropics,
By E. S. CORSON.
6. Case of Posttyphoid Infection of a Rib (*Illustrated*),
By ALFRED IRVING LUDLOW.
7. A Study of School Hygiene, Development of Children, and Preventive Medicine,
By ALICE M. SMITH.

1. The Treatment of Puerperal Sepsis.—Montgomery considers the treatment adapted only to well established attacks. The subject divides itself into two main divisions: (1) The treatment of sapræmia. (2) The treatment of bacterial septic infection. (1) The first indication in sapræmia is to empty the uterus and vagina of all decomposing material and to disinfect all the genital tract as well as possible. This having been properly done the balance of the treatment is purely symptomatic. (2) Septic bacterial infection is a much more serious matter and an earnest endeavor should be made to locate if possible the seat of infection. The following general measures have been recommended: (1)

The serum treatment. The author has lost all faith in the efficacy of such treatment. (2) Hysterectomy. To be of any efficacy, in the author's opinion, hysterectomy must be done at once. There are few men, however, who would have the temerity to assert that hysterectomy should be done in every case of suspected sepsis. The procedure is, therefore, only theoretically of any service. (3) Intravenous injections of germicidal agents. The author has used both sublimate and formalin by intravenous injection. In his judgment neither of these agents is probably of more efficacy than a one per cent. saline solution. The treatment of such cases of sepsis resolves itself, therefore, practically into a treatment of the symptoms. The patient must be supported. The genital tract maintained as sterile as possible without too much meddlesomeness. Saline solutions, either by the rectum or intravenously, are often of undoubted value in reducing the toxic symptoms. Vaginal section and drainage is often useful and is at times to be justified on purely diagnostic grounds. All collections of pus should be evacuated as soon as recognized.

4. **Obstipation.**—Jelks enumerates thirteen causes of obstipation. He classifies these causes under four general heads: (1) Extravisceral. (2) Perivisceral. (3) Visceral. (4) Intravisceral. The author, however, believes that valvular obstructions cause more cases of obstipation than all the other causative factors. It must, however, be borne in mind that before an operation is performed on the rectal valves all the other possible causes of obstipation must be excluded.

November 14, 1903.

1. Chronic Malaria: Complications and Sequelæ with Special Reference to Digestive Complications,
By JOHN C. HEMMETER.
2. Contribution to the Clinical Study of Cerebrospinal Meningitis (*Illustrated*),
By THOMAS C. ELY.
3. The Gastrointestinal Disturbances Associated with Migraine,
By JOHN A. LIGHTY.
4. The Association of Valvular Heart Disease with Tabes,
By B. FRANKLIN STAHL.
5. Operation in Hip-joint Disease Without Shortening (*Illustrated*),
By R. PRESTON ROBINSON.
6. Gallstones and Gastric Hyperacidity,
By J. KAUFMANN.
7. Human Terata,
By AUSTIN O'MALLEY.

1. **Chronic Malaria.**—Hemmeter reviews the history of malaria and discusses the chief characteristics of the disease. The following definitions are then given: (a) A complication is a diseased condition coexistent with and modifying another, with which it may or may not be ætiologically connected. (b) A sequela is a consequence of an abnormal condition—any abnormal state following an attack of disease or injury. The complications of malaria involve, with the greatest frequency, the following organs in the order given: 1. (a) The digestive tract; (b) the genitourinary system: these two systems are involved with equal frequency. 2. The heart and blood vascular system. 3. The respiratory system. 4. Nervous system. 5. Diseases of the bones, muscles, and joints. 6. Diseases of the skin. 7. Diseases of the lymphatic system. 8. Diseases of the organs of special sense. 9. Diseases

of metabolism—notable among these are diabetes and amyloid degeneration. The author discusses each one of these complications in succession devoting the most space to the complications of the digestive tract. The sequelæ are scarcely mentioned.

2. **Meningitis.**—Ely and Snyder report the clinical symptoms only of the 23 cases of cerebrospinal meningitis which occurred in an epidemic on the U. S. S. *Minneapolis*. All the cases are reported in some detail and then the symptoms are discussed in groups.

4. **Valvular Heart Disease and Tabes.**—Stahl concludes: (1) Disease of some part of the circulatory system is present in nearly all cases of advanced tabes. (2) Valvular heart disease occurs in a large percentage of the cases. (3) The intimate relationship existing between syphilis and tabes and the pronounced circulatory changes induced by the former make it reasonable to regard syphilis as the cause of the large percentage of cases of valvular heart disease which we find associated with tabes.

5. **Operations in Hip-joint Disease.**—Robinson gives the following as the chief points to be attended to in operations for tuberculosis of the hip-joint: (1) Thoroughly clear away all diseased bone and debris. (2) Carefully preserve all existing portions of periosteum. (3) Stretch the periosteum along the track of the old bone and attach to the periosteum of the lower margin of the acetabulum. (4) Stitch the muscles and fibrous tissue over the periosteum. (5) Stretch the leg full length and apply fifteen to twenty pounds weight for extension. (6) Allow the wound to heal by granulation. (7) Let the patient sit up in bed two weeks after operation. (8) Keep the weight on for four months, or use a Thomas splint and allow the patient up after six weeks. (9) Do not allow the patient to walk for six months.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

November 7, 1903.

1. Leprosy in the Hawaiian Islands, By JUDSON DALAND.
2. Leprosy from a Sanitary Standpoint,
By ISADORE DYER.
3. Fixation of the Prolapsed Kidney,
By AUGUSTIN H. GOELET.
4. Inhibited Tubal Peristalsis: A Cause of Ectopic Gestation,
By O. G. PFAFF.
5. Conservative Surgery of the Sclerotic Ovary,
By HUGO O. PANTZER.
6. An Old-Time Quack Eye Doctor. The Chevalier John Taylor,
By BROWN PUSEY.

1. **Leprosy.**—Daland, after studying leprosy at Molokai formulates the following conclusion: which, he asserts, represent the prevailing opinion in Hawaii regarding the disease: (1) The *Bacillus lepro* is the cause of this disease. (2) This disease is feebly contagious. (3) The Hawaiian is peculiarly susceptible to leprosy. (4) The Caucasian possesses a high degree of immunity. (5) Syphilis predisposes to leprosy. (6) Heredity is a factor of but little importance in the causation of this disease. (7) Segregation prevents the spread of leprosy. (8) The precise manner in which this disease is ordinarily transmitted from the sick to the well has

not been proved. (9) There is no cure for leprosy. (10) Benefit may be derived from good hygiene, good food, climate, hot baths, and the antiseptic treatment of ulcerative surfaces.

3. Fixation of the Prolapsed Kidney.—Goelet presents a five-page illustrated article on kidney fixations. His own operation is described in full. He has operated by his method 159 times and has not a single failure to report. He asserts that it is not necessary to either scarify or remove any part of the fibrous capsule of the kidney. Firm adhesions can always be obtained if the kidney is held in immovable contact with the opposing structures for a sufficient length of time. For this purpose the author uses silkworm gut sutures, so inserted that they will not cut through the kidney capsule. Only two sutures are required. The author asserts that the operation, as he performs it, is practically free from danger.

4. A Cause of Ectopic Gestation.—Pfaff believes that the ciliated epithelium that lines the Fallopian tubes has for its function the protection of the ovum against the squeezing it is subjected to during the peristaltic action of the tubes caused by the presence of an ovum in their lumen. The passage of the ovum from the ovary to the uterus is due to this peristaltic action, rather than to the wave-like motion of the cilia of the epithelium lining the tubes. Paralysis of the peristaltic action will cause the ovum to lie motionless within the tube and ectopic gestation will result.

BOSTON MEDICAL AND SURGICAL JOURNAL.

November 12, 1903.

1. Present Problems—An Address to the Nurses of the Lakeside Hospital, By J. G. MUMFORD.
2. Stomachal and Intestinal Derangements and Affections of the Fauces, Pharynx and Air Passages, By BEVERLEY ROBINSON.
3. Routine Treatment in a Genitourinary Clinic; Functions of Such a Clinic, By F. J. COTTON, and R. F. O'NEIL.
4. Some Principles Involved in the Therapeutic Applications of Radioactivity, By WILLIAM ROLLINS.

2. The Nose, Throat, and Air Passages and Disturbed Digestion.—Robinson asserts that it is important to bear in mind that both acute and chronic diseases of the digestive organs are capable of producing morbid conditions in the air passages. It is also true, but to a more limited extent, that affections of the air passages are capable of causing acute and chronic digestive disturbances. Disturbances of the air passages due to faulty digestion may be brought about in three principal ways: (1) The nose and throat condition may be the expression of a general constitutional state. (2) They may result from direct irritation caused by acid eructations or vomit. (3) They may, it cases secondarily due to bacterial invasion, depend primarily on the reduced resistant power of the tissues caused by faulty or depraved nutrition. Digestive disorders, on the other hand, may be directly due to the swallowing of unhealthy secretions from the nose and throat. They may also be due to other causes not quite clear. Clinical experience has shown that a certain number of cases of disordered

digestion fail to improve until some septal deformity has been removed, or overgrown tonsils and adenoids ablated. The practical point is this: Nose and throat affections should not be treated in routine fashion merely by local applications, and operations on the nose and throat should not be resorted to unless the benefits to be obtained from them is quite evident.

3. Genitourinary Clinics.—Cotton and O'Neil have made a study of their experience in a Boston genitourinary clinic. Their paper is presented in two parts. The first discusses the best methods of treating the ordinary run of genitourinary diseases in dispensary practice. The second part of the paper discusses the true functions of a genitourinary clinic. Gonorrhoea is the bane of dispensary practice. If it is practicable, treatment by irrigation will give the best results. The authors are in favor of refusing treatment to all those who refuse to attend the clinics regularly. The negligent patients not only do themselves an injury but injure the community at large in a variety of ways. They cause a considerable waste of time without corresponding advantage to the clinic surgeons; they prevent the scientific treatment of disease; they lower the general percentage of cures and so, indirectly, cause the results obtained by legitimate medicine to be little better than those obtained through drugstore or quack treatment. Such patients, the authors hold, should be practically blacklisted and allowed to shift for themselves.

4. Radioactivity.—Rollins discusses in a general way the subject set forth in the title. The paper does not lend itself to abstracting, treating as it does of a number of disconnected facts and theories. It is very brief and may be of some use to those who are taking up radiotherapy.

MEDICAL NEWS.

November 14, 1903.

1. Chronic Villous Arthritis, with Special Reference to Its Etiology and Pathology, By CHARLES E. PAINTER, and WILLIAM G. ERVING.
2. Treatment of Tapeworm, By SAMUEL P. GERHARD.
3. X Ray Treatment of Cancer of the Uterus. Method and Results, By SINCLAIR TOUSEY.
4. Why Not Absolute Precision in Chyme Analysis? By MARK I. KNAPP.
5. Precipitins and Their Medicolegal Use, By JAMES EWING, and ISRAEL STRAUSS.

2. Tapeworm.—Gerhard recommends the following treatment for tapeworm: After a light supper the bowels should be cleared with one or two doses of castor oil or salts. The following morning, at six o'clock, 20 grains of pelletierine tannate should be given in capsules. After this has operated freely, in about two or three hours, the following mixture is exhibited:

Olei resinæ aspidii.....3ii
 Ætheris3ii
 Hydrargyri chloridii mitis.....3ii

M. et div. in capsule No. xvi.

S. Two every ten minutes.

Two or three hours later the worm will be expelled whole with its head fastened to its body. No

food must be taken until after the parasite is expelled.

3. X Ray Treatment of Cancer of the Uterus.—Toussey recommends the following mode of treatment: (1) Application of the x rays directly to the cervix and uterus, through the vagina. A Nott or Ferguson speculum will be found convenient for this purpose. (2) If there is a fibroid tumor present in the body of the uterus, as is usually the case, the x ray must be also applied through the abdominal wall directly to the tumor. (3) Application of the high tension discharge by means of vacuum electrodes must be made to the patient. The results of such a plan of treatment, the author states, are truly wonderful. This treatment is recommended only for the inoperable cases. The author has brought about symptomatic cures. He has not yet, however, formed an opinion as to the possibility of the complete disappearance of uterine cancer under x ray treatment.

4. Chyme Analysis.—Knapp, in his article, attempts to establish the three following propositions: (1) No better indicator is known for the quick and absolutely correct determination of free hydrochloric acid than the supersaturated alcoholic solution of tropæolin OO. (2) The use of dimethylamidoazobenzol as an indicator for free hydrochloric acid only in chyme is absolutely wrong and hence it may cause a mistaken diagnosis. As it reacts also on very weak solutions of organic acids it can be used for the quantitative determinations of such acids. (3) By the successive use of tropæolin, dimethyl, and phenolphthalein in the same specimen of chyme, we can determine quantitatively free hydrochloric acid, organic acids, and general acidity.

5. Precipitins and Their Medicolegal Use.—Ewing and Strauss conclude in this issue an exceedingly technical eighteen page paper on the subject set forth in the title. The paper does not lend itself to abstracting.

MEDICAL RECORD.

November 14, 1903.

1. Gonorrhœa in Infants, with a Report of Eight Cases of Pyæmia, By REUEL B. KIMBALL.
2. Terminal Syphilis and Tabes, By WILLIAM J. DOUGHERTY.
3. Traumatic Separations of the Lower Epiphysis of the Humerus and Their Treatment by the Extended Position, with Report of Two Cases, By GILBERT GEOFFREY COTTAM.
4. Emulsion-Albuminuria, By ISADOR H. CORIAT.
5. Report of a Needle in the Prostatic Urethra, By B. B. FOSTER.
6. A Case of Lead Osteoperiosteitis, By W. MOSER.
7. Abdominal Pain in Pneumonia, By CHARLES S. GRABIN.

1. Gonorrhœa in Infants.—Kimball treats of gonorrhœa rather as a systemic than a local infection. He reports eight cases of gonorrhœal pyæmia. Gonorrhœa is extremely hard to control in institutions for children. Of six hundred admissions, in twelve months, to the wards of Babies' Hospital, seventy of the patients suffered from some form of gonorrhœa. Of these cases not more than possibly ten per cent. suffered from the disease on ad-

mission. The author concludes as follows: (1) Gonorrhœa prevails among infants and children to an extent not fully appreciated by the medical profession at large, and has become a common epidemic in institutions where numbers of children are placed together. (2) The ordinary clinical forms which the gonococcus infection assumes in children are ophthalmia, vulvovaginitis, and pyæmia. (3) A series of cases of pyæmia, reported in this paper, occurred in infants, in whom no local lesion could be found to explain the mode of entrance of the organism to the general circulation. (4) The suggestion is made, that from a stomatitis due to the gonococcus such a systemic infection may arise. Gonorrhœal stomatitis in infants is a disease that needs further study. (5) Only by careful exclusion, by microscopical examination, and by complete isolation can this disease be absolutely debarred from a hospital where infants are cared for. (6) There is urgent need of public enlightenment on this subject. Those in charge of institutions for children, trained nurses and even parents, should be taught the frequency and virulency of this infection and the ease with which it is spread. It should be the duty of health authorities to include gonorrhœa among the acute infectious diseases of children.

2. Terminal Syphilis and Tabes.—Dougherty believes that the term parasyphilis, at least in so far as it is applied to tabes and paresis, is misleading and therefore objectionable. He suggests the term *terminal syphilis* in its stead. The author holds that the parasyphilitic affections are really due to the virus of syphilis and that the specific virus of the disease undergoes a gradual process of evolution. Therefore, in the place of the former three classical stages of syphilis, we should recognize four stages; the terminal stage being as truly syphilis as the preceding three. The author does not deny that tabes and general paresis may not at times be due to other causes than syphilis, but he apparently does assert that they do not infrequently occur as expressions of true though transformed syphilis. The author's paper is devoted to a fairly systematic consideration of the ætiology, symptomatology, prognosis and treatment of tabes and general paresis. His views, with the exception noted, follow the usual teaching.

3. Traumatic Separation of the Lower Epiphysis of the Humerus.—Cottam, after discussing the general character of the injury he writes about, reviews the various forms of treatment recommended in the text books. Most authors recommend that the arm should be fixed at an angle of about 90 degrees. The author reports two cases in which he set the arm in the fully extended position, in plaster, and in which the results were perfect functional use of the arm and elbow. He believes that the results he has obtained warrant him in giving this method a further trial.

4. Emulsion-Albuminuria.—Coriat reports a case of that rare affection, recently described by Cramer, and called by him emulsion-albuminuria. The author asserts that the milkiness of the urine is due to the presence of a proteid substance not in solution but in a peculiar colloidal physical state.

BRITISH MEDICAL JOURNAL.

October 31, 1903.

(Seventy-first Annual Meeting of the British Medical Association).

Section of Laryngology and Otology.

1. On the Position of Laryngology and Otology in the Medical Student's Curriculum,
By P. W. WILLIAMS.
2. A Discussion on the Operative Treatment of Malignant Diseases of the Larynx,
By SIR F. SEMON, T. GLUCK, and Others.
3. Two Cases of Epithelioma of the Larynx Remaining Well Two Years After Operation (Thyreotomy),
By E. S. YONGE.
4. A Discussion on the Technique of Operations on the Temporal Bone in Suppurative Middle-ear Disease,
By P. MCBRIDE, A. HARTMANN, and Others.
5. On the Local Use of Formalin in the Treatment of Nasal Polypi Before and After Operation on the Same by the Usual Methods,
By A. BRONNER.
6. Illustrations of the Effects Produced by the Singing Voice in a Suitable Medium,
By A. G. HAYDON.
7. A Discussion on the Upper Respiratory Tract as a Source of Systemic Infection,
By F. DE H. HALL, F. J. HORNE, and Others.
8. Difficulties and Insufficiency of the Stenosal Theory of Adenoid Deafness,
By D. McKEOWN.
9. The Surgical Treatment of Cancer of the Larynx,
By E. J. MOURE.

2. **Cancer of the Larynx.**—Semon discusses the operative treatment of cancer of the larynx as follows: (1) Intralaryngeal operation. From the infiltrating nature of the cancerous growth, its complete eradication by intralaryngeal methods would be almost impossible. Although he has reported a successful case, yet he would never deliberately try to remove an intrinsic cancer from the larynx by intralaryngeal methods. (2) Thyreotomy. This operation, if restricted to the cases in which it is really applicable, gives almost ideal results. But the following conditions are essential: (a) The operation must be restricted to early stages if intrinsic malignant disease. (b) For this purpose an early diagnosis is indispensable. (c) The operation must be thorough; no sentimental considerations regarding the amount of vocal power to be retained, must interfere with the removal of a sufficient area of healthy tissue around the new growth in all directions. (d) Should it be found, after opening the larynx, that the growth is more advanced than was thought, a more extensive operation must be performed. These conditions complied with, thyreotomy is the operation in early stages of cancer. (3) Partial extirpation of the larynx implies the removal of not less than one entire wing of the thyroid cartilage. The operation offers no greater technical difficulties than thyreotomy. (4) Total extirpation of the larynx. While the performance of this operation may, in some cases, be necessary to save the patient's life, yet Semon does not look favorably upon it, for the reason that the patient's after existence is so unpleasant. (5) Subhyoid pharyngotomy is suitable for cases in which the disease starts from the epiglottis or from the arytenoepiglottidean fold. It is a curiously fatal operation. (6) Palliative tracheotomy comes in question only where the patient

or his condition forbids the performance of total extirpation of the larynx.

Gluck describes his methods of performing thyreotomy, semilaryngectomy, and extirpation of the larynx. His results have been most satisfactory; out of twenty-two complete laryngectomies, death took place in only one—a man, aged seventy years, who died on the eleventh day, from iodoform poisoning. Out of twenty-seven partial laryngectomies, death took place in one—from hemiplegia after tying of the carotid. After the healing of these large operations the patients eat like normal individuals, and do not need a tracheal cannula. Tilley reports five cases of thyreotomy for malignant disease of the vocal cords, in four of which the patients are still alive and in perfect health—at six years, five and a half years, four years, and one year, respectively, after the operation.

3. **Epithelioma of Larynx.**—Yonge reports two cases of epithelioma of the larynx occurring in men aged fifty-seven and sixty-seven years, respectively, in which he performed thyreotomy with apparently perfect success. In both cases preliminary removal of a piece of tissue for examination gave positive information. Both patients have remained well two years after operation.

4. **Operative Treatment of Middle-ear Disease.**—McBride gives a historical résumé of the various operations on the temporal bone in suppurative middle-ear disease. Among them are the Schwartze operation and its modifications, Zaufal's and Stacke's methods by removal of the posterior wall of the meatus, the various modes of closing postauricular openings, etc. The history of operations upon the lateral sinus dates from recent times. The author discusses the question as to whether the jugular vein should be tied or not, and quotes in full three illustrative cases bearing on the point.

5. **Formalin in Cases of Nasal Polypi.**—Bronner calls attention to the good results following the use of formalin. After removing as much as possible of the polypi and diseased mucous membrane with the cold snare, he applied formalin on a probe with cotton wool to the roots of the polypi. He does not cut through the pedunculated polypi, but pulls them out by the roots, often removing with them the underlying diseased bone. After a few days a formalin spray (1 in 500 up to 1 in 100) is used t. i. d. for a week. If the middle turbinate is diseased, the anterior portion should be removed. The author has not had good results in scraping the accessory cavities under an anæsthetic, as advised by Lack, and further objects to the operation on the ground of its danger.

7. **Systemic Infection Through the Respiratory Tract.**—Hall calls attention to the fact that many systemic infections have their origin in the upper respiratory tract. Measles, influenza, diphtheria, all may begin there, and children with adenoids and enlarged tonsils are more liable to contract those diseases. Operative procedures on the nasal mucous membrane should not be performed in persons liable to septic and infectious

diseases. Follicular amygdalitis often follows intranasal cauterization. The intimate connection between the throat and acute rheumatism is shown by the frequency with which amygdalitis precedes the onset of rheumatism. Septic and pyæmic processes may be the result of infection through the upper respiratory tract, and chronic nasal affections play an important part in the production of facial erysipelas.

Horne holds that infective endocarditis, tuberculosis, Hodgkin's disease, and lymphosarcoma often arise in the upper respiratory tract. In two cases of infective endocarditis, autopsy showed the starting point of the infection to have been in the larynx at what Horne calls the vulnerable spot—a fold of mucous membrane commencing behind the vocal process and passing obliquely upward. Here secretion may stagnate, and a lesion of the laryngeal mucosa readily occur. As regards tuberculosis of the larynx the author makes the following positive statements: (1) When the larynx is infected with tubercle the disease is already established in the lungs. (2) By the time the disease in the larynx has advanced to ulceration the disease in the lung has advanced to cavitation. (3) When the disease in the lung is confined to the pure miliary form, the larynx is never infected. He has already published cases of Hodgkin's disease, in which ulceration of the larynx could be demonstrated as a point of entrance for the infecting agent.

Goodale states that chronic absorption of the products of bacterial decomposition is unlikely to occur in the pharyngeal or lingual tonsil, but takes place with frequency in the faucial tonsils. In the latter the chief factors favoring the development of saprophytic bacteria are antecedent attacks of acute inflammation, either alone or associated with retrograde metamorphosis. Histologically, there is endothelial proliferation. Clinically the condition is characterized by evidences of toxine absorption into the system. It favors the development of quinsy, the persistence of diphtheria bacilli after that disease, and finally the penetration of tubercle bacilli into the lymphatic system. Tilley says that when a chronic purulent focus exists in the nose or nasopharynx, the general health may suffer profoundly as a result of the constant absorption of septic material. When operations have been performed in these regions fatal results may follow unless care has been taken to provide and maintain surgical cleanliness of the parts.

Patterson calls attention to the occurrence of albuminuria in patients suffering from atrophic rhinitis.

LANCET.

Octobr 31, 1903.

1. The Mental Diseases of the Climacteric,
By G. H. SAVAGE.
2. Carcinoma of the Colon, By W. J. WALSHAM.
3. Harben Lectures on Ætiology of Infectious Diseases,
Hygiene and Serum Researches, and Tuberculosis.
(Abstract), By F. HUEPPE.
4. Large Bile Cyst of the Liver; Jaundice Without Cholelithiasis; Incision, and Drainage; Recovery.
By A. H. G. DORAN.

5. On the Great Importance from the Point of View of Medical Science of the Proof that Bacteria and Their Allies Are Capable of Arising *de novo*,
By H. C. BASTIAN.
6. The Treatment of Pulmonary Tuberculosis by High-frequency Currents (Low Potential) and Intralaryngeal Injections of Antiseptics, By J. C. BOWIE.
7. Some Cases of Dilatation of the Bronchial Tubes After Measles,
By T. FISHER.
8. Four Cases in Which a Cystic Ovarian Tumor, Which Was Not Malignant, Developed After a Similar Growth of the Ovary on the Same Side Had Been Removed,
By J. D. MALCOLM.
9. An Adjunct to Uterine Irrigation in Puerperal Fever,
By D. WATSON.
10. A Case of Cutaneous Neurofibromatosis in Which Newly Formed Nerve Fibres Were Found in the Tumors,
By A. WHITFIELD.

1. **Climacteric Insanity.**—Savage states that while insanity may come on in people who have ceased to menstruate prematurely, yet the majority of cases are coincident with the ordinary climacteric—from forty-five to fifty years of age. Single women are oftener affected than married women, and widows oftener still. A climacteric should be recognized in men as well as women, though it usually is not. A large proportion of cases of climacteric insanity are associated with the use of alcohol. At first the usual clinical symptoms of the climacteric are exaggerated, passing into changes and accentuations in the individual—defective control, impulsive acts, hallucinations of sight, etc. Kleptomania is most commonly met with in the climacteric woman. The mental disorders are in most cases, of a depressed type, melancholic and hysterical, with ideas of persecution. These ideas may pass into a definite melancholia, and many patients make an end of themselves by drowning, etc. In other cases with the expiration of the reproductive function there may be accentuation of lust or passion. The mania seen in such cases is generally a result of some abnormality in the reproductive organs with eroticism, obscenity, etc. Masturbation is very common. Next to melancholia, the most common form is delusional insanity with ideas of persecution. The prognosis of climacteric insanity is somewhat better than that of other forms—cases may last four or five years and yet recovery ensue. Fully organized ideas of persecution, lasting one or two years, are rarely recovered from. Contrary to the usual belief, the onset of the climacteric exerts no influence on insanity which has arisen previous to the menopause.

2. **Cancer of the Colon.**—Walsham brings out the following points: The columnar-celled carcinomata occurring in the colon, are among the most benign forms of cancer. At first, the cancer is localized to the bowel; it has not affected the lymphatics, and if cut away early enough, the patient may be cured or given from three to eight years of relief. All doubtful cases of persistent painful intestinal indigestion should be examined under an anæsthetic—both the abdomen and the rectum. An exploratory incision does no harm and may do a great deal of good by discovering the cancer at an early stage. He strongly urges

the performance of colotomy as a first step, bringing the cancer mass out on the abdomen. The sigmoid is opened above the cancer, a Paul's tube inserted, and the fæces drained away. After ten days the cancer mass can be removed, and union performed by means of a Murphy's button.

3. **Ætiology of Disease.**—In the Harben lectures Hueppe gives his views as to the causation of disease. He holds, contrary to Koch and others, that predisposition plays a great part. Immunization proves its existence, increasing as it does the faculties which exist as predisposition. Predisposition to disease may alter according to age, and is influenced by such external conditions as cold, heat, hunger, alcoholism, etc. Neither the disease germs nor the diseased body cells constitute the sole entity of a given disease. Hueppe regards disease as a function of three changeable factors—viz., predisposition, stimulus, and condition, any one of which may vary from 0 to infinity. The germs only represent a specific stimulus. Natural resistance, artificial habituation, and susceptibility to toxins are all correlated, and a similar correlation exists in immunity due to bactericidal substances. As regards tuberculosis human and bovine bacilli must be regarded as but varieties of one species of organism. The respiratory passages are not the only part of entry for the bacillus—infection also takes place through the tonsils, the intestine, etc. A special susceptibility determines which organs shall be affected—the lungs in the adult, the intestine in childhood. That a specific inherited predisposition exists, is proved by the fact that in certain families the children become tuberculous on attaining a certain age.

4. **Liver Cyst.**—Doran reports the case of a woman, aged forty-two years, suffering from a large bile cyst of the liver, unconnected with the gall bladder. Although the patient was deeply jaundiced, no gall stones were found at the operation, which consisted simply in incision and drainage. Simple non-hydatid cysts of the liver are rare, and rarely give rise to symptoms during life.

5. **Origin of Bacteria.**—Bastian calls attention to the possibility that microorganisms may arise *de novo*. When germ free chemical irritants are injected beneath the skin, in twenty-four hours the injected matter is swarming with bacteria. Common bacilli and micrococci constantly enter the body through the intestinal and respiratory mucous membranes and thence gain access to the lymphatic system. So that for the origin of this or that specific disease it may not be necessary that a *de novo* origin of microorganisms should take place. Under the influence of unhealthy general or local conditions the common microorganisms thus entering the body may possibly be made to take on new properties, and be, in fact, converted into one or other of the so-called "specific" or "pathogenic" organisms. The author takes up in turn septicæmia, typhoid fever, tuberculosis, and leprosy and brings forward evidence, satisfactory to him, that each of them is capable of arising *de novo*.

6. **High-frequency Currents in Phthisis.**—Bowie found that the passage of a current of electricity through the toxins of tuberculosis considerably modified or annulled their toxicity, the greater the volume of electricity the more rapid the action. Led by these facts he has tried electricity as a mode of treatment of pulmonary tuberculosis. He reports four cases so treated—in all apparent recovery has ensued and in three out of four with entire disappearance of the lung lesion. High frequency currents of low potential were used, the electrodes being applied directly to the thoracic walls, so as to embrace the situation of the lesion. The physique, temperaments, and habits of the person must be considered—for instance, chronic alcoholism is a bar to successful treatment. Intralaryngeal injections of iodine, thymol, menthol, and guaiacol are also of great service.

7. **Bronchiectosis.**—Fisher reports four cases of dilatation of the bronchial tubes in children after measles. While some cases of dilatation are due to pressure upon a bronchus or upon one of its divisions by a caseous gland, and others to blockage of the bronchus or one of its divisions by a foreign body, some cases undoubtedly occur as a result of bronchopneumonia. In the four cases here reported the children were free from any symptoms of disease in the chest until they were attacked with measles. Within a few weeks or months of the onset of measles death occurred and dilatation of the bronchial tubes in varying degree was found.

9. **Uterine Irrigation.**—Watson holds that in cases of puerperal fever, in which irrigations of bichloride, etc., are followed by douches of plain boiled water, the use of the latter (water) is prejudicial to the recovery of the patient. The water dissolves the toxins and so promotes their rapid absorption into the circulation, and assists the growth of bacteria. The author, after expressing as much of the douche solution as can be got rid of in that way, injects into the cavity of the uterus one ounce of glycerin containing three per cent. of formalin. This solution is innocuous and un-irritating, and in addition to its powerful antiseptic action it removes all water from the uterus and its use prevents any rise of temperature following the douche. The author reports two severe cases of puerperal fever in which this procedure worked well.

10. **Neurofibromatosis.**—Whitfield reports a case belonging to the group of rare morbid conditions first collected by von Recklinghausen—i. e., tumors on the nerves, tumors on the skin, and patches of pigmentation. The author's patient was fifty years of age, and his scalp, face, and trunk were thickly covered with softish tumors, varying in size from that of a pea to that of a walnut. Their color was of a darkish-red, and while adherent to the skin they were freely movable over the subjacent tissues. Section of one of the tumors showed fairly numerous nerve fibres, usually rather widely separated from one another, as if by proliferation of the endoneurium and perineurium themselves.

Letters to the Editor.

THE DANGER OF OPERATING ALONE.

68 WEST EIGHTY-EIGHT STREET,

September 26, 1903.

To the Editor,

Sir: In the *Evening Sun* for September 25th there is an account of the sudden death of a surgeon while performing what, to him, was a trivial operation. He died while attempting to stop hæmorrhage, yet before he had altogether stopped it. He had no assistant. "The patient was nearly dead when a physician arrived, and was only revived by hard work."

While we are all shocked to hear of a death so sudden—a man in health and vigor being struck down with hardly a moment's warning, and may for the moment hold the hand of death in greater awe—we should at the same time take warning from this unforeseen complication arising during the course of a simple operation, and anticipate the law makers by ourselves resolving never to undertake the performance of any operation in which there is any degree of danger to the patient unless there is present another (nurse or doctor) capable of placing the patient in safe condition at least until additional help may be procured.

How many women in confinement are placed in jeopardy every day—just as this patient was while undergoing some operation trivial when compared to a confinement! How many doctors will amputate a finger in their office, or single handed remove the uvula or tonsils! In confinement cases the doctor has a nurse, it is true, often a "nurse" only—worse than none except in just such an accident as this one reported from Emporia, Kansas.

In a word, a doctor should have a competent assistant in all cases where his sudden death would leave the patient in grave danger.

RICHARD N. W. K. HORNER.

RENAL DECAPSULATION.

NEW YORK, November 7, 1903.

To the Editor,

Sir: In a letter published on page 918 of your issue of to-day, Dr. Byron Robinson proposes to call renal decapsulation the Ferguson-Edebohls operation. Your correspondent, for one, would respectfully beg leave to object to Dr. Robinson's proposition, and for two reasons. In the first place, the custom of designating an operation by the name of a surgeon is to be deprecated on general principles, as tending to confusion and unnecessary burdening of an already burdensome medical nomenclature. Such a course is pardonable and tolerable only when, and only as long as, a good and expressive name for the operation itself cannot be found or coined. Such is not the case in the instance under consideration. In the second place, renal decapsulation, viewed simply as an operative procedure, is original with neither Ferguson nor Edebohls. E. Rose, reported by R. Wolff (*Deutsche Zeitschrift für Chirurgie*, XLVI, 1897, 533-582), strips off the entire capsule proper as a routine measure in every neph-

ropexy, and his nephropexies extend back to 1883, a period antedating the entrance of either Ferguson or Edebohls upon the field of renal surgery. E. Lobstein (*Beiträge zur klinischen Chirurgie*, XXVII, 1900, 251-280), also decapsulates the kidney entirely in every nephropexy, and a number of surgeons, including the writer, have now and then unintentionally performed complete renal decapsulation in attempts to deliver or expose a refractory kidney for exploration or further operative procedure. These remarks apply to complete renal decapsulation; partial renal decapsulation, as part of the technics of nephropexy, has been common property of surgeons the world over for nearly twenty years past.

Renal decapsulation or nephrocapsectomy clearly, concisely, and fully expresses the nature of the operative procedure under consideration, and should displace the use of such terms as the Edebohls or the Ferguson-Edebohls operation.

G. M. EDEBOHLS.

THE WITHDRAWAL OF ALCOHOL IN DELIRIUM TREMENS.

321 CENTRE STREET,

DORCHESTER, MASS., October 21, 1903.

To the Editor,

Sir: In most of the papers that have appeared in your symposium on delirium tremens the immediate withdrawal of alcohol has been recommended. This I consider a serious error and often a fatal one. I am satisfied that in all cases it increases the delirium and prolongs the suffering, and that with many patients it has proved the vital mistake which has sealed their doom.

To those unaccustomed to the treatment of alcoholism it might seem evident, on first thought, that the drunker a man was the greater the necessity for the immediate and total withdrawal of all forms of alcoholic liquors. They would say that, as spirits produced the intoxication, therefore the first indication was the immediate removal of the cause, without parley and without mercy. The man has had too much liquor, therefore give him no more. One extreme should immediately follow the other.

In the practical treatment of inebriety, however, this method has proved not only unsatisfactory, but often disastrous. The fallacy of this reasoning may be seen by applying it to the treatment of other pathological states, such, for instance, as starvation. Here the patient has had insufficient food, and if one extreme should immediately follow the other, he should at once gorge himself. In the first case the patient has had an excess of drink and is therefore totally and suddenly deprived of it. In the second case he has been brought to death's door by insufficient food and is therefore immediately overloaded with the heartiest nourishment. The theory of treatment is the same and equally absurd in the one instance as in the other. In both cases it produces suffering and endangers life. After many years of experience in the sanatorium treatment of alcoholism I have adopted as a routine measure the administration of alcohol in delirium tremens. As a result I have never lost a patient.

C. J. DOUGLAS.

Proceedings of Societies.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

TWENTY-NINTH ANNUAL MEETING, HELD IN MEMPHIS, TENN., ON OCTOBER 7, 8, AND 9, 1903.

(Continued from page 968).

The Hypodermic Use of Mercury in Syphilis.—Dr. S. P. COLLINGS, of Hot Springs, Arkansas, said mercury was the only drug that was a specific in syphilis; all others were adjuvants only, and included among the latter were the iodine compounds. Delay in arriving at what was probably the proper standing of the hypodermic use of mercury in syphilis had been caused by the multiplicity of preparations of mercury that had been used, the methods employed in their administration, and the fact that there had been so many overzealous advocates alleging quick cures by the method, which had brought it into disrepute. The cases to be selected for the hypodermic use of mercury should be largely those in which there was an existing necessity for the patient to be brought rapidly under the influence of it. The question as to its use as a routine treatment should be decided by the attending physician from time to time.

Specialism in Its Modern Significance.—Dr. ALBERT B. HALE, of Chicago, said that specialism had changed from its earlier condition, where tradition sharply defined the work, because the surgeon, the obstetrician, and the internist recognized that no real dividing line separated their activities. The young man of to-day was so well educated by his college and by his postgraduate work that he was able to practise in many departments formerly exclusively held by specialists. But modern specialism meant time to devote to the delicate technique of diagnosis and of treatment. If these functions were not recognized for the patient's good, but if every practitioner accepted patients on whom to practise, even when not equipped for it, the advance of true specialism was discouraged, and the practice prevented the profession from attaining the broadest culture.

The Early Diagnosis of Mental Diseases.—Dr. C. B. BURR, of Flint, Mich., defined insanity as "a prolonged departure from the individual's normal standard of thinking, feeling, and acting," saying that this would for working purposes be found sufficient. A comprehensive definition would include mental defect of whatever cause and mental perturbation of whatever degree. Any or all of the elemental processes of sensation, perception, ideation, reasoning, judgment, or memory might be impaired in insanity. The nature and degree of impairment of these elemental processes and of emotion and volition, in different forms of insanity, were touched upon. Subjects discussed at greater length were the distinction between confirmed inebriety and true insanity of alcoholic origin, the diagnosis of alcoholic pseudoparesis and parietic dementia, certain phases of hysteria, and the diagnostic difficulties pertaining to paranoia and recurrent mania. Neurasthenia was a euphemism often employed

to obviate the necessity of plain speaking, or might be used erroneously to explain the symptoms in the early stages of an organic malady. The self-deception on the part of the physician or his inaccuracy in diagnosis led to improper methods of management, and the prescription of travel often made for such patients was deplored, and incidentally hospital care for neurasthenic patients was advised.

The Therapeutic Value of Heat and Cold Applied to the Spinal Cord.—Dr. W. FRANK GLENN, of Nashville, Tenn., in discussing this subject, drew the following conclusions: 1, Nothing should ever be put into the stomach except such substances as form a component structure of the body. 2, If this rule was rigidly adhered to, there should be no digestive disturbances, and everybody would have normal blood. 3, Since the blood was the life, when the blood had its structural elements normal and every cell was receiving its proper supply, no more, no less, disease could not exist. 4, Since it was known that the amount of blood in any part was controlled by the action of the vasomotor centres of the spinal cord and the sympathetic ganglia in close proximity to the cord, when these centres were performing their functions properly, the blood circulation must be normal and no disease could exist. 5, When there existed any disease causing an increase of blood in the capillaries of an organ, the application of heat over the vasomotor centres presiding over that organ caused almost at once a normal flow of blood in them, and consequently a normal circulation in the organ affected. 6, When there existed any disease which lessened the normal amount of blood in any organ, then the application of ice over the vasomotor centres presiding over that organ would cause a normal amount of blood to flow to it, resulting at once in a normal circulation and a consequent subsidence of the disease.

Brain Strain Dyspepsia.—Dr. C. H. HUGHES, of St. Louis, called attention to conditions that were altogether too much overlooked in dyspepsia, as encountered among the brain strain and brain weary and worn men and women of affairs, connected with defective innervation in the stomach.

What a General Practitioner Should Do in the Early Stages of Mental Disease.—Dr. BROOKS F. BEEBE, of Cincinnati, said the practitioner should teach people that if they would live happy and useful lives, and produce healthy and happy progeny, they must not eat too much of the fruit that was sour. The great progress in recent years in the treatment of mental diseases was a result of the recognition that psychology rested alone on physiological bases, and metaphysical theories no longer had weight. In the treatment of mental diseases the intelligent physician should proceed in the same way as in treating other affections.

Masked Epilepsy.—Dr. W. B. FLETCHER, of Indianapolis, said that this disease was usually unrecognized until it had progressed to a degree dangerous alike to the patient and those about him. Masked epilepsy presented one of the most intricate medicolegal questions. Little was

known of the pathology. Among adults it was usually caused by alcoholic, syphilitic, and auto-toxic conditions. Treatment should begin with the mildest symptoms and war be waged on the vicious constitutional tendencies.

Infantile Paralysis; Its Nature and Treatment.—Dr. ALBERT E. STERNE, of Indianapolis, said this was essentially an infectious disease and was regarded by some authors as the purest form of a true nerve tissue process. When the child became ill, almost all symptoms pointed to an affection of the stomach, usually a few days before paralysis set in. If evidences of profound nervous involvement were found, associated with vomiting, it should serve as a diagnostic and prognostic warning. Practitioners were confronted with a problem of a deep seated inflammation in the spinal cord itself. Counterirritation should be used along the spine, with antiphlogistic applications and the constant use of dry cold to the vertebral column. Perfect rest should be maintained. No specific was known. After paralysis had set in, the nerve cells themselves were the seat of inflammation. As soon as possible electric stimulation should be applied to the paralyzed members. All measures were poor substitutes for the vigorous ones recommended in the initial stage. Results could then be attained which were incomparably superior to the very best secured by any method later on.

Some Recent Investigations Upon the Action and Therapeutical Value of Currents of High Potential and Frequency.—Dr. CURRAN POPE, of Louisville, mentioned a case of neurasthenia in which an abscess developed in the left thumb. The pus was evacuated and a high frequency current applied for five minutes. There was immediate relief from pain and no pus was found afterward. These experiences had been repeated in many instances. The author was satisfied that the high frequency current had a germicidal effect on pus and pus-forming bacteria, and that this was in proportion to the presence of the ultra-violet ray. The author was now experimenting and gathering clinical data with reference to the direct action of the violet rays alone.

The Local Lesions and Treatment of Amœbic Dysentery.—Dr. JAMES P. TUTTLE, of New York, said there could no longer be any doubt that there was a type of dysentery due to infection by the *Amœba dysenteriae*. Whether catarrhal, bacillary, or amœbic, dysentery had its origin in the large intestine. In his investigations he had found that the ulcerative lesions decreased as we ascended upward from the rectum into the sigmoid, and in several instances entirely disappeared at the length of the sigmoidoscope. Ulceration of the rectum was always present in cases of chronic dysentery in soldiers returning from the Philippines. Complications might be summed up as abscess of the liver and stricture of the bowel. As to treatment, the expedient of flushing the bowel with cold water had been suggested, and repeated experiments had proved its worth. Flushings were given three or four times a day from a fountain syringe. In winter, water direct from a hydrant was used; in summer, a little ice was introduced. At least one douche a day

was continued for eight weeks. The treatment of rectal ulcers should be carried on according to requirements.

Neuroses of the Stomach and Intestines.—Dr. FRANK P. NORBURY, of Jacksonville, Ill., read this paper. In reviewing the principal neuroses of the stomach and intestines, he said, it was evident that the background of all was the neuropathic constitution. In treatment one should first consider this basis, and while doubtless, as investigations went on in the study of these diseases, a more definite pathology would be outlined, yet one would always have to consider the predisposition as a primary and important ætiological factor. In treatment, it was necessary to follow the methods which best combated this feature. The rest treatment met these indications, and how well depended upon the thoroughness with which it was practised. When each case was studied with consideration of all ætiological factors and carefully watched during the course of treatment, the results would be highly satisfactory.

Castor Oil in the Treatment of Typhoid Fever.—Dr. C. C. BASS, of Columbia, Miss., read a paper on this subject (to be published).

(To be continued.)

Book Notices.

Protozoa and Disease. By J. JACKSON CLARKE, M. B. Lond., Author of *Surgical Pathology and Principles*, etc. New York: William Wood & Company, 1903.

Much of the matter contained in this book appeared about ten years ago in a series of articles. Since that time but few notable discoveries have been made, the more complete study of the malarial sporozöon being the most important. The author describes first unicellular organisms and the cell in general, and illustrates the text very fully with diagrams of spore formation and cell division. Then he takes up the *Sarcodinæ*, *Sporozoa*, *Gregarinidæ*, *Coccidia*, *Hamosporidia*, *Neosporidia*, *Serumsporidia*, *Flagellata*, and *Ciliata*. All the important subvarieties are included, and not only is each organism described in regard to its life processes, its morphology, and habitat, but its relationship to pathology is given as well.

In a short chapter on the diseases that *Protozoa* themselves are subject to, the observations made by Metchnikoff and others are recorded. These relate to the invasion of *Amœba*, *Paramœcia*, and other *Protozoa* by bacteria, and in some instances by parasitic fungi, such as the *Synchytriaceæ* which have been found in certain of the *Flagellata*. These intracellular parasites seem to resist the digestive power of their hosts and may even cause their death. According to the author, it seems not unlikely "that *Protozoa* may serve as intermediaries in communicating to man some of their own diseases."

A rather brief chapter on the usual methods of examination follows, and in an appendix a note on the microgamete phase of *Coccidium oviforme* and a committee report on the same subject are given. The book is well written and the typographical errors are few. We heartily recommend the work to all interested in this special field.

The Surgical Treatment of Gastric and Duodenal Ulcers. By B. G. A. MOYNIHAN, M. S. (Lon.), F. R. C. S. Eng., Senior Assistant Surgeon, Leeds General Infirmary; Consulting Surgeon to the Skipton Hospital and to the Mirfield Memorial Hospital; Member of the Board of Examiners in Anatomy for the Fellowship, and formerly Arris and Gale Lecturer, Royal College of Surgeons of England. Illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Pp. 5-83. (Price, \$2.50.)

This brochure is founded on the personal experience of the author in the operative treatment of simple ulcer of the stomach and duodenum, and contains a tabulation of one hundred cases of operation for gastric ulcer, its complications and sequelæ. The subject is dealt with under the headings, perforation, hæmorrhage, chronic ulcer, and hour glass stomach.

The treatment of perforation of the stomach laid down by Moynihan in no wise differs from that of perforation of the other hollow viscera, as generally practised, but the author directs attention to the frequency of gastric perforation and to the coincidence of gastric and duodenal ulcers.

In large duodenal ulcers, where the suture called for contracts the calibre of the bowel, a gastroenterostomy is added. The author's attitude in cases of gastric hæmorrhage is conservative. An operation is exceptionally indicated in the acute forms of ulceration, and only in the copious recurring hæmorrhages of the chronic ulcer. For the cure of the latter, gastroenterostomy is the sovereign measure. The technics advocated is of the simplest nature. All coupling devices are deemed superfluous. The detailed narrative of the operation is convincing of the author's orthodoxy in asepsis, and this is still further borne out by the low mortality of one death in sixty-nine cases calling for gastroenterostomy at his hands. As to the hour glass stomach, the author holds that in the greater number of instances gastric ulceration preceded it.

The value of this book arises from the fact that the author discusses mainly the mooted points and pitfalls of the affections considered.

Operative Surgery. By HERBERT WILLIAM ALLINGHAM, F. R. C. S., Surgeon to the Household of His Majesty the King, etc. New York: William Wood & Company, 1903.

In the face of so many operative surgeries, it is difficult to assign the newcomer a place. The distinguished authorship of the work, however, is a feature that must attract the attention of physician and surgeon to the very concise and accurate narrative of all well accepted operative measures therein treated. Routine measures only are discussed.

The introductory chapter briefly comprises in a few pages the principles of asepsis and surgical technics; then follows, in seven parts, the description of operations, regionally considered. Preceding the description of each operation is a short sketch of such anatomy as is called for in its execution.

The undergraduate will find this work unequivocal in its advice and a great help in acquiring a working basis of the elements of surgical opera-

tions. The illustrations are well chosen and of an instructive character.

LIST OF BOOKS RECEIVED.

The Four Epochs of Woman's Life. Maidenhood, Marriage, Maternity, Menopause. Second Edition, Revised and Greatly Enlarged. By ANNA M. GALBRAITH, M. D., Author of "Hygiene and Physical Culture for Women"; Fellow of the New York Academy of Medicine, etc. With an Introductory Note by JOHN H. MUSSER, M. D., Professor of Clinical Medicine, University of Pennsylvania. 12mo volume of 247 Pages. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, \$1.50 net.

A Manual of the Practice of Medicine. Sixth Edition, Thoroughly Revised, Enlarged and Reset. By A. A. STEVENS, A. M., M. D., Professor of Pathology in the Woman's Medical College of Pennsylvania; Lecturer on Physical Diagnosis in the University of Pennsylvania; Physician to the Episcopal Hospital and to St. Agnes' Hospital; Fellow of the College of Physicians of Philadelphia, etc. Post-octavo of 556 Pages, Illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Flexible Leather, \$2.25 net.

Manual of Medicine. By THOMAS KIRKPATRICK MONRO, M. A., M. D., Fellow of, and Examiner to, the Faculty of Physicians and Surgeons, Glasgow; Physician to Glasgow Royal Infirmary, and Professor of Medicine in St. Mungo's College; Formerly Examiner in the University of Glasgow, and Pathologist to the Victoria Infirmary. Philadelphia and New York: W. B. Saunders & Company. London: Baillière, Tindall, and Cox. Pp. xvii-901.

Practical Gynecology. A Comprehensive Text-Book for Students and Physicians. By E. E. MONTGOMERY, M. D., LL. D., Professor of Gynecology, Jefferson Medical College; Gynecologist to the Jefferson Medical College and St. Joseph's Hospitals; Consulting Gynecologist to the Philadelphia Lying-in Charity and the Kensington Hospital for Women. Second Revised Edition. With Five Hundred and Thirty-nine Illustrations, the Greater Number of Which Have Been Drawn and Engraved Specially for This Work, for the Most Part from Original Sources. Philadelphia: P. Blakiston's Son & Company, 1012 Walnut Street. 1903. Pp. xxxiii-900. (Price, \$5.00 net).

Modern Surgery: General and Operative. Fourth Edition, Greatly Enlarged and Entirely Reset. By JOHN CHALMERS D'ACOSTA, M. D., Professor of the Principles of Surgery and of Clinical Surgery in the Jefferson Medical College, Philadelphia. Octavo Volume of 1,099 Pages, with Over 700 Illustrations, Some in Colors. Philadelphia, New York, London: W. B. Saunders & Company. 1903. Cloth, \$5.00 net; Sheep or Half Morocco, \$6.00 net.

Lessons on the Eye, for the Use of Undergraduate Students. By FRANK L. HENDERSON, M. D., Ophthalmic Surgeon to St. Mary's Infirmary, and the Christian Orphans' Home; Consulting Oculist to the St. Louis City Hospital; the Wabash Railway; and to the Terminal Railway Association; Member of the Missouri State Medical Association; Member of the St. Louis Medical Society, and Trustee to the St. Louis Medical Library Association. Third Edition. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1903. Pp. viii-204.

Syphilis in Dentistry. By L. BLAKE BALDWIN, M. D., Chicago, Ill.; Professor of Dermatology and Venereal Diseases, Post-Graduate Medical School; Professor of Clinical Dermatology, Medical Department, University of Illinois (College of P. and S.); Attending Dermatologist to Cook County Hospital, and the Provident Hospital; President of the Samaritan Hospital; Fellow Chicago Academy of Medicine, etc., etc., and EZRA READ LARNED, M. D., Chicago, Ill., American Association for the Advancement of Science; Chicago Academy of Science; American Medical Association; Illinois State Medical Society; Chicago Medical Society; etc. Chicago: E. H. Colegrove. 1903. Pp. 120. (Price, \$1.50).

The Practice of Obstetrics. Designed for the Use of Students and Practitioners of Medicine. By J. CLIFTON EDGAR. Professor of Obstetrics and Clinical Midwifery in the Cornell University College; Attending Obstetrician to the New York Maternity Hospital. With 1,221 Illustrations, Many of Which Are Printed in Colors. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1903. Pp. xvi-1111. (Price in Cloth, \$6.00 net).

Miscellany.

The Late Dr. O. A. White and Dr. L. P. Walton.—At a meeting of the Medical Association of the Greater City of New York, held November 9, 1903, the report of a committee appointed to prepare a suitable minute on the death of Dr. Octavius A. White was received and adopted. It was devoted to a eulogium of the character and eminent services of the deceased, and included the following tribute quoted from the Oakland (Cal.) *Tribune* of May 28, 1903: "There has just died in New York one of the greatest of the heroes produced by the civil war; yet his name is absolutely unknown to ninety-nine out of every hundred of his countrymen. This hero was Dr. Octavius A. White, famous as a yellow fever expert. When yellow fever attacked the Federal prisoners at Florence, South Carolina, his attention to them was tireless. All during the terrible years of civil strife he was indefatigable in healing the sick and wounded of both armies, and risked his life and health in the pursuit of his high calling with greater frequency and daring than any soldier in the field. It is a commentary on the unequal division of the awards of merit, in popular estimation, that the heroism of such a man should be passed over and forgotten by the mass of men, while the deeds of hundreds of lesser men, who sought to slay or win glory on the battle field, are commemorated in marble and bronze. . . . We raise monuments to those who kill, and leave unmarked the tombs of those who cure."

The conclusion of the report was as follows: With a public life full of noble achievements for suffering humanity and a home life illumined by the most charming of domestic traits, his memory will be cherished for years that are to come by all who knew him.

Your committee, in presenting this minute, unanimously offer the following resolutions:

Resolved, That in the death of Dr. Octavius A. White this country and community have lost a valued citizen, and our profession of medicine an honored member.

Resolved, That we extend to the bereaved family of Dr. White our profoundest sympathy for them in this their period of bereavement.

Vivat post funera virtus.

(Signed) THOMAS E. SATTERTHWAITE,
JOHN G. PERRY,
REYNOLD WEBB WILCOX.

At the same meeting the following report on the death of Dr. Luis P. Walton was received and adopted.

P. BRYNBERG PORTER, M. D.,
Recording Secretary.

Dr. Luis P. Walton was among the earliest members of this association. Born in England fifty odd years ago, he came to this country with his family at an early age. He was educated here, having been graduated at Columbia College in 1863 and at the College of Physicians and Surgeons in 1870. His death, which was sudden enough to be almost tragic, occurred in London early in September of this year.

He was one of the few representatives of the

old school of general medical practitioners, and in that capacity he occupied a position of peculiar confidence and affection in the hearts of a large number of patients. They sought his advice in many other matters besides those appertaining to their physical ills, and they always found in him a patient and sympathetic listener and a sound and earnest adviser. Few who have not been general practitioners themselves can realize the extent of the responsibility and of the unremitting toil involved in caring for a *clientèle* as large as his.

He was a genial, kindly gentleman of wide sympathies and general interests, with a vigorous, active, masculine intellect; always cheerful, courageous, sympathetic, and ardently devoted to his friends. For public professional honors and appointments he cared but little, but he was ever loyal to the profession of medicine and generous in his dealings with its members.

The suddenness of his death was very shocking to his family and friends, who were wholly unprepared for it; but it was exactly the kind of ending which he would have chosen for himself. Although well aware that such an end was not unlikely from the persistence of certain symptoms whose gravity he did not underestimate, he was uncomplaining, patient, heroic, with a depth and earnestness of character well known and recognized by his intimates; possessed of a shrewd and droll humor and a remarkably alert intelligence.

His affectionate devotion to the land of his birth, which amounted almost to a passion, never made him unfair to the land of his adoption, and always inspired respect among those who knew him best.

GEORGE L. PEABODY, }
HENRY S. NORRIS. } *Committee.*

The Medical Books of a Year.—The *Medical Library and Historical Journal* for October gives a "practically complete record of all medical books (exclusive of serial publications of all kinds, including transactions, year books, government reports, periodicals, etc., and graduating theses) published during the year" between October 1, 1902, and October 1, 1903. From these figures it appears that America is answerable for the production of 367 new books; Germany follows, with 354; then come France, 288; England, 250; and miscellaneous, 25. The average price per volume was \$1.92. A consideration of the data gathered leads the *Journal* to remark that America leads the world in medical book production, and that half the medical books published are in the English language. Moreover, the average price of books published in English at \$2.64 (America), and \$2.25 (England), as against \$1.46 (Germany) and \$1.39 (France). French and German books are, however, not usually bound, which would to some extent, at least, account for the difference.

The Sanitary Importance of the Back Yard.—Sir James Crichton Browne, in a Presidential New Year's Address, in 1892, to the Sanitary Inspectors' Association made the following weighty remarks:

"The absence of the back yard marks the lowest point in insanitary habitation, as in those abominable back-to-back houses of which Mr. Rowntree tells us there are still 1,398 in the City of York; and the next worst arrangement is the common court shared by a considerable number of houses built round it, unpaved, partly paved or cobbled, often full of holes, water-logged, and reeking with filth. The back yard connotes emergence into a higher domiciliary sphere. It is a precious possession, the recreation ground of the family of a summer's evening, a breathing space, a technical school, a gymnasium, a museum, a field for the cultivation of hobbies, that should be jealously preserved."

We wonder what proportion of houses in New York possess a back yard.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending November 13, 1903:

Smallpox—United States.

Place.	Cases.	Deaths.
Alabama—Mobile.....Nov. 1-7.....	2	
Illinois—Belleville.....Nov. 1-7.....	11	1
Illinois—Chicago.....Nov. 1-7.....	3	
Indiana—Indianapolis.....Oct. 25-31.....	2	
Louisiana—New Orleans.....Nov. 1-7.....	3	
2 Imported.		
Maine—Grand Isle.....Oct. 1-31.....	25	
Massachusetts—Haverhill.....Nov. 1-7.....	1	
Michigan—Detroit.....Nov. 1-7.....	2	
Missouri—St. Louis.....Oct. 25-31.....	1	
New Hampshire—Manchester.....Nov. 1-7.....	5	
New Jersey—Camden.....Nov. 1-7.....	1	
New York—New York.....Nov. 1-7.....	2	
Ohio—Cincinnati.....Oct. 31-Nov. 6.....	1	
Ohio—Cleveland.....Nov. 1-7.....	1	
Ohio—Dayton.....Nov. 1-7.....	2	
Ohio—Warren.....Nov. 1-7.....	1	
Ohio—Youngstown.....Nov. 1-7.....	1	
Pennsylvania—Erie.....Nov. 1-7.....	1	
Pennsylvania—Johnstown.....Nov. 1-7.....	1	
Pennsylvania—Philadelphia.....Nov. 1-7.....	42	4
Pennsylvania—Pittsburgh.....Nov. 1-7.....	30	14
Rhode Island—Providence.....Nov. 1-7.....	1	
Tennessee—Memphis.....Nov. 1-7.....	6	
Utah—Salt Lake City.....Oct. 25-31.....	1	
Wisconsin—Milwaukee.....Nov. 1-7.....	1	

Smallpox—Foreign.

Austria-Hungary—Prague.....Oct. 11-24.....	21	
Belgium—Antwerp.....Oct. 18-24.....	2	
Belgium—Brussels.....Oct. 18-24.....		1
Colombia—Barranquilla.....Oct. 19-25.....	1	
France—Marseilles.....Sept. 1-30.....	25	
France—Paris.....Oct. 18-24.....	8	
Great Britain—Bradford.....Oct. 10-24.....	4	
Great Britain—Glasgow.....Oct. 24-30.....	18	
Great Britain—Leeds.....Oct. 18-24.....	1	
Great Britain—Liverpool.....Oct. 18-24.....	4	
Great Britain—London.....Oct. 18-24.....	26	
Gt. Britain—Newcastle-on-Tyne.....Oct. 18-24.....	10	
Great Britain—Sheffield.....Oct. 18-24.....	1	
Italy—Catania.....Oct. 16-22.....	1	
Italy—Palermo.....Oct. 18-24.....	1	
Java—Batavia.....Sept. 27-Oct. 3.....	5	
Malta.....Oct. 11-17.....	5	
Mexico—Mexico.....Oct. 19-25.....	3	
Mexico—Tampico.....Oct. 25-31.....	1	
Russia—Moscow.....Oct. 11-17.....	1	
Russia—Odessa.....Oct. 11-17.....	1	
Russia—St. Petersburg.....Oct. 11-17.....	33	
Russia—Warsaw.....Oct. 4-10.....	1	
Turkey—Constantinople.....Oct. 12-25.....	4	
Turkey—Smyrna.....Oct. 12-18.....	16	
Venezuela—Tucuyo.....Oct. 16.....	Present.	

Smallpox—Insular.

Philippine Islands—Manila....Sept. 13-26.....	2	1
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Yellow Fever—United States.

Texas—Cannel.....Nov. 3-10.....	10	
Texas—Laredo.....Nov. 4-10.....	120	18
Texas—Minera.....Oct. 30-Nov. 6.....	10	
Texas—San Antonio.....Nov. 2-10.....	3	1
Texas—Dewitt County.....Nov. 4.....	1	

Yellow Fever—Foreign.

Costa Rica—Limon.....Oct. 23-29.....	2	2
Mexico—Cittas.....Oct. 4-10.....	6	3
Mexico—Cuidad Victoria.....Oct. 4-10.....	19	20
Mexico—Linares.....Oct. 4-10.....	376	34
Mexico—Merida.....Oct. 4-10.....	3	1
Mexico—Progreso.....Oct. 4-10.....	1	
Mexico—Tampico.....Oct. 4-30.....	7	1
Mexico—Tehuantepec.....Oct. 4-10.....	1	1
Mexico—Vera Cruz.....Oct. 25-31.....	43	13

Cholera—Insular.

Philippine Islands—Manila....Sept. 13-26.....	148	134
Philippine Islands—Provinces....Sept. 13-26.....	3,101	1,439

Cholera—Foreign.

China—Hongkong.....Sept. 20-26.....	1	1
Japan—Yokohama.....Oct. 4-10.....	1	1
Turkey—Syrta, Alexandretta....Oct. 11-17.....	4	2

Plague—United States.

California—San Francisco.....Oct. 20.....	1	1
California—San Francisco.....Oct. 23.....	2	2
California—San Francisco.....Oct. 29.....	1	1

Plague—Insular.

Philippine Islands—Manila....Sept. 23-26.....	2	2
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Plague—Foreign.

China—Hongkong.....Sept. 20-26.....	2	1
Formosa.....Sept. 24-30.....	1	2
Japan—Yokohama.....Oct. 4-10.....	1	1
Mauritius.....Oct. 2-8.....		54

Public Health and Marine Hospital Service:

Official List of the Changes of Stations and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the Seven Days ending November 12, 1903:

ACHENBACH, JOHN, Pharmacist. Granted leave of absence for seventeen days from November 20th.

ANDERSON, J. F., Passed Assistant Surgeon. To proceed to Detroit, Michigan, for special temporary duty.

GREENE, J. B., Passed Assistant Surgeon. Granted leave of absence for twenty days from November 15th.

MASON, W. C., Acting Assistant Surgeon. Granted leave of absence for five days from November 19th.

OWEN, HENRY, Acting Assistant Surgeon. Granted leave of absence for thirty days from November 8th.

PETTUS, W. J., Assistant Surgeon-General. Detailed as inspector of unserviceable property in the Hygienic Laboratory.

SALMON, T. W., Assistant Surgeon. To proceed to Philadelphia, Pennsylvania, and report to medical officer in command for duty.

TRASK, J. W., Assistant Surgeon. Granted leave of absence for four days from October 17, 1903, under paragraph 191 of the regulations.

Board Convened.

Board convened to meet at Chelsea, Mass., November 12, 1903, for physical examination of an officer of the Revenue Cutter Service. Detail for the board—Surgeon R. M. WOODWARD, chairman; Assistant Surgeon W. C. RUCKER, recorder.

Appointments.

THOMAS WILLIAM SALMON, of New York, commissioned (recess) as assistant surgeon.

GEORGE NEVES, of Oklahoma, appointed pharmacist of the third class. November 11, 1903.

Resignation.

Pharmacist FRANK SIEDENBURG resigned, to take effect October 4, 1903.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending November 14, 1903:

BANTA, WILLIAM P., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Sam Houston, Texas, and ordered to report at Leon Springs, Texas, for duty at rifle range.

DE LOFFRE, SAMUEL M., First Lieutenant and Assistant Surgeon. Left Fort Assiniboine, Montana, on recruiting duty.

EDIE, GUY L., Major and Surgeon. Relieved from duty at Columbus Barracks, Ohio, and will proceed to Manila, P. I.

GANDY, CHARLES M., Major and Surgeon. Leave of absence extended one month and fifteen days.

GODFREY, G. C. M., Captain and Assistant Surgeon. Granted seven days' leave of absence, from November 7, 1903.

GREENLEAF, H. S., First Lieutenant and Assistant Surgeon. Granted seven days' leave of absence, from November 7, 1903.

HENDERSON, A. B., First Lieutenant and Assistant Surgeon. Granted seven days' leave of absence, from November 1, 1903.

HOWARD, DEANE C., First Lieutenant and Assistant Surgeon. Granted ten days' leave of absence, from November 7, 1903.

JOHNSON, R. W., Major and Surgeon. Ordered to report at the Surgeon General's office.

MABEE, J. I., First Lieutenant and Assistant Surgeon. Reported at the Army Medical School, Washington, D. C.

MANLEY, CLARENCE J., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Caswell, North Carolina, and ordered to duty at Fort Brady, Michigan.

MARROW, CHARLES E., First Lieutenant and Assistant Surgeon. Ordered to report for duty at Fort Sheridan, Ill.

MATHEWS, GEORGE W., First Lieutenant and Assistant Surgeon. Ordered to report for duty at Fort Du Pont, Delaware.

MILLER, R. B., First Lieutenant and Assistant Surgeon. Ordered to report at the Army Medical School.

POLHEMUS, A. S. Major and Surgeon. Granted leave of absence for thirty days, with permission to apply for thirty days' extension.

RAFFERTY, OGDEN, Major and Surgeon. Reported for duty at Fort Monroe, Va.

RENO, WILLIAM W., First Lieutenant and Assistant Surgeon. Ordered to report for temporary duty at Fort Riley, Kansas.

REYNOLDS, F. P., First Lieutenant and Assistant Surgeon. Ordered to report for duty on the hospital corps, Fort Sam Houston, Texas.

ROBERTS, WILLIAM, First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Brady, Mich., and ordered to Fort Caswell, N. C., for duty.

SHAW, HERBERT G., First Lieutenant and Assistant Surgeon. Relieved from duty at Alcatraz Island, and ordered to Fort Miley, California, for duty.

STEDMAN, C. J., First Lieutenant and Assistant Surgeon. Ordered to report at the Army Medical School, Washington, D. C.

THORNBURGH, R. M., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Warren, Mass., and ordered to Bath, Maine, on recruiting duty.

VAN DUSEN, JAMES W., First Lieutenant and Assistant Surgeon. Assignment to Army Medical School, Washington, D. C., for course of instruction, is suspended until further orders.

VAN POOLE, G. MCD., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Riley, Kansas, and ordered to the Army Medical School, Washington, D. C., for a course of instruction.

WINTER, FRANCIS A., First Lieutenant and Assistant Surgeon. Ordered to Fort Sam Houston, Texas, for duty on the hospital corps.

WOODBURY, FRANK T., First Lieutenant and Assistant Surgeon. Ordered to Plattsburg Barracks, N. Y., for duty.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending November 14, 1903:

BIDDLE, C., Surgeon. Detached from the *Puritan* and ordered to the *Lancaster*.

BRISTER, J. M., Assistant Surgeon. Detached from the *El Cano* and ordered to the *Isla De Cuba*.

CARPENTER, D. N., Surgeon. Detached from the *Chicago* and ordered home to await orders.

CHAPMAN, R. B., Assistant Surgeon. Appointed assistant surgeon with the rank of lieutenant, junior grade, from October 28, 1903.

DIEHL, O., Surgeon. Detached from the *Oregon* and ordered to the *New Orleans*.

GUEST, M. S., Passed Assistant Surgeon. Detached from the *New Orleans* and ordered to the *Oregon*.

MAYERS, G. M., Assistant Surgeon. Detached from the *Vicksburg* and ordered to the *El Cano*.

WILSON, H. D., Passed Assistant Surgeon. Detached from the Naval Station, Olongapo, P. I., and ordered to the *Vicksburg*.

Births, Marriages, and Deaths.

Married.

BLAKE—O'BRYON.—In Washington, D. C., on Monday, November 9th, Dr. Charles French Blake and Miss Adeline Myers O'Bryon.

BOETTIGER—BAUKER.—In Plattsburgh, N. Y., on Wednesday, October 28th, Dr. Carl Boettiger and Miss Alice E. Bauker.

BOHANNAN—BEERS.—In Darien, Connecticut, on Thursday, November 12th, Dr. Richard L. Bohannon and Miss Ella Beers.

CATLIN—GRASTY.—In Baltimore, Maryland, on Tuesday, November 10th, Dr. Joseph Albert Catlin and Miss Mary Claiborne Grasty.

COOK—BAIN.—In Norfolk, Virginia, on Wednesday, November 11th, Dr. Frank Clarendon Cook and Miss Eugenia Murdaugh Bain.

GOULD—WORK.—In New York, N. Y., on Wednesday, October 28th, Dr. George C. Gould and Miss Florence St. Clair Work.

HENDERSON—BOTTS.—In Chillicothe, Missouri, on Wednesday, November 11th, Dr. James Paris Henderson and Miss Florence Botts.

HENDERSON—CAUTHERS.—In Brooklyn, N. Y., on Tuesday, November 10th, Dr. Richard Alvin Henderson and Miss Annie Louise Trevor Cauters.

HERZOG—COHN.—In San Francisco, California, on Wednesday, October 7th, Dr. George Kramer Herzog and Miss Rae Cohn.

INGLING—TRUEX.—In Freehold, New Jersey, on Wednesday, November 4th, Dr. Harry W. Ingling and Miss Anna G. Truex.

RUPPERT—MASON.—In Brooklyn, N. Y., on Wednesday, November 11th, Dr. Franz Caspar Ruppert and Miss Evelyn Ranlett Mason.

SMITH—CAGLIERI.—In San Francisco, California, on Thursday, November 5th, Dr. James F. Smith and Miss Adele Caglieri.

STARK—WEIL.—In New York, N. Y., on Thursday, November 12th, Dr. Henry S. Stark and Miss Sarah Weil.

STUART—BEALE.—In Washington, D. C., on Wednesday, November 4th, Dr. Garden Clarkson Stuart and Miss Florence Beale.

WYNKOOP—SCHENCK.—In New York, N. Y., on Saturday, November 14th, Dr. Gerardus Woodbury Wynkoop and Miss Carley M. Schenck.

Died.

AYERS.—In Troy, N. Y., on Tuesday, November 10th, Dr. Peter E. Ayers.

BUCK.—In Kingman, Kansas, on Saturday, November 7th, Dr. Willis E. Kingman.

CLAYTON.—In Detroit, Michigan, on Monday, November 2nd, Dr. James G. Clayton, in the sixty-seventh year of his age.

LAKE.—In Amsterdam, N. Y., on Tuesday, November 10th, Dr. Edgar C. Lake, in the forty-fourth year of his age.

MARSHALL.—In New York, N. Y., on Friday, November 13th, Dr. Charles Marshall, of Huntingdon, Province of Quebec, in the fifty-fifth year of his age.

VAN ARTSDALEN.—In Philadelphia, Pennsylvania, on Thursday, November 5th, Dr. Franklin Van Artsdalen, in the seventieth year of his age.

WATSON.—In Cincinnati, Ohio, on Monday, November 2nd, Dr. Harry Watson, in the seventy-third year of his age.

WYCKOFF.—In Buffalo, N. Y., on Saturday, November 7th, Dr. Cornelius C. Wyckoff, in the eighty-second year of his age.

New York Medical Journal

AND

Philadelphia Medical Journal.

CONSOLIDATED.

A Weekly Review of Medicine

VOL. LXXVIII, No. 22.

SATURDAY, NOVEMBER 28, 1903

WHOLE NO. 1304.

Original Communications

THE USE OF WEAK COCAINE SOLUTIONS IN OPERATIONS FOR THE REMOVAL OF CERVICAL TUMORS.

By FREDERIC GRIFFITH, M. D.,
NEW YORK,

SURGEON, BELLEVUE DISPENSARY; FELLOW OF THE NEW YORK ACADEMY OF MEDICINE; ASSISTANT SURGEON TO THE NEW YORK POLYCLINIC SCHOOL AND HOSPITAL; ASSISTANT SURGEON (G. U.) TO THE NEW YORK HOSPITAL (HOUSE OF RELIEF), ETC.

Cocaine will never usurp the place held by chloroform and ether as an anæsthetic in the hospital, for the reason that it divides the operator's attention. For the office patient and when away from the help accorded by the house staff, however, the perfection of procedure by this means must ever command attention. Bodine has shown conclusively that hernial operations are clearly within the scope of cocaine surgery. The dissection of the neck in cases of tumor formation, particularly those of tuberculous adenomata, would seem to be contraindicated from the very tediousness of the task. The following reports are the case histories of cervical tumor formations removed under the influence of cocaine anæsthesia obtained by $\frac{1}{4}$ per cent. to $\frac{1}{8}$ per cent. solutions of the drug in a warm, weak soda solution:

CASE I.—Madam H., aged fifty years, is a French boarding-house mistress. For seventeen years she has carried a painless growth at the root of her neck posteriorly. According to the woman's statement, it developed from a water blister, which followed a too rapid descent from a mountain top in her native country. By dissection with the aid of the weak cocaine solution, already mentioned, the tumor, adherent to the muscle and subcutaneous tissue and partially encapsulated, was painlessly removed. A pig-skin appearance, due to fibrous adherence, was manifest over the skin surface. Examination proved the growth to be a fibrolipoma weighing fourteen ounces. Healing was prompt by primary union, and at the end of two years and a half the scar is a white line and freely movable.

CASE II.—Mrs. R., aged forty-one years, a

housewife, presented a growth of twenty-three years' standing. This mass had developed in the scalp at the base of the skull, and was about the size of a hen's egg. Beside it was another mass about the size of a lima bean. The clinical diagnosis was made, and examination, after removal under the influence of a weak solution of cocaine, proved the growths to be sebaceous cysts. Healing occurred without infection.

CASE III.—M. B., German, aged twenty-three years, a baker by occupation, had a tumorous development upon the right side of his neck, filling up the space and bulging out from between the angle of the jaw and the ear. The glandular enlargement, for such it was, had developed from no assignable cause. The mass had reached its present dimensions during the course of seven months. Removal of the several agglutinated superficial glands, making up an irregular mass somewhat larger than a chicken egg, was accomplished after an hour and a half of careful dissection. The gland capsules, being bound down in all directions, rendered the normal anatomical landmarks of little value, and dissection was accomplished only with the greatest care. Painful manifestations after the initial incision were controlled at once by the injection of weak cocaine solutions. The wound was closed and drained from the lower end by means of a rubber tube. The next day the patient was found doing well, with a normal temperature. Two days later the wound was dressed, and the drainage tubes were removed. There was no pus, but a serous, fatty discharge was present. Healing from this time on continued uninterruptedly. Twenty-three days after operation the site of the wound in this patient was a healthy red scar, but, owing to either the irritation of the operation upon similarly infected glands or to a nidus left behind in the shape of a piece of partially dissected gland-tissue, the entire posterior chain of superficial glands had become enlarged. Their removal was likewise decided upon, and eighteen bean-sized glands, arranged in pairs, in a chain on a line parallel with the anterior border of the trapezius muscle and extending down almost to the clavicle, were removed. Weak cocaine solution was used in the first part of this latter operation, as had been done in the first, but the last of the dissection was carried out under ether anæsthesia, owing to the nervousness of the patient, which was partially due to too little exercise of patience upon the part of the operator. Healing occurred in the second operation by primary union, and the patient has had no return of symptoms after a period of eight-

een months. Examination of the glands removed at both operations proved them to have undergone tuberculous degeneration. The large mass first removed was found to have undergone liquefaction necrosis in the centre, and it was filled with cheesy masses in a watery, pus-like fluid.

CASE IV.—Mrs. E. B., aged forty-three years, the mother of adult children, has had, for a period of eighteen years, a hard lump in the right cervical region. This mass was deeply seated under the ear and somewhat anterior to this organ. The tumor began as a little pimple under the skin, it was painless, but the patient sought its removal from fear of probable future consequences. It was removed and, while requiring deep dissection, during the operation no pain was felt by the patient, who was under the influence of the weak cocaine solution. The tumor was found to be an enlarged, encapsulated gland, about the size of a pigeon's egg, thick-walled and undergoing softening in the middle. Healing occurred promptly in this case. The wound was drained with a horse-hair wisp for twenty-four hours through an orifice made at the lower end by allowing the last suture to remain loose. The wound was entirely healed by the end of the eighth day and, as the line of the scar took the course of a neck wrinkle, the result was most satisfactory. For a period of fourteen months there has been no sign of reappearance.

CASE V.—J. O'H., aged twenty-nine years, an assistant engineer by occupation. For seven or eight years this patient had noticed a small papillomatous growth situated just within the hair-line in the posterior cervical region. The mass was painless, but was gradually increasing in size, hence he sought its removal for cosmetic reasons. Dissection was accomplished painlessly, but the growth was found very adherent to the subcutaneous tissue at the root. Nourished by an artery in size out of all proportion to the growth, bleeding was free and could not be stopped by a hæmostat, owing to the insufficient length of the vessel. The application of the sutures, however, readily controlled its action. Healing occurred in a week without infection.

CASE VI.—J. K., an Irishman, aged twenty-four years, a pipe-wrapper in subway work. He presented for removal a tumor upon the right side of his neck, extending from below the ear to the border of the thyroid cartilage in front (Fig. 1). It was not painful, but the patient complained of its size and stiffness when turning his head to the right side. It was very hard to the touch and did not fluctuate. The patient dated its origin from a severe toothache in a right lower molar eleven months before. The patient used chewing tobacco, but had never smoked. Under a weak cocaine solution (skin-injection anæsthesia) an incision four inches long was made parallel to the surface line of the lower jaw and over the bulge of the growth. The further dissection demonstrated two distinct glands, a single large one adherent to the inner side of the deep cervical fascia, and a small bean-like gland external to the fascia, the sternocleidomastoid muscle being displaced backward. In removing the larger gland, to facilitate its handling near the end of the dissection, I

grasped it in the jaws of a volsella forceps; this procedure was followed by an evacuation of several ounces of a yellowish-green, soup-like fluid, leaving behind a thick-walled sac. Stuffing the sac with absorbent cotton, I was enabled to complete my dissection unhampered, which included



FIG. 1.—Dr. Griffiths's Case VI. Showing tumor.

the space before the great vessels, and which presented a beautiful demonstration of the carotids and their lower branches with the lingual and descendens noni nerves and their relationship. The space left after the removal of the glands was so large that, fearing too much oozing might take place, I stuffed it with gauze, leaving an orifice at the bottom for withdrawal. The packing was removed eighteen hours later, the patient having passed a good night, but he was unable to swallow solid food, owing to the bulk of gauze in his



FIG. 2.—Dr. Griffiths's Case VI. Taken on the fifth day after removal of the tumor.

throat. Its removal was followed by the escape of about a drachm of blood-stained, fatty fluid. A small twist of rubber-tissue was inserted as drain for possible future collection of fluid and the wound dressed with a pad of light, fluffe gauze. When redressed upon the third day, all oozing was found to have ceased, and the site c

the draining wound had changed to granulation tissue. A photograph taken upon the fifth day (Fig. 2) showed the wound to have closed entirely by primary union, save for a granulating area at the drainage orifice, which latter was drawn together by means of an adhesive strap over narrow, covering strips of rubber-tissue. By the end of the seventh day the wound had entirely healed; the dried, knotted ends of the sutures were picked off, and further dressing became unnecessary.

49 EAST SIXTY-FOURTH STREET.

THE EARLY OPERATIVE TREATMENT OF TUBERCULOUS OSTEITIS OF THE KNEE.*

By BERNARD BARTOW, M. D.,

BUFFALO, N. Y.

(Concluded from page 986.)

A brief summary of some of the more important results obtained in recovered cases might be conveniently mentioned in advance. The range of preserved movement in the knee varies between complete functional restoration, in one case, and limitation of movement at fifteen degrees of flexion in one case. Intermediate to these are four cases in which there is free flexion movement from sixty to ninety degrees from the straight position of the leg. In the patient with the least amount of motion,¹ the range is susceptible of further improvement by movement during anæsthesia. Extensive adhesions existing in this case at the time of the operation were then broken down, but recurred during the subsequent fixation of the joint. Patients whose progress has been watched after leaving the hospital have been reported well at distances of time, one, two, and three years after the operation. With two exceptions these patients remained in the hospital from two to six months after the operation—affording a suitable opportunity before leaving the institution to judge of the controlling effect of this plan of treatment.

CASE I.—Geo. J., male, three years and a half old; admitted to Children's Hospital January, 1898. No treatment previously to entering hospital. History of pain in right knee, and lameness of about nine months' duration. Contraction of flexor muscles, and malposture of forty-five degrees. Enlargement of lower end of femur and joint from periosteal and capsular infiltration. Moderate reaction synovitis. Inner condyle, tender to pressure on lateral aspect (Fig. 1).

Operation one week later: Trephined inner condyle, and removed tuberculous focus with curette; cavity mopped with 25 per cent. zinc chloride, and injected with carbolic acid and tinc-

ture of iodine, 10 per cent. in glycerin. Hamstring tendons divided to correct malposition; incisions sutured and dressed and limb secured in straight position by plaster of Paris splint (Fig. 2).

Rapid subsidence of acute symptoms in the ensuing four weeks. Plaster splint exchanged for Thomas's knee splint at end of two months. Six months after operation all signs of disease had disappeared in knee; free movement to sixty degrees of flexion. Was taken home wearing Thomas's splint, which was discarded three



FIG. 1. CASE I. FIG. 2.

FIG. 1.—Appearance of right knee at time of operation.

FIG. 2.—Immediate correction of the malposition by division of the hamstring tendons, and fixation by plaster of Paris splint.

months later. Patient reported well two years after operation.

CASE II.—F. K., male, aged five years. Admitted to Children's Hospital January 12, 1897. Tuberculous osteitis of left knee; duration, about one year. Knee flexed fifty degrees. Abundant periosteal and capsular infiltration, with roundness of end of femur and obliteration of normal contours of knee. Joint held rigidly by muscular contraction; painful to manipulation or jarring movement; frequent night cries; inner condyle prominent and tender on compression. Treatment previously to entering hospital had been by traction with weight for about three months, followed by fixation for several months with a plaster of Paris splint. Protection by crutches and high shoe for a time, and later by a long traction walking splint was employed intermittently.

Operation January 14th. Division of hamstring tendons; knee movements quite free when muscle restrictions were removed. Inner condyle trephined, and focus found near periphery and extending to articular plate.

* Read at the seventeenth annual meeting of the American Orthopaedic Association, Washington, D. C., May 12, 1903.

¹ In this patient (Case VI) the range of movements has since been increased to forty-five degrees flexion, by movement under an anæsthetic.

Locomotion with crutches and high shoe four weeks after operation. Plaster of Paris splint discontinued in August, 1897; protection by crutches and high shoe until January following. Movement to forty-five degrees flexion when protection was discarded, which increased to ninety degrees in the ensuing year, following use of the limb. Patient seen again in 1900, three years after operation. No recurrence of disease; function of

but treatment had been intermittent, and frequently abandoned. Joint not markedly tender, and no indications of reaction inflammation; absence of starting pains. Patient able to walk without much pain. Inner condyle distinctly tender on digital pressure.

Operation, July 12th. Open division of hamstring tendons to correct malposture. Focus easily found by trephining inner condyle. Its direc-



FIG. 3 (CASE III).



FIG. 4 (CASE IV).



FIG. 5 (CASE V).

FIG. 3 (CASE III).—Appearance of left knee at time of operation (end result photograph not obtained).

FIG. 4 (CASE IV).—Appearance of right knee at time of operation (end result photograph not obtained).

FIG. 5 (CASE V).—End result nine months after operation on right knee.

the joint nearly equal to that of other limb; growth of limb but little affected by previous disease; no lameness apparent during locomotion.

CASE III.—P. M., male, eight years old. Entered Children's Hospital July, 1901, with tuberculous osteitis of left knee. Pronounced periosteal infiltration and roundness of end of femur, and undue prominence of inner condyle. Contraction at knee to forty-five degrees flexion (Fig. 3). Duration of disease about two years. Had been treated at times by fixation, extension, etc.,

tion was transverse and irregular, not lying close to the articular plate. Hard walls of limiting tissue felt with curette in all directions. The tissue removed was largely *débris*—only a small amount resembling recent tuberculous tissue. This was a focus evidently of long standing, where there had been a good effort at encapsulation.

Locomotion permitted with crutches and high shoe in two weeks after operation. Splint removed in two months. Movement to sixty degrees of flexion without discomfort. Signs of dis-

ease in end of femur had quite disappeared by this time, and patient returned home, with instructions to continue protection for a time longer. He was heard from a year later, when there had been no recurrence of knee symptoms.

CASE IV.—I. W., female, eight years old. Admitted to Children's Hospital April 15, 1901, with tuberculous osteitis of right knee. She had been a patient in the hospital four years previous, and was treated for the primary attack of epiphyseitis—the present condition being a recurrence of activity in the old encapsulated focus. Treatment of the earlier disturbance had been hamstring di-

flex muscular contraction was acute, but only a slight amount of malposture present—about fifteen degrees of flexion (Fig. 4).

April 18, 1901, I trephined the inner condyle, and found old encapsulated focus with dense walls; the material removed with curette resembled *osteoporosis*, with some *débris*, and recent tissue. Contraction of the flexors disappeared during anæsthesia, and division of the tendons was omitted.

After operation joint fixed in straight position by plaster of Paris splint; locomotion permitted in two weeks. Patient left hospital six months

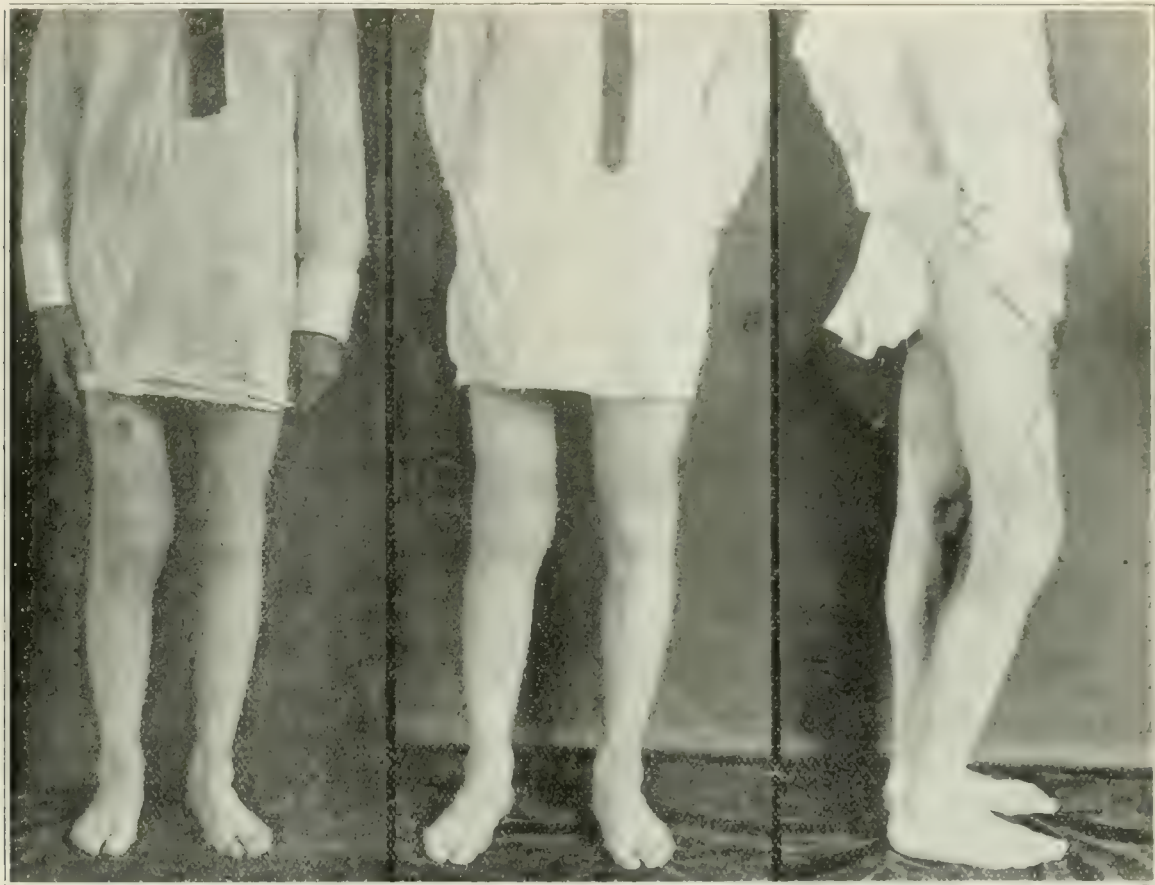


FIG. 6.

CASE VI.—FIG. 6.—Appearance of right knee at time of operation.

CASE VI.

FIG. 7.

FIG. 7.—The same, eleven months after operation.

FIG. 8.

FIG. 8.—The same, showing amount of flexion movement eleven months after operation. (This has since been increased to 45 degrees of flexion, by movement during anæsthesia.)

vision and fixation of knee in a corrected position with protection by crutches and high shoe. She left the hospital at the end of six months, apparently well, and was reported so at intervals for two years. Patient returned to the hospital, April 15, 1901, nearly four years later. About two months previous, she had fallen on the stairs, and struck on the inner condyle quite hard; following which there was pain, swelling and stiffness of the knee, and tenderness referable to the condyle itself. Condyle was distinctly tender on pressure, much enlarged, and there was quite extensive infiltration of periosteum. Signs of moderate reaction inflammation were present in the joint. Re-

later—her condition indicating complete removal and arrest of the disease. Movement of joint was free to sixty degrees of flexion. Trace of this patient has been temporarily lost, since leaving the hospital.

CASE V.—H. H., male, aged six years. Injured the right knee in July, 1900—limb being caught in a flexed position in a churn. Immediate disturbance soon subsided, but lameness, swelling and pain developed after about six weeks. Had attacks of acute muscle spasm following any unusual effort; these would subside following rest in bed for a week or two. There were three or four recurrences of this character at intervals,

during as many months. Lameness intermittent and varying in severity.

Examination, March, 1902, showed moderate enlargement of internal condyle, with a tender point on inner aspect. Moderate infiltration of periosteal tissue, and reaction inflammation in joint. There had been reaction swelling of the joint noticeably present following each of the attacks of painful muscle spasm referred to. Moderate contraction of hamstring tendons; malposture about fifteen degrees of flexion.

Operation April 2, 1902. Trephined inner condyle, and removed focus of moderate size. Disease area inclosed by firm limiting tissue. The flexor contraction was released during anæsthesia,

CASE VI.—H. P., male, aged nineteen years. A year and a half previous to coming under my care, he had hurt right knee by an extreme flexion movement. Following this, there was lameness, soon becoming continuous, and accompanied by swelling. Muscles gradually contracted—holding the limb immovable at twenty degrees of flexion. The end of the femur appeared full and rounded (Fig. 6) from infiltration, and the inner condyle was prominent and tender on digital pressure. Reaction inflammation in joint and capsular tissues gave entire knee an enlarged appearance. Limb painful during locomotion, and movements resisted by reflex muscle spasm. Diganosis of



CASE VII.—FIG. 10.



CASE VII.—FIG. 11.

FIGS. 10, 11.—Radiograms (lateral and anterior exposures) showing tuberculous focus (+) in inner condyle, right femur.

and, therefore, no division of hamstring tendons was made. Joint secured in plaster splint, and crutch locomotion with high shoe was permitted in two weeks.

Fixation maintained by plaster of Paris splint for about three months. Movement of joint then complete and painless. Protection with crutches and high shoe continued two months longer. There were no recurring irritation phenomena after operation. Examination seven months after operation showed no indications of disease in the condyle or impairment of function of the knee joint. Have heard from patient several times since, and there has been no return of knee symptoms (Fig. 5).

focus in inner condyle, and probably near articular plate—judging by the amount of reaction disturbance in the joint.

Trephined inner condyle, June 6, 1902, finding diseased area with ease. This was curetted, and bone cavity treated as in previous cases. Hamstring tendons divided to relieve contracture. Extensive adhesions were found in joint when moved after division of the tendons and freely broken down. Incisions sutured and dressed, and limb fixed in plaster of Paris splint. Locomotion with crutches and high shoe permitted in two weeks. Gradual subsidence of inflammatory excitement, infiltration and swelling. Limb again moved under anæsthetic three

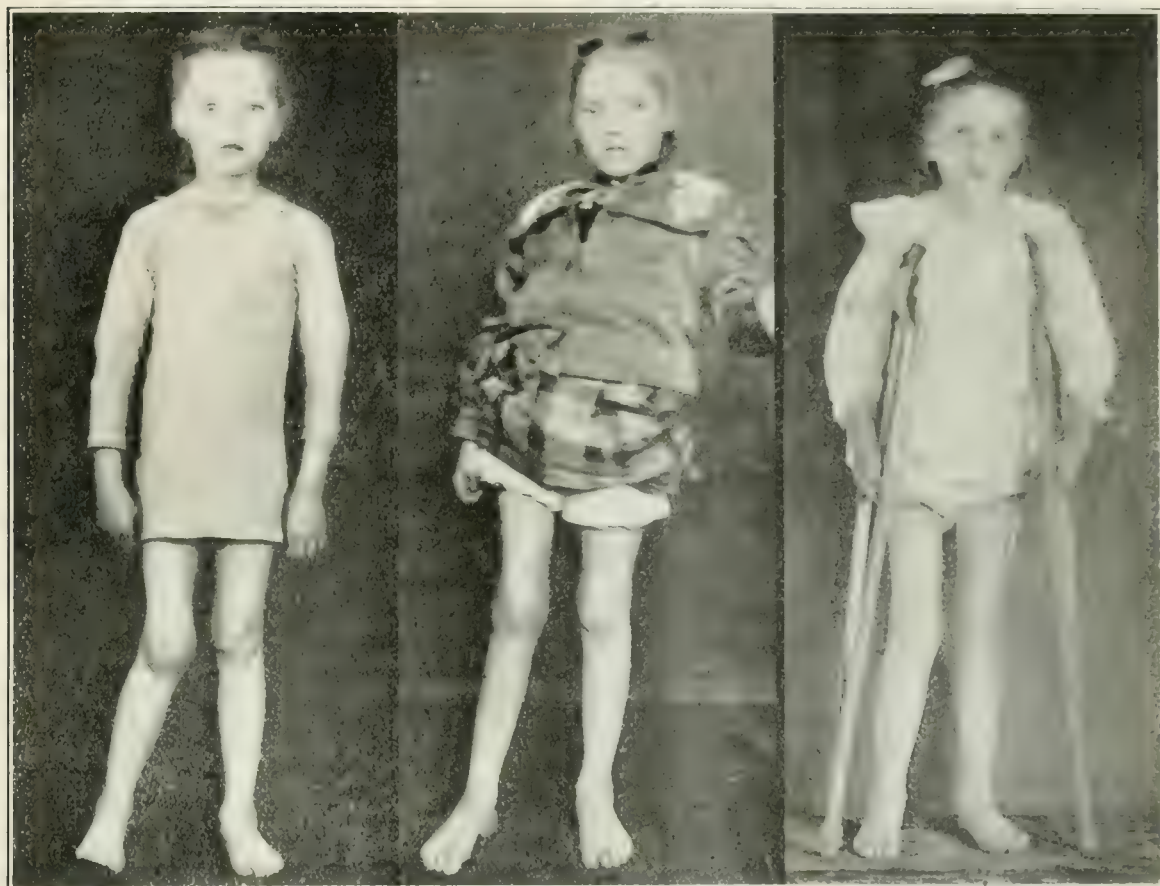
months after operation, breaking down recurring adhesions. Splint discarded in five months, and protection discontinued three months later. Since that time, patient has borne weight on limb with aid of cane only. Movement of joint to fifteen degrees of flexion, with expectation of further increase after another forcible movement under an anæsthetic.² Arrest of the tuberculous process indicated by the absence of all irritation phenomena during the continued and gradually increasing use of limb. Appearance of knee May 8, 1903, shown in Figs. 7 and 8.

CASE VII.—E. M., girl, aged six years; was seen in consultation with Dr. Harvey R. Gaylord,

limb at about twenty degrees of flexion. Attempted movement beyond limits of restriction excited pain and muscle spasm.

Diagnosis of tuberculous focus in inner condyle, not yet involving joint, but in near relation to it.

Radiographic examination (Figs. 10-11) confirmed diagnosis of focus occupying large area in inner condyle. The articular surfaces were free from disease. At my suggestion, the treatment adopted was the same as in the foregoing cases. The record of this case has been kindly loaned to me by Dr. Gaylord, with permission to use in this connection.



CASE VII.

FIG. 9.

FIG. 12.

FIG. 13.

CASE VII.—FIG. 9.—Appearance of right knee at time of operation. Disappearance of much of the infiltration of the knee. Fixation and protection of the joint continued. FIG. 12.—The same knee seventeen weeks after operation. Infiltration very much diminished. Free flexion movement to 50 degrees. Fixation splint discontinued, but still protected by high shoe and

FIG. 13.—The same knee seventeen weeks after operation. Infiltration very much diminished. Free flexion movement to 50 degrees. Fixation splint discontinued, but still protected by high shoe and crutches. Patient still under observation.

March 6, 1903. History of lameness in knee, and enlargement of end of femur, extending over one year and a half. The latter part of that period, patient had been in the hands of a notorious quack, and received no care whatever. At time of examination, March 6, 1903, there were extensive periosteal and capsular infiltrations, roundness of end of femur and knee joint, and marked enlargement of inner condyle—the latter being tender on pressure (Fig. 9). Limitation of movement maintained by muscle contracture, holding

Operation by Dr. Gaylord, March 6, 1903; trephined inner condyle and removed diseased tissue with curette. Applications of zinc chloride, etc., as in cases related. Division of hamstring tendons, and fixation of limb with plaster of Paris splint. Locomotion permitted with crutches and high shoe in two weeks. Rapid improvement in appearance of knee observed on removal of splint and change of dressings, three weeks later; infiltration, swelling, pain, etc., had much decreased. Passive movement of joint May 7th, when splint was again changed showed free motion in joint

² See footnote 1, page 1023.

to twenty-five degrees flexion. Fixation and protection continued. Appearance of knee two months after operation shown in Fig. 12.*

CASE VIII.—S. D., male, aged five years. Admitted to Children's Hospital, February 20, 1903. Duration of lameness and pain about one year and a half. For two months previous to entering hospital, knee had been too lame and painful to walk—patient confined to bed during that time. Condition on entering hospital: Knee flexed forty-five degrees, and fixed by muscular contracture; enlargement of inner condyle; extensive periosteal and capsular infiltration, and reaction effusion in joint; pain from digital pressure on inner condyle

crutch locomotion permitted in three weeks, with plaster splint fixation. Rapid decrease of irritation phenomena. Appearance of knee shown in Fig. 15 eight weeks after operation. Fixation and protection continued. Patient still under treatment.

THE TREATMENT AND MANAGEMENT OF POSTOPERATIVE TUBERCULOUS PATIENTS AND A PLEA FOR THE ESTABLISHMENT FOR SEASIDE SANATORIA AND CONVALESCENT HOMES.*

By S. A. KNOFF, M. D.,

NEW YORK.

Mr. Chairman, and Fellows of the Section on Surgery of the New York Academy of Medicine:

My first duty is to express to you, the distinguished chairman, and to you, fellows of the Surgical Section of the Academy, my deep appreciation of the privilege to appear before you. It is not very often that an ordinary physician who devotes all his time to the study, prevention, and treatment of a purely internal disease, is called upon to read a paper before the élite of the surgical profession of our metropolis.

The first inspiration to bring before the profession my ideas on the treatment and management of postoperative tuberculous patients I received from Dr. Daniel H. Craig, the distinguished editor of the *Annals of Gynecology and Pædiatry*. After the completion of the manuscript the thought came to me that the value of the paper would be materially enhanced could I be permitted to read it before an assembly of surgeons who, in the discussion and criticism of the paper, would bring out many practical and important points. I appealed to your honored chairman, Professor Robert T. Morris, and with his characteristic courtesy he has allowed me to appear before you. He took a deep interest in the subject and arranged for the reading of the paper at a date when he was certain to have a large audience and sufficient time to have the paper thoroughly discussed. For this I am profoundly grateful, not only on my own account, but also for those who may honor me by reading the article and its subsequent discussion. I know many of you will present facts which only personal experience can teach. All that I may hope for is that a somewhat extensive experience with the care and management of pulmonary cases will be helpful in giving a few hints for the post-

* Read before the Section on Surgery of the New York Academy of Medicine, November 4, 1903.



CASE VIII.

FIG. 14.

FIG. 15.

FIG. 14 (CASE VIII).—Appearance of left knee at time of operation.

FIG. 15.—Same, eight weeks after operation, showing correction of malposture and modification of infiltration. Fixation by plaster of Paris splint and protection by crutches and high shoe continued. Patient still under observation.

(Fig. 14). No radiographic examination was made.

Operation, February 24, 1903; trephined inner condyle, and removed tuberculous tissue from large area extending close to articular plate; the curetted region in the condyle had hard limiting walls and very irregular form. Open division of hamstring tendons. Gastrocnemius remained contracted after releasing hamstrings—leg retaining about ten degrees flexion. Fixation by plaster of Paris splint. Primary union in two weeks, when dressings were changed. High shoe and

* Patient again seen July 2, 1903, splint having been removed two weeks previously. Protection by means of crutches and high shoe continued. Flexion at knee free to fifty degrees. (Fig. 13.)

operative management and treatment of surgical tuberculous patients.

It would seem to me that any case, whether operated on for a tuberculous ovary or its anexa, for a tuberculous kidney or testicle, tuberculous arthritis, or bone affections, or for a simple tuberculous peritonitis, would require an individual after treatment in the same sense that it is necessary to individualize the treatment of a diseased lung or larynx in different persons.

To begin, then, let us see what we can do in a general way for the man, woman, or child, operated on for a tuberculous lesion, from the moment of leaving the operating table. If the patient has been operated on in a hospital, he should be placed, if at all practicable, in a separate room, and here, as well as in private practice, the brightest, best ventilated, and sunniest room should be reserved for him. The proximity of a veranda on to which the patient's bed can be rolled is of great advantage. In modern well equipped hospitals such verandas, connecting with the bedrooms of the patients, usually exist, and in country homes an extension connecting with the bedroom can often be built with little inconvenience and small cost (Fig. 1). In the larger cities, of course,

The window should be constantly open, but if the bed is so placed that the draught strikes the patient and for lack of room its position cannot be changed, a screen should be placed in front of the window. While I repeat that draughts should be avoided as far as possible, this precaution must not be carried to an extreme, so as to make the patient afraid of a breath of fresh air.

The practice in vogue in some of our American and European hospitals, of placing the individual immediately after the operation in a well equipped tent, is most commendable, and particularly for patients operated on for tuberculous lesions. There are but few months in the year when, on account of inclement weather, the patient operated on should not be placed in the tent. I have known of pulmonary patients doing exceedingly well in such tents during quite cold weather, not only in the mountains, but also in places at sea level and in the vicinity of New York. The tent was, of course, provided with a stove in which the nurse started a fire in the morning, so that the patient could dress in a com-



FIG. 1.—Permanent arrangement for open air treatment in a country home.



FIG. 2.—Professor Fisher's tent.

this cannot always be done, but in a private house we may succeed in placing the patient in the room most exposed to the sun and where the greatest possible comfort can be secured for him. For the winter a room with an open fireplace is always to be preferred.

The temperature of the room should never be higher than 65° to 68° F. in winter, and, if the patient has completely recovered from the nervous shock of the operation, he may, if well covered, stand a much lower temperature with comfort.

fortably warm atmosphere, and when it was very cold the fire was kept up day and night.

You have all heard of the admirable work which our present commissioner of charities, the Honorable Homer Folks, has done on Blackwell's Island, in the line of tent treatment of the consumptive poor of this city. Equally good results have been obtained by open air treatment in tents for the tuberculous insane, through the devotion and energy of Dr. McDonald, of the Manhattan State Hospital.

There are numerous excellent tents in the market, such as the Mansfield, the Gardiner, and others. One of the best tents, permitting constant and absolute ventilation, without draught, and admitting the greatest amount of air, sunshine, and light, is the one recently constructed by Professor Irving Fisher, of Yale. I show you here a photograph which illustrates its construction. Its great advantage consists in that it can be closed and opened from all sides (Fig. 2).

There has been some objection made to tent life on account of the glare on sunny days and of the inability of patients to sleep after sunrise. Some have suggested blue shades, but it would seem to me a much simpler way to overcome this difficulty, to tell the patient to put over his eyes a small bandage of dark, non-heating material.

Some of these little cares may seem trifling and unimportant, yet it is the ensemble of all these little cares and attentions bestowed upon the tuberculous individual which constitutes the great treatment.

In the private home the carpet, heavy curtains, and superfluous furniture should be removed, without, however, leaving the patient's room cheerless. Small rugs and curtains that can be washed may be retained. There should never be any dusting in the room of the patient; furniture and floor should be wiped off with a moist rag. The dressing removed from the tuberculous patient should, of course, be burned at once. Another precaution to be remembered, when the patient has a pulmonary involvement and is treated at home, is to handle the personal and bed linen as little as possible in their dry state after removal from bed or body. The bed should, of course, be always a single iron bed on rollers. In certain surgical cases more complicated arrangements with lifting apparatus may be necessary. Whenever possible, however, and when the recovery of the tuberculous patient is presumably slow, and a much prolonged stay in bed is anticipated, a second bed should be at the disposal of the patient. There is nothing more refreshing and restful to the chronic tuberculous patient obliged to remain in bed for days, weeks, and sometimes months, than a change of bed every morning and night. With two beds placed side by side, the change from one to the other is easily effected, even with helpless patients; besides this, bedsores will be less frequent through such practice. Every trained nurse knows how to prevent and treat threatening bedsores, and I will only suggest here that in my experience water cushions have proved superior to air cushions.

As soon as the condition of the wound from the operation permits, the afebrile patient should

be allowed to leave the bed and rest during the greater part of the day on a reclining chair. I illustrate here such a reclining chair with the patient placed upon it (Fig. 3). It is neces-

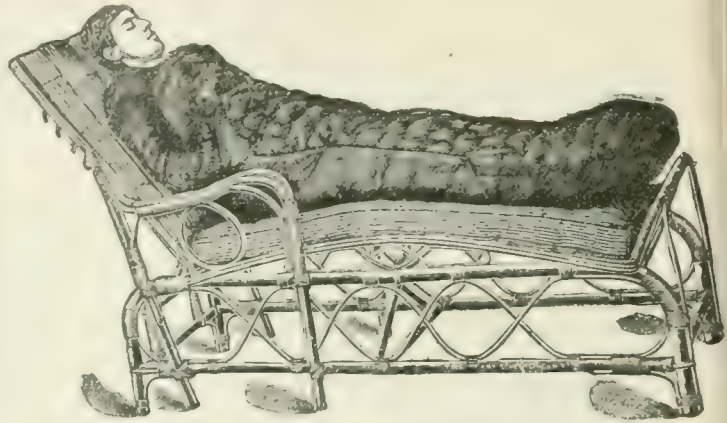


FIG. 3.—Sanatorium chair for the rest-cure in the open air.

sary that the chair be constructed in such a way as to assure the patient the greatest possible comfort and complete relaxation of his whole muscular system. As convalescence progresses and the patient begins to walk I should like to place him in what I call a half-tent for the rest cure in the open air. The accompanying pictures (Figs.

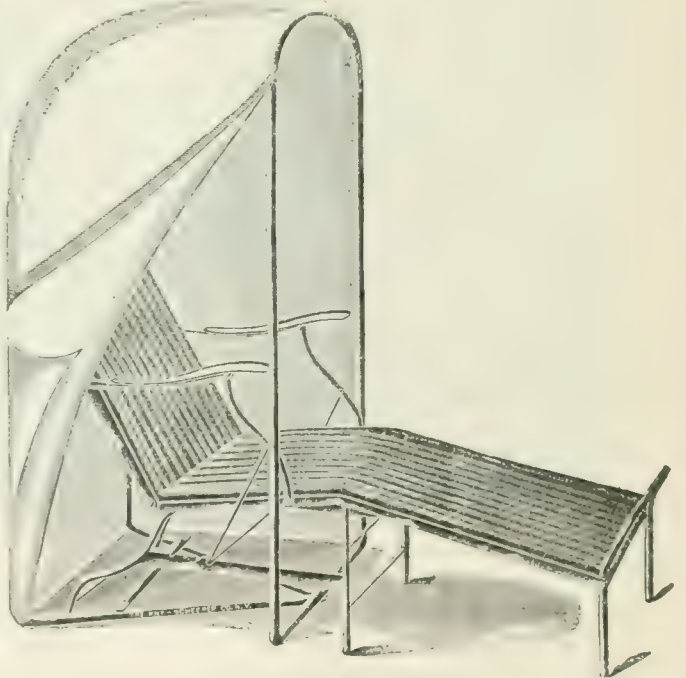


FIG. 4.—Dr. Knoff's half-tent

4 and 5) will illustrate just what I mean. This half-tent is composed of a steel frame which can be folded together when not in use. Over this frame tightly woven duck is stretched, so as completely to protect the patient against wind and sun. In this half-tent the reclining chair is placed in such a manner that the floor bracing, attached to the

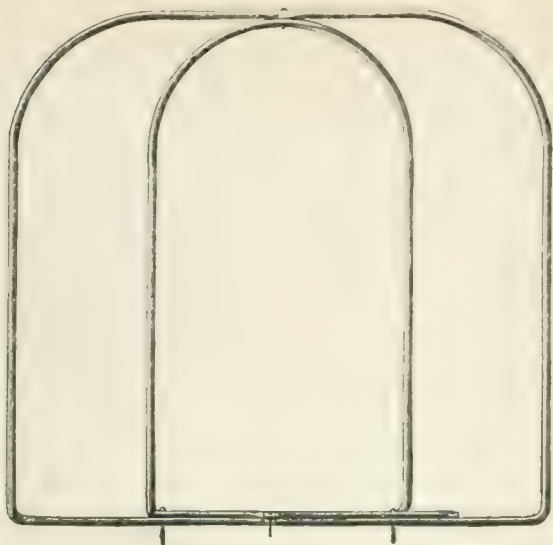


FIG. 5.—Steel frame for the half-tent folded together.

frame, is held down, and thus there is no danger of its being overturned, even if there is strong wind. This protection can also be procured at less expense by nailing together a few boards imitating the three walls and ceiling of a wicker basket chair or the half-tent. The half-tent arrangement is easily moved and can be placed in the yard, garden, or nearby woods. The patient must be protected against cold winds, and, to avoid headache and dizziness, he should be warned not to expose his head to the direct rays of the sun. His whole body may be exposed to the sun, but his head should remain in the shade.

The rest cure on the reclining chair in the open air, on veranda, roof, or garden lawn, first inaugurated by Dettweiler under the name of "Liegekur" for pulmonary tuberculosis, is, I think, of equal importance in all other forms of tuberculosis. In winter this prolonged stay in the open air is possible at quite low temperatures, providing the precaution is taken to wrap the patient up in blankets or furs and to place a hot water bag at his feet.

In the city, the half-tent, whether placed in the yard, garden, or on the flat roof, serves to protect the patient not only from wind and sun, but also from the gaze of his neighbors. It goes without saying that any vicinity where there is much dust, traffic or impure air, is ill-suited for the convalescence of a patient operated on for a tuberculous lesion, and I should consider close association with patients suffering from pulmonary or laryngeal tuberculosis absolutely dangerous. Right here, I wish to say that to my mind the most essential thing of all in the postoperative treatment is to prevent the patient from developing a pulmonary tuberculosis, or if such is already present, to arrest it by all hygienic, dietetic, and

medicinal means at our command. It is for this reason that I spoke first of placing the patient in the best possible hygienic environments and of commencing aerotherapy the very first hour after the operation.

If deep breathing or graduated respiratory exercises can be inaugurated without causing local pain, a general discomfort, or disturbing the wound or the dressing, they should be resorted to at the earliest possible moment. The rules to be observed concerning these exercises are as follows: They should never be taken when the patient is tired and never to the extent of his becoming tired; never after a hearty meal, or in an overheated room, or a dusty or otherwise vitiated atmosphere. The purpose of the exercises is above all to restore the faulty respiratory function, to facilitate hæmostasis, and indirectly to facilitate expectoration and diminish cough if such is present. The increased supply of oxygen is, of course, an important help in the metabolism and rarely fails to improve the patient's general condition.

Another important reason why I favor deep breathing as soon as possible after a capital operation, is to prevent a hypostasis of the lungs, a condition so often brought about by a much prolonged recumbent position. Quiet deep breathing in the recumbent position can often be facilitated by placing a small pillow or large Turkish towel folded under the small of the back. One should begin by teaching the patient to take a few deep breaths every half hour, and even by changing his position from the back to the left or right side, providing, of course, the wound is not deranged thereby.

The majority of patients will probably not remain under the care of the surgeon after they have approached convalescence to a stage where more vigorous breathing exercises for prevention or cure of pulmonary tuberculosis can be inaugurated. I wish, however, to state frankly that to my mind well-graded respiratory exercises, regularly and carefully carried out, will not only often prevent a development of pulmonary tuberculosis, but also tend to improve a general tuberculous diathesis, and may even prevent a recurrence of a tuberculous lesion in other regions of the body, besides lung and throat.

Again, you may occasionally desire to watch and care for a convalescing patient in whom you are particularly interested, until all trace of the infirmity from which your surgical skill has relieved him, has entirely disappeared. In such an instance you may even be willing to teach this convalescent individual how to breathe properly, how to make the best possible use of fresh air, and thus assure yourself that there will remain

little likelihood of his ever becoming tuberculous again.

The four or six breathing exercises which I teach as a means of prevention and cure of tuberculosis, I have described in my text book on tuberculosis,¹ and also in my popular essay.² I have also occasionally demonstrated them before audiences of physicians; never, however, have I had the honor of showing them before an assembly of surgeons. So, with your kind permission, I will rapidly go through them before you. Before doing so, let me call your attention to the necessity in many cases of first developing the patient's chest by carefully massaging the thoracic muscles, which are so often in a well nigh atrophied condition in tuberculously diseased and predisposed individuals.

Presuming that the upper air passages are in

respiratory act is followed immediately by a second forced expiratory effort. This is for the purpose of expelling as much of the supplemental air as possible and may be effectually aided by supinating the arms and pressing the thorax with them. You have thus created a partial vacuum, and the inhalation following this forced expiratory effort carries in the largest amount of pure air which the individual can possibly inhale by a single breath.

Considering that the amount of tidal air—that is to say, the volume which is inspired and expired in quiet respiration—is only 500 c. c.; the complemental air—the volume which can be inspired after an ordinary respiration—1,500 c. c.; while the supplemental, or reserve air—the amount which can be forcibly expelled after an ordinary respiration—amounts to 1,240 to 1,800

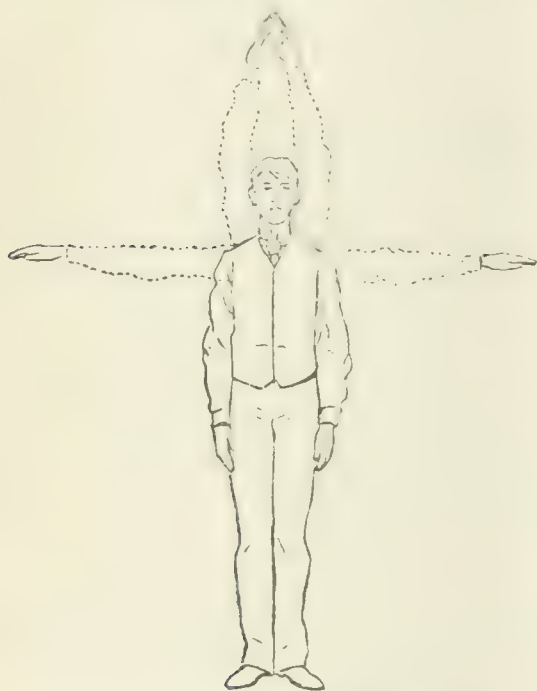


FIG. 6.—First and second breathing exercises.

a normal condition, the patient is taught to stand properly—that is to say, straight, chest out, and head erect—and to breathe always through the nose. He takes a deep inspiration slowly, beginning with the abdominal muscles, and then expanding the chest to its fullest capacity. During this inspiration he raises his arms from his sides to a horizontal position (Fig. 6). He holds the breath for from three to five seconds, and then lowers the arms during the act of expiration, which should be somewhat more rapid. This

¹ *Primary Tuberculosis: Its Modern Prophylaxis and the Treatment in Special Institutions and at Home*. P. Blakiston's Sons & Co., Philadelphia.

² *Tuberculosis as a Disease of the Masses, and How to Combat It*. M. Firestack, 110 West Ninety-sixth street, publisher.



FIG. 7.—Third breathing exercise.

c. c., one can readily see the value of respiratory exercises, and the utility of this second expiratory effort.

The second exercise is like the first, except that the upward movement of the arms is continued until the hands meet over the head.

In the third exercise (Fig. 7), the patient stretches his arms out, as in the position of swimming, the dorsal surfaces of the hands touching each other. During the inspiration the arms are moved outward and finally meet behind the back. They are brought forward again during the inspiration. This exercise can be greatly facilitated and made more effective by the patient ris-

ing on his toes during the act of inspiration, and descending during the act of expiration.

To individuals who are in the habit of stooping I teach an additional exercise, as follows (Fig. 8): The patient makes his best effort to stand

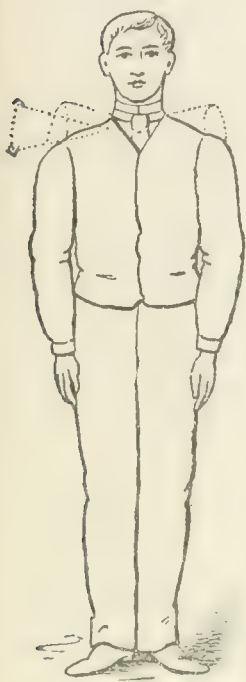


FIG. 8.—Breathing exercise with rolling of shoulders.



FIG. 9.—Exercise for children in the habit of stooping.

straight; he places his hands on his hips with the thumbs toward the front and then bends slowly backward as far as he can during the act of inspiration. He remains in the position a few seconds while holding the breath, and rises again, somewhat more rapid, during the expiration.

When the patient is out walking, riding, or sitting out of doors or in front of the open window, it will, of course, not always be convenient or possible to do these exercises with the movement of the arms. The patient should, under such conditions, content himself with raising his shoulders and making a rotary movement backwards during the act of inspiration, holding the breath for a moment and then exhaling during a rotary movement forwards, assuming again the normal position (Fig. 9). The secondary expiratory effort can follow this exercise also without attracting any attention.

One exercise should be taught at a time, and only after it has been thoroughly mastered should the physician proceed to teach the next one. I have described them in the order of their difficulty. The first, a simple raising of the arms to the horizontal line during the act of inspiration, requires relatively little effort. The second one,

in which the arms describe a circle by being raised outstretched until they meet above the head, requires a more prolonged inspiration, and necessarily an increased muscular effort. The third, the swimming exercise, in which the hands should meet behind the back, is the most difficult. The necessary interval of time between learning the successive exercises will depend upon the aptitude, the expansive power, and the general condition of the patient. Some patients can be taught all these exercises within nine or ten days, while with others, weeks often must intervene before the next exercise can be commenced.

In this age of physical therapeutics the value of sunlight is appreciated in surgical and medical practice alike. Solar therapy can best be carried out by exposing the patient's body as much as possible to the direct rays of the sun, keeping, of course, the head in the shade. Headache or a feeling of discomfort is a signal to stop the sun baths. Patients who are but slightly feverish may be allowed to try solar therapy, but when experience shows that an elevation of temperature follows these direct exposures to the rays of the sun, they must be discontinued. When exposure of the body to the direct rays of the sun is not possible, white or light colored raiment should be worn to permit the penetration of the actinic rays.

Hydrotherapy must be individualized for every tuberculous case. For the majority a gentle sponging with tepid or cold water may be permissible and will produce the desired antipyretic or tonic effect. A chilly sensation after the sponging shows a lack of reaction and should be a warning and guide regarding the temperature of the water to be used and the duration of the application. A good way to get the skin and nervous system accustomed to the use of cold water for continued use is to begin with a friction of pure alcohol for a few days, then to take half alcohol and water for the same number of days, and finally to resort to the use of the cold water. During the convalescent stage, when the wound is completely healed, a general good warm bath of moderate duration (about ten minutes once or twice a week), followed by cold sponging or douches, will help to keep the action of the skin in good condition. This is an important item in modern tuberculotheapeutics.

Rest, absolute bodily and mental rest, in pure, fresh air must be considered an important part in the treatment of feverish tuberculous patients. A temperature of 100° F. or more is an indication for rest in bed; from a fraction above normal to a little less than 100° rest on the reclining chair.

The dietetic treatment of the patient after a surgical operation must necessarily vary according to the nature of the operation to which the patient has been submitted. The diet for instance for the woman operated on for tuberculous peritonitis must for the first few days differ materially from that given to a child operated on for a tuberculous knee joint. I shall therefore refrain from specializing, and simply state what I would venture to give to all patients operated on for tuberculous lesions after their general condition no longer demands any particular care of their digestive organs. There should not be such a thing as an ironclad dietary list for any tuberculous patient with a good digestion, except, of course, in case of intestinal tuberculosis. We must study every tuberculous patient to find his idiosyncrasies, not only in regard to medicine, but also in regard to diet, for in the proper feeding of the tuberculous patient lies the keynote of success.

Permit me to give here the fundamental rules for diet which I give to all my patients: Live on a mixed diet—that is to say, meat, fish, vegetables (especially spinach, lentils, and cauliflower), fresh and cooked fruit, plenty of fresh milk, fresh eggs; all sorts of easily digested fats (not too much pork); butter is especially to be recommended. Thick, nourishing soups should be taken with the principal meals. Raw, chopped, or better yet, scraped, beef is an excellent food for tuberculous invalids, and can be taken in a variety of ways. Whole-wheat bread, being more nourishing than white bread, is to be preferred. Eat slowly, chew your food well, take the milk in small swallows; take but little liquid during and shortly after meals. Never take any alcoholic beverages (wine, beer, or liquor) without the special consent and the direction of the physician. Too much sweets (sugar, pies, pastry, etc.) should also be avoided, as well as all kinds of fried food. Take plenty of salt with all food; between meals plenty of good, pure water. If experience teaches you that any particular kind of food disagrees with you report it; also report any intercurrent trouble whatever it may be, such as indigestion, diarrhoea, constipation, increased cough, pain, etc. Keep your teeth in good condition by using the toothpick freely and brushing the teeth after each meal.

Zomotherapy, or in other words, the administration of raw beef or its juice, as stated in my general diet list, you will find of value in all types of tuberculosis, in adults and children. The tapeworm which may occasionally make its appearance should not be a hindrance in the employment of this valuable dietetic agent. After a capital

operation the administration of the meat juice instead of the meat is often to be preferred, particularly when there is a dyspeptic tendency or a repugnance to all solids. It can then also be administered in the form of jellies and ices. If the solid beef can be taken, but the patient prefers the meat slightly browned, his wish should be regarded, for I do not think that the nutritive value is thereby much impaired.

If, after a prolonged zomotherapy, the patient feels a dislike for raw beef, the administration should cease, but its use should be renewed after some time. Dr. Lawrason Brown, the Resident Physician of the Adirondack Cottage Sanatorium, recently reported his quite extensive experiments on the value of raw meat in tuberculosis,³ and came to the conclusion that much meat with a judicious admixture of carbohydrates, fats, etc., was essential to the treatment of tuberculosis, and that rare meat was better than meat well cooked. Another interesting conclusion which he arrived at, and which is well worth remembering, is the following: "The juice from raw meat seems slightly, if at all, more beneficial than the juice from meat slightly browned. The disadvantages of preparing and preserving raw meat-juice more than offset its advantages. (Patients who object to juice from raw meat will willingly take that from meat browned.)"

Is there any specific action in this meat serum? Are the claims of Richet and Maragliano of its antitoxic action substantiated? Not as yet. Have we any medicinal agent of real value as an antibacillary remedy in tuberculosis? Not to my knowledge. Antipyretics, anodynes, arsenic, iron, strychnine, bitter tonics, etc., will help in the symptomatic treatment of pulmonary as well as surgical tuberculosis. More cannot be claimed, even for creosote and all its derivatives. There is, however, one remedy which is so valuable an adjuvant, particularly in the treatment of local tuberculosis in children, that I think it deserves a special mention; this is codliver oil. Among the poor, where cream and butter are not plentiful, I would consider codliver oil indispensable in the treatment of tuberculosis.

The keynote of success in the dietetic treatment of all types of tuberculosis consists in obtaining a perfect and ample nutrition. Sometimes we use the expression "overfeeding"—*suralimentation* of the French. I have used the expression myself, but it is really not quite correct. What we want to do is to maintain nutrition, maintain the normal bodily weight, or strive to obtain it when already lost. All tuberculous

³ Brown, Dr. Lawrason: Zomotherapy in Tuberculosis. *American Journal of the Medical Sciences*, June, 1903.

affections are accompanied by that peculiar phenomenon of increased amount of tissue waste, entirely out of proportion with the activity of the individual. Therefore we put our patient at rest, feed him amply, strive to increase his appetite by all possible means at our disposal; we serve his meals appetizingly, cold or warm—as he prefers them—out of doors or indoors. We urge him to eat, although he confesses not to have any appetite; we tell him that his digestive function can do far better than he himself believes or his appetite indicates. When appetite and assimilation are poor, and life in the open air, cold douches, and breathing exercises do not suffice to remedy the condition, nothing seems to act so gratefully and with such surprising results as the regular, carefully applied massage of the whole body at least once in twenty-four hours.

To the physician who has tried to practise massage himself, it will be known that the bed is a most inconvenient place to perform this operation. To improvise the massage table in a private home, all that is necessary is to place a large board, about five feet long and two feet broad, on the bed and cover it with a moderately soft mattress and a sheet. You will thus have a good resting plane on which to place your patient.

There are, of course, surgical tuberculous cases where subsequently to a capital operation the removal of a patient to a regular or improvised massage table is out of question until a complete healing of the wound. It is in such cases that a partial massage of either the upper or lower extremities, or both, without disturbing the trunk of the body, is indicated. This, of course, must be done in bed and one member taken after the other so that there is the least possible exposure of the uncovered portion to the cool atmosphere of the room. The greatest care must also be exercised so that the dressing of the wound is never disturbed through the massage manipulation, or the absolute rest of the region operated on, so essential for primary union, interfered with.

It would be utterly impossible to lay down a rule when massage is or is not indicated for surgical cases. All that I can say is that I recommend it in malnutrition, poor circulation, and deficient respiratory movements, and I recommend the surgeon either to apply it himself or to see that it is applied under his direction, so that good and not harm may result from it. As already indicated, judicious thoracic massage will help in the development of weak and atrophied chest muscles and facilitate respiratory exercises.

Some patients operated on for tuberculosis of any of the organs of the abdominal or pelvic cavity are troubled with cough, though the pul-

monary involvement may be slight. It will then be necessary to control the cough as far as possible by discipline, urging the patient always to suppress the dry cough and not yield to every little irritating sensation; sips of cold water or milk are often helpful in this endeavor. When there is expectoration and it is tenacious, an expectorant with some heroine or codeine may become indispensable, and the patient should be allowed to cough and to expectorate. Never should he swallow his expectoration. Patients who have undergone a capital operation in the abdominal or pelvic regions, which renders it undesirable that they should rise from their recumbent position, should be provided with moist rags wherein they may expectorate. The nurse in charge should see to it that these rags are burnt before they have a chance to dry, so as to avoid all possible sources of infection. Expectoring patients who can sit up should be provided with glass, aluminum or paper spit cups, or metal flasks (Figs. 10 to 17).



FIG. 10.—Dettweiler's sputum flask of blue glass.

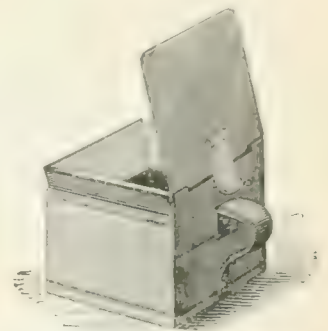


FIG. 11.—Frame for Seabury & Johnson's sputum cup.

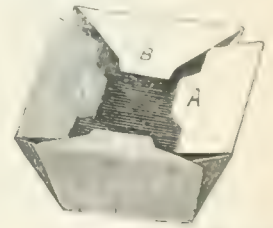


FIG. 12.—Pasteboard cup for Seabury & Johnson's frame.

To avoid drop infection, that is to say, the propagation of the bacilli through the expulsion of small particles of saliva which may contain them, patients should be enjoined to hold their hands or handkerchief before their mouth during the so-called dry cough, sneezing, etc. This precaution would seem to me particularly important while the wound is exposed for the purpose of redressing. The patient should, of course, always wash his hands before touching food.

We have spoken of the hygiene of aerotherapy, solartherapy, and hydrotherapy, of massage and

the dietetic and symptomatic management of postoperative tuberculous patients. It remains yet for me to say a few words on the psychical,

them, and only at certain hours. The patient himself should be enjoined never to talk to any one about his disease, except to his doctor or

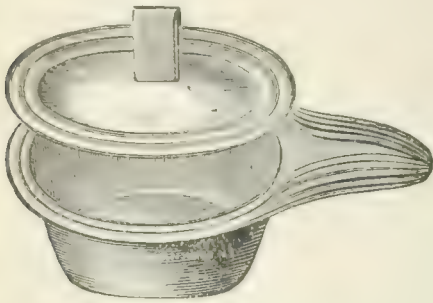


FIG. 13.—Pasteboard sputum cup for bedside.

and lastly on the climatic, treatment of this class of invalids.

One of the most important factors in the psychical treatment is to keep the patient occupied, and with something which has his cure for its ultimate purpose. At a given hour he should take his meals, at a definite hour his breathing exercises, at another his sun baths, at another his walk; all exercises to be adapted to his temperature and strength. The environments of the patient should be pleasant, for we must not forget that after capital operations a relatively inactive life may have to be enforced for weeks. As I have said above, the room should be cheerful; let there be a few



FIG. 14.—Nickel-plated, oval-shaped pocket flask, manageable with one hand.

flowers, and if the patient is musical, let him have his instrument. But also the outlook from his room, the veranda, bedroom extension, or roof should be made as pleasing as possible. A few shrubs, a few flowers, and some canvas can make out of a naked roof a delightful little roof garden. We must not give our patient a chance to be despondent or to brood over his disease. Cheerful visitors who have tact enough not to talk about other cases, other treatments, and other doctors, should be allowed, but not too many of



FIG. 15.—The same, hidden in the folds of a handkerchief.

nurse. The nurses, relatives, or friends, entrusted with the care of the invalid, should be of a happy disposition. They should keep from the patient depressing news and depressing literature, and through their whole demeanor create a cheerful atmosphere. I know only too well that by reason of our calling and the strenuous lives many of us must lead, you surgeons and we physicians are

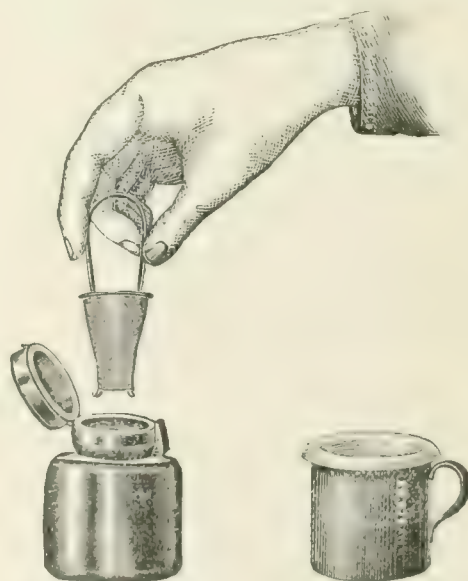


FIG. 16.—Method of emptying the flask.



FIG. 17.—Aluminum split-cup for bedside.

not always in the happiest frame of mind. When we enter the sickroom of our tuberculous friend we should be to him an inspiration of joy, con-

tentment, and hope. Let him read in our faces that he will get well.

Is there any climate particularly suited to the recovery of tuberculous surgical cases? If the lungs are sound, or very little involved, the seacoast climates are certainly to be recommended. If, however, besides the lesion for which the patient has been operated on, there is considerable pulmonary involvement, moderately high altitude in our temperate zone should be given the preference when transportation is feasible. Never should we send a patient far away after having operated on him, if he is greatly attached to his family. Nostalgia is a depressing factor and will hinder convalescence.

For the thousands of tuberculous and scrofulous children, particularly among the poor of our large cities, there should be seaside sanatoria. When one walks the crowded streets of our tenement districts in New York, one will see any number of deformed, rhachitic, tuberculous, and scrofulous children. Nearly all of them could be cured, made strong and useful citizens and breadwinners if we had sanatorium facilities to treat them. Germany, France, Italy, Holland, and the Scandinavian countries, have a large number of seaside sanatoria, with schools attached, for tuberculous and scrofulous children, and they report from 50 to 75 per cent. of absolute cures. It is a great pity that we in America, with our many beautiful and extensive seacoasts, our wealth and our many generous philanthropists, are so far behind Europe in this respect. France alone has 22 seaside sanatoria for tuberculous children, while we have one; yet how many thousand lives could we save and prevent from becoming consumptive adults if every State had such an institution. There would be a great economic gain to every community, for there would be fewer consumptive men and women to take care of afterwards. If it was scientific and permissible to call the seacoast climates in our temperate zones a specific for tuberculosis of the bones, joints, or skin in children, I should almost be willing to do so.

For patients recovering from operation for tuberculous arthritis, osteitis, and even peritonitis,⁴ a prolonged sojourn at the seacoast with judicious use of cold and warm salt water application, seems to act marvelously. I had occasion to observe for a number of months the beneficial effect of such a combined aerotherapy, heliotherapy, and hydrotherapy at l'Hôpital pour les Enfants tuberculeux, at Berck-sur-Mer in France. We received there weekly, and sometimes twice

weekly, twenty to thirty operated on youngsters from the great city of Paris. They were pale, anæmic, often cachectic, many being underfed and having the impress of poverty on their little faces. Two weeks or a month at Berck would show in these little ones a constitutional improvement which all the codliver oil of France, all the iron and arsenic, could not have brought about. And last, but not least, their wounds healed most kindly and rapidly. Thus, it would seem that what we need in the treatment of surgical tuberculosis—a tonic, a pure, aseptic, and antiseptic air—we find in the ozone laden atmosphere of the seashore.

For the poor woman who has been operated on in our public hospitals, there should be a bed in a convalescent home to which she could be sent, not only to make sure of her absolute recovery from her tuberculous surgical lesions and protection from contracting a pulmonary tuberculosis, but where she may stay long enough to regain the strength necessary to again take up her arduous duty as housewife or wage-earner.

The same need for a convalescent home exists for the poor laboring man who has undergone a serious operation. Our good Commissioner Folks, of the Department of Charities, has here again shown his humanity, administrative ability, and good will to help the doctors to help the poor. Last July a building with a capacity of 40 beds for men and 30 for women was set apart at Blackwell's Island to serve as a convalescent hospital where patients can remain from three to six weeks during the convalescent stage. But not only for the absolutely poor, but also for the moderately poor and the middle classes, are such convalescent homes needed, and in view of the hundreds and hundreds of such cases which need a home during their convalescence, the good work of Commissioner Folks must seem like "a drop of relief in an ocean of woe."

There is a large field open for practical philanthropy, and I must not close this little address without an appeal to you to make your influence felt wherever you can to induce statesmen and philanthropists to create along our beautiful seacoasts a number of permanent sanatoria for the treatment of tuberculous and scrofulous children, and to build more convalescent homes to which to send the poor adults after tuberculous and other severe operations until their earning capacity is again established. May you, my fellow physicians, practising the art of surgery, be successful in the establishment of many such institutions.

16 WEST NINETY-FIFTH STREET.

⁴La cure marine de la peritonite tuberculeuse, Congrès International de Médecine, 1900.

THE TREATMENT OF ACUTE AND SUB- ACUTE ANTERIOR GONORRHOEA BY RETROGRADE INJECTIONS OF STRONGER SOLUTIONS OF SILVER.*

By HERMANN G. KLOTZ, M. D.,

NEW YORK.

(Continued from page 983.)

Finger, in his text book, absolutely rejects the local application of simple or antiseptic astringents in the early stages of gonorrhœa. This, he says (latest German edition p. 151), is out of place at this stage when the principal aim must be the elimination of the gonococci; but the inflammation which contributes to their elimination, particularly the secretion, must not be reduced too much, because the gonococci would thereby be enabled and encouraged to remain in the deeper layers. Although Finger wishes us to pay the greatest attention to the elimination of the cocci in the early stages, no treatment is recommended for this purpose, except the increase of diuresis. Of course, much depends upon what is understood by early stages. It may be conceded that the gonococci do not multiply on the surface and in the uppermost strata of the epithelium, but must penetrate between the strata to cause more intense inflammation. Still within the first days after their entrance, when the secretion is usually very scanty or wanting, this danger cannot exist. Immediately after infection, and for a certain period afterward, the cocci must be present at or near the surface, therefore it will be out of question that they could be retained in the deeper layers at such a time. If, at this stage, we can prevent the development or increase of congestion and œdema of the tissues, surely the entrance of the cocci into the deeper layers will be obstructed; the more so if, at the same time, a silver solution is applied which not only destroys the cocci which it can reach, but at least temporarily increases the secretion, which Finger considers so desirable. For, on another page, he says himself that the object of treatment by topical remedies principally is to shorten the combat between the gonococci and the mucous membrane by attacking the cocci and rendering the mucosa stronger and more resistant.

That the mucous membrane in a state of inflammation furnishes a much better soil for the development of the cocci becomes evident by the generally accepted practice in latent, apparently cured cases, of temporarily provoking, by injec-

tions of silver nitrate, an acute inflammation, under the influence of which gonococci, retained in the deeper layers, reach the surface and become active. This experience is not in accordance with Finger's view that, in the second stage of the disease, in which he recommends the antiseptic astringents, the bulk of the gonococci was superficially located. If this was really the fact, chronic cases with their repeated relapses would not be so numerous. But no one will maintain that they do not occur at all, or less frequently under expectant treatment.

However, even if we were to admit that the early employment of astringents may to a certain extent interfere with the elimination of the gonococci, I should still consider the reduction of the secretion highly desirable, for the sake of the patient's comfort, which certainly deserves some consideration. Furthermore, the diminution of the discharge exerts an important influence on private and public hygiene, by insuring greater cleanliness of the patient and reducing the danger of his carrying infection to others; in addition, the subjective symptoms of the patient are much more proportionate to the degree of inflammation than to the number of gonococci actually present. Nevertheless, I do not believe that every case of acute gonorrhœa is suitable for such local treatment. I rarely meet with these virulent cases now, in which the penis is intensely hot and swollen, sensitive even to the slightest touch, with thick creamy pus continuously oozing from the congested, almost obstructed meatus. Under such conditions I have been giving for a number of years with very gratifying results moderate doses (8 to 10 grains) of sodium salicylate, with or without belladonna, every two to three hours, dissolved in water or alkaline mineral waters. Within a few days the sensitiveness and swelling become greatly reduced, the discharge thinner and less yellow. Whether the salicylate itself causes an increased diuresis, or whether this is due to the drinking of much water, remains doubtful. This medication combines the antiseptic action of the salicylic acid with a diminution of acidity of the urine, and has hardly any worse effect on the digestive organs than the usual prescriptions of potassium carbonate or citrate, or infusions of linseed. In these virulent cases it is necessary that the patient, as well as the diseased organ, be kept as quiet as possible, though ordinarily I allow my patients, with certain restrictions, to attend to their business.

Having amply explained the principles of the method of treatment, it remains to indicate its practical application under various conditions, and to illustrate its effects by a few histories of

*Read before the Section of Genitourinary Surgery of the Academy of Medicine, New York, April 15, 1903.

cases. I do not intend to give statistics of all my observations, or even of a large number, as I do not believe they would be more convincing, nor shall I attempt to furnish tables showing the time of disappearance of the gonococci from the discharge. After the secretion had completely stopped within two or three days, so that there was no opportunity for searching for cocci, nevertheless it usually seemed advisable to continue the treatment for a few days longer, to make sure of a permanent result. In general, my experience has been that cases of gonorrhœa, proved to be such by microscopical examination of the discharge, which came under treatment soon after infection and immediately on the appearance of symptoms, were permanently cured within a few, six to eight, days. In other cases I did not succeed at once in removing the cocci, but the symptoms of the disease were quickly reduced to such a degree that the patients hardly experienced any trouble or disturbance, except those immediately connected with the treatment, and all graver symptoms and complications were avoided. I readily concede that the treatment is not suitable to all cases and is not successful in all instances, even in patients who do not nullify the good endeavors of the physician by negligence or indiscretion like drinking, sexual excitement, or even intercourse, undue physical exertions, etc., but I am not conscious of having ever caused direct injury or provoked symptoms which may not occur under the most passive and mild treatment. Under all circumstances the treatment will be the more successful the earlier it is commenced and the more strictly it is followed out during the following days. In judging of the results of treatment I wish to direct attention to the great difference between primary infection and the reinfection of patients who have ever, at a more or less remote period of their lives, suffered from gonorrhœa, and who had apparently been cured. The former, as a rule, show a longer period of incubation, and a much greater tendency to acute symptoms, and to resist treatment. For this reason they probably offer the best opportunity of testing a remedy or a method of treatment, but in making up statistics or drawing conclusions, they ought to be considered separately from cases of reinfection.

Unfortunately we do not often see cases of primary infection at an early stage. Most of the patients have no idea of the importance of the disease and its possible consequences, and seek the advice of some friend or of the druggist or of a quack, perhaps of the family physician; but they come to the specialist only if after some time a cure or improvement has not been obtained or

complications have occurred. But occasionally I have had a chance to treat such patients, almost from the moment of the appearance of any symptom where they had been forewarned by friends or relatives, and have been quite successful in curing the disease within a short time, although not quite so short as in cases of reinfection. When a patient presents himself for treatment on the appearance of the first symptoms, say from four to seven days after infection in primary cases, from thirty-six hours to three or four days in reinfecting ones, the inflammation has rarely produced any more severe symptoms than itching or slight burning during micturition, moderate redness and swelling of the meatus, and some clear or slightly tinged discharge. Under such conditions, after the bladder has been emptied, an injection of some silver solution is immediately made in the concentrations of $\frac{1}{8}$ to $\frac{1}{4}$ per cent. of the nitrate, 2 per cent. of protargol, 1 per cent. albargin, etc. The fluid is deposited from three to four inches from the meatus. A second injection is made of a slightly stronger solution if the first one does not cause much burning. After removal of the syringe the meatus is kept closed for several minutes, during which the fluid is distributed as much as possible over the mucous membrane by compression and manipulation of the penis, and is then allowed to ooze out, some absorbent cotton being placed before the orifice. When the glans is covered by the prepuce, the entire surface should be wiped out with the silver solution, and the preputial cavity should be kept clean to prevent the entrance of gonococci from without. If the patient calls in the morning, he is advised to make an injection of the B. P. Z. solution before his evening meal, and once more before going to bed, but not the next morning; he receives a second silver injection, in the forenoon, usually of a stronger concentration than on the first day, and also on the third day, the B. P. Z. injections being repeated as on the first day; on the fourth day only the astringent injections are repeated three times; on the fifth day follows a silver injection, then the B. P. Z. injections are continued for forty-eight hours; and on the eighth day, after twenty-four hours' omission of all treatment, another silver injection is made, usually of a less concentrated solution. Usually, the discharge ceases after the second or third day, or becomes so insignificant that it hardly furnishes a specimen for microscopical examination; the gonococci often disappear on the second or third day, nevertheless, I consider it advisable to continue the treatment to the eighth day. Should the symptoms continue beyond the seventh or eighth day the silver injections are repeated at intervals

of three to four days as in the subacute cases; in the later stages I prefer silver nitrate to the organic silver preparations. If the conditions are not materially changed after from two to three weeks, some local affection of the mucous membrane, mostly remnants of former infections, must be suspected, and an endoscopic examination is made as soon as possible, to ascertain the cause of the delayed improvement. The continuance of the treatment for eight days seems judicious, even if all the symptoms have disappeared for several days, as a relapse involves a repetition and prolongation of the treatment. However, several patients, who considered themselves cured and stayed away after two injections, apparently remained well after continuing the astringent injections for some time; in several instances I would confirm the absence of all symptoms at a later period. Among fifteen cases of reinfection, taken without selection, which came under observation within twenty-four to thirty-six hours after the appearance of suspicious symptoms—eleven patients were discharged as cured within eight days, without any further treatment. The average number of (double) injections was four, one patient received only two, two only three, five had four, three had five. After the first day's injections ten were made on the second, ten on the third, one on the fourth, six on the fifth, two on the sixth, and three on the eighth day. In the other four cases, really acute symptoms never appeared or were quickly removed, but they required longer treatment, partly combined with sounds or endoscopic applications, on account of local changes of the mucous membrane.

If the patient does not come under observation until four or five days after the outbreak of symptoms, I do not attempt to obtain an immediate cure, but am satisfied to ease and reduce the symptoms to a moderate degree, or to maintain them in such a state that the patient has but little inconvenience from the disease and escapes the danger of further extension of the process. For this purpose the silver injections are not made oftener than every third or fourth day, while astringent solutions are administered by the patient, sometimes combined with oil of santal and other internal medicines. Under such circumstances milder solutions are usually resorted to (Protargol, 1 to 2 per cent.; albargin, 1 per cent.; silver nitrate, $\frac{1}{8}$ to $\frac{1}{4}$ per cent.) or thallin sulphate. It is remarkable how well these solutions are often borne without the slightest disagreeable consequences, while in others they are more irritating. Ordinarily, after three or four days the symptoms begin to increase again, so that another silver injection, probably slightly stronger,

is required, so that the treatment soon becomes identical with that of the subacute cases. The virulent forms have already been considered.
(To be concluded.)

OCULAR HEADACHE AND OTHER OCULAR REFLEXES; A STATISTICAL STUDY.

By M. W. ZIMMERMAN, M. D.,

PHILADELPHIA,

OPHTHALMIC SURGEON TO THE GERMANTOWN HOSPITAL.

(Concluded from page 977.)

There are two small groups of facts gathered from the whole 2,000 cases which possess a certain interest, the first of which includes those cases of convergent and divergent strabismus in which binocular vision was not present because of permanent deviation, and the second small group is composed of cases in which one eye had been removed or rendered absolutely sightless by injury or disease. Our conception of heterophoria as a producer of local or reflex symptoms requires the presence of binocular vision, and as this was absent in all the cases just mentioned, it might be of passing interest to consider headache in those groups (Table No. 7). Of divergence there were

Table No. 7.

		CONVERGENCE									
		DIVERGENCE					CONVERGENCE				
		Exotropia	Altiopia	Exotropia	Altiopia	Exotropia	Altiopia	Exotropia	Altiopia	Exotropia	Altiopia
Cases	Hospital	1	0	3	0	1	0	1	0	1	0
	Private	2	0	4	0	2	0	1	0	1	0
Total		3	0	7	0	3	0	2	0	2	0
No. of attacks	Hospital	15	0	10	0	1	0	2	0	2	0
	Private	2	0	0	0	2	0	2	0	2	0
Total		17	0	10	0	3	0	4	0	4	0

11 cases with headache and 13 without, and of convergence there were 19 cases with headache and 33 cases without. The second group, consisting of 20 monocular cases, had 10 with headache and 10 without, making the combined totals of these monocular cases, 40 with some form of headache, and 56 with none. The only point to make in this connection is that a group in which ordinary muscular action would seem to be eliminated furnishes a percentage of headaches very much smaller than that in the larger groups with maintained binocular vision. In considering muscular errors it has

always been a source of wonder to me to note the frequency with which high grades are tolerated by patients without apparently the slightest discomfort. This applies particularly to the lateral deviations, and includes faults which might be recorded as from 15 to 25 degrees.

At the time this study was begun the last records in both series were still comparatively recent,

Table No. 8.
RE EXAMINATIONS
HEADACHE. NO HEADACHE.

		HEADACHE.				NO HEADACHE.			
		Hypermetropia	Myopia	Hypermetropia Astigmatism	Myopia Astigmatism	Hypermetropia	Myopia	Hypermetropia Astigmatism	Myopia Astigmatism
Private	Under 20	1	0	12	1	0	1	5	2
	20-30	0	0	20	3	0	0	15	5
	30-40	0	0	19	0	0	0	5	4
	Over 40	1	0	13	1	4	1	18	5
Hospital	Under 20	2	0	14	1	1	0	4	1
	20-30	2	0	8	2	1	0	7	1
	30-40	0	0	3	1	1	0	3	2
	Over 40	1	0	2	0	0	1	7	1

and it is mainly on this account that my group of reexaminations is not larger. The period of time which had elapsed in these cases before a return of the symptoms may be assumed to be slightly less than is indicated by the recorded date of their reexamination, because it is rare to have a patient submit to a test promptly. The shortest period noted was six months, while the average of the entire number of reexaminations was 2.88 years, which probably very nearly represents the length of time a correcting glass may be expected to give satisfactory results. The average time which elapsed was essentially the same in the two groups, being 2.93 in the private, and 2.78 in the hospital patients. These reexaminations by the same observer offer some interesting information concerning the period which elapses before changes in the refraction are sufficiently large to cause a return of the symptoms, and thus demand treatment. They also make a small contribution to our knowledge of the optical changes which take place, probably more or less constantly, through life. Out of the 2,000 cases subjected to primary examination, 201 returned for reexamination, and of these 107 reported headache as the sole or principal symptom, while in 94 cases the desire for a change was entirely on account of visual failure. The facts are presented without totals in the Table No. 8.

The optical changes which had occurred during the elapsed time need not be elaborated, but they may be briefly mentioned. Increase of myopia occurred 22 times, the greatest amount being 2 D. Decreasing myopia appears but 6 times, and in small amounts, although in one instance it reached 1 D. Hypermetropia increased 85 times, the greatest gain being 1 D., but most of the changes were quite small. These alterations in refraction were rarely, if ever, due to a more complete cycloplegia in the second examination. Very few instances of absolutely unchanged refraction appear, but the astigmatic eyes show the familiar alterations in strength and axis of the correcting cylinder, and explain 33 cases in which the total refraction remained the same.

The influence of ill health as a predisposing cause of ocular headache is a generally accepted clinical experience, but a brief consideration of some facts recorded in this investigation may be of interest. It is often difficult to get sufficiently clear evidence of the direct sequence of ill health and ocular distress, owing to the time which has elapsed, and the general lack of an impressive and abrupt onset of the symptoms. The routine note taking of hospital service, and also to a lesser degree in private practice, frequently omits any

Table No. 9.
ILLNESS PRECEDING OCULAR HEADACHE.

	Acute inflammation	Cataract	Chronic inflammation	Conjunctivitis	Deafness	Malnutrition	Parasitic infection	Pharyngitis	Pyrexia	Scarlatina	Scurvy	Tuberculosis	Unhealthy habits	Unhealthy surroundings	Unhealthy diet	Unhealthy occupation	Unhealthy climate	Unhealthy season	Unhealthy time of day	Unhealthy place
Private	8	2	2	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hospital	1	0	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

ILLNESSES (Continued)

	Pneumonia	Diphtheria	Scarlatina	Rheumatism	Whooping cough	Dysentery	Nephritis	Malnutrition	Unhealthy habits	Unhealthy surroundings	Unhealthy diet	Unhealthy occupation	Unhealthy climate	Unhealthy season	Unhealthy time of day	Unhealthy place
Private	3	2	1	2	2	2	1	2	2	2	2	2	2	2	2	2
Hospital	1	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2

direct attention to this important point; there are, however, among the 1,534 cases of headache, including the reexaminations, 294, or 19.16 per cent., in which specific mention is made of the illness which preceded the onset of ocular symptoms, and to which the patient attributes the trouble (Table No. 9). Severe illness may bring about

this result, either by simply lowering the general resistance to the point at which a previously existing ocular error becomes capable of starting reflex symptoms, or the profound nutritive changes which occur under these conditions may produce an actual physical change in the eyes, demanding correction by glass. Pregnancy and prolonged subsequent lactation are very frequently followed by a change in the optical error. It is of interest to note the frequency of symptoms following attacks of the familiar epidemic influenza, even when the acute period has been brief and seemingly mild; thirty of the above illnesses were of this character.

In attempting to study the relations of migraine to eye strain, one difficulty is dependent upon the somewhat vague application of the term, hence it is to be understood that, for the purposes of this paper, we shall consider migraine to be that form of periodic headache which may be preceded by an aura, which displays a strong tendency to the unilateral type, and usually terminates with nausea and vomiting. It will be observed that, of the various clinical phenomena, only periodicity has been considered essential. It is by no means uncommon to find during the progress of purely ocular headaches, a period of nausea, often with vomiting. These attacks most frequently represent an unusually severe or prolonged demand upon the eyes, and the gastric symptom does not necessarily change the character of the headache by its presence, or cause its disappearance. Still more frequently the two forms of headache exist concurrently, a constant form or one appearing only with eye use, and, at irregular and definite intervals, typical attacks of migraine which bear no certain relation to the other form. Where this occurs it may easily happen that the two forms have been confused, or have been considered the same clinical entity, differing only in degree, and their separation has only become manifest after optical treatment has cured one, leaving the other in bold relief. This is an important distinction to make, as the prognosis differs very much in the two forms—being very good, indeed, as to one, but uncertain regarding migraine, which may, however, be much moderated by the absence of accentuation, which undoubtedly is a common result of the double presence.

It is not desirable in this paper to discuss other causes of migraine, but I wish to present in some detail the facts concerning a group of cases of purely ocular origin. Excluding all which do not conform to the definition previously given, there remain 33 cases for consideration. In 12 of these the interval between migrainal attacks was more

or less occupied by ordinary ocular headache and asthenopia, while in the remainder no other form of headache existed. In only 9 could the facts be readily determined by excessive eye work (Table No. 10). It should be noted that there have been

Table No. 10.
TRUE MIGRAINE. DETAILS FROM SAME CASES.

	Migraine without details	Migraine with ocular headache in interval	Migraine caused by eyes	Migraine cured by wearing glasses	Migraine improved by wearing glasses
Private	20	11	8	6	2
Hospital	9	1	1	2	1
	29	12	9	8	3

excluded from the above group of migraines, 35 cases of hemicrania without nausea or vomiting, and 25 cases of bilateral headache in which nausea and vomiting appeared. There were no cases of the ophthalmoplegic type with paralysis of one or more extraocular muscles, and the available notes do not permit me to make a separate group of those migraine cases in which a portion of the pain storm was located in and around the eye.

Visual premonition or aura in some form was present in 8 cases proved to be ocular, also in several of those not relieved by correcting the optical error, which, I think, tends to establish the fact that a visual aura does not necessarily indicate the visual organ as the exciting source of the attack (Table No. 11). I have made a very troublesome

Table No. 11.
VISUAL AURAS IN MIGRAINE.

No.	Private.	No.	Hospital.
1	Large central subjective Scotoma.	1	Muscae with blurring of vision.
1	Revolving disc of colors, alternate rings in different directions.	1	Sensation of several colors in centre of field no motion
1	Dilated pupils, darkness, heat waves, then subjective hemianopsia.	1	Unilateral eye pain.
		2	Without details.
3		5	

effort to trace all cases of migraine treated by me, in order to secure a complete record of the results, because nothing but a cure by glasses will demonstrate ocular origin satisfactorily. In 22 patients no satisfactory history could be obtained, or the glasses failed to have any effect. There were 8 patients who reported complete cure of migrainal attacks for a reasonable period, and 3 in which a certain degree of relief was secured. Some of these

have been the most satisfactory treatments of my medical experience.

There is a question concerning which oculists have, I fear, been indifferent, and which I shall briefly mention here: the headache habit. Neurologists are quite awake to the existence of this habit, which is, of course, most manifest in patients who have suffered much, or constantly for a long time. Pain habits differ in their practical application but little from other habits; they require the addition of patience and ingenuity to the therapeutic equipment. Where headache is of recent origin and mild in degree, or when it appears after well defined ocular efforts, a prompt response to optical correction may be looked for; the full benefit being frequently obtained at once. When, however, the pain is an old story and has become a part of the patient's life, the removal of an ocular or other exciting cause cannot be expected to act so promptly. There will probably be some immediate modification of the symptom in the nature of a qualitative effect, but if no further measures are taken the result may be finally good, but it is unlikely. If there exists general disease or malnutrition, or a faulty performance of any bodily function, the patient should have the indicated treatment; there are, however, a few measures which properly come within the province of the oculist, and which, in justice to the sufferer, should be applied if pain does not at once markedly abate.

During the early wearing of new glasses, while the eye and its ciliary muscle are adapting themselves to new conditions, great benefit results, in my experience, from extremely weak solutions of a meiotic, eserine salicylate, grain $\frac{1}{20}$ to $\frac{1}{50}$, to the ounce, preferred. I confess my use of it has a distinct empiric flavor, but perhaps it may be considered a tonic to the ciliary muscle, with some tendency to steady its erratic action under new conditions. The benefit from decrease in the pupil must be very slight, as usually there is no noticeable change in its size. Solutions of this strength cannot be considered irritants to the iris or other structures of the uveal tract, on the other hand, they are harmless; furthermore, they are for temporary use only. Where the headaches are distinctly periodic in type great benefit may be derived from the use of some remedy from the "coal tar group," given only at the onset of the attacks and for the purpose of breaking them up. Where the persistence of a symptom is due to this pain habit, attention to such additional remedial measures as I have indicated will often help the patient over the rough and critical stage to a complete cure. At such times also it will be wise carefully

to regulate the amount of eye work allowed the patient. After finding the maximum amount of work consistent with comfort, this should be gradually increased, by a definite number of minutes daily, if necessary, until comfort under ordinary conditions is secured. All these details become more necessary in the presence of hysteria or neurasthenia.

Although headache is more important than all other forms of established ocular reflex, it would seem proper at this time to devote a little attention to the comparatively few instances of the latter which occurred in the groups of cases now under analysis (Table No. 12). In preparing the

Table No. 12.
REFLEXES OTHER THAN HEADACHE.

	Epileptiform attacks	Vertigo	Shoulder pain	Abnormal head position	Blepharospasm
Hospital	1	6	1	0	1
Private	1	3	1	1	1
	2	9	2	1	2
Cured by glasses	1	4	1	1	2

small accompanying table an effort has been made to include only those cases in which there seemed to be a clinical relation between the eyes and the symptom. It is by no means intended to assert that all these instances were ocular in origin, but simply that most of the reasons for such a conclusion were present. No doubt, however, attaches to the nine cases, embracing at least one in each of the five groups, which were cured by the wearing of glasses, and in the absence of other important forms of treatment. Of peculiar interest is the first group of but two cases suffering from convulsive attacks, which were thought by other physicians and myself to be true epilepsy. This, of course, was simply an opinion, and in view of the fact that in one case the symptoms disappeared under optical treatment, I have considered it wise to use the term epileptiform. Of the result in one case I have no record whatever; of the other, which is reported as cured, I had frequent information for a period of two years after the glasses had been adjusted, during which time there was a complete absence of all convulsive seizures. Since that period I regret to say the patient has passed out of my observation. I have knowledge that this patient, during the two years mentioned, was receiving no other form of treatment, hence I think we must conclude her condition to have been a purely ocular reflex. It must be distinctly un-

derstood that the writer cannot assert that it was true epilepsy, nor will he be able to report the subsequent course of events, as the patient has entirely disappeared. Other forms of reflex disturbance of less importance, and each furnishing but a single instance, were as follows: Chorea of the eyelids, somnolence, abdominal pain and insomnia, the latter patient reporting a complete cure by the use of glasses. No reports whatever were received from the other three patients.

Having presented this matter from every point of view as fully as seems to me possible or desirable, there remains for consideration that which in medical practice is of greatest importance, especially to the patient; I refer to the results. It can perhaps with safety be said that careful optical treatment of ametropia is the most satisfactory therapeutic measure in the whole field of medicine. Of course, it must be understood that the condition is not cured, but that the symptoms are relieved by treatment. Glasses given for astigmatism, for example, have very little effect, if any, upon the physical asymmetry of the clear media which we describe by that term, but the discomfort and disability which resulted from the condition have been removed. Even where, after a lapse of time, glasses are discarded without a return of the discomforts, we must understand that the refraction of the eye has undergone little or no alteration. It is for practical clinical purposes sufficient for us to recognize a predisposing cause, which is the optical error, and the exciting cause, which is usually excessive eye work. If the amount of work is reasonable, there is some condition of local or general health which decreases the endurance of these organs; hence it is no uncommon thing to have a patient secure relief from one pair of glasses, and then, after discarding them, remain without symptoms for many years, until a change of occupation or a loss of health disturbs the balance between cause and effect. As before stated, we have a total of 1,427 cases presenting headache. In the histories of 633 of these there is no satisfactory statement concerning the result, a regrettable fact due almost entirely to the common neglect of patients to report. I believe this group without report contains at least as large a proportion of good results as that which we shall consider later; in fact, the absence of report creates a reasonably strong presumption that the treatment was successful. We have, then, a group of 794 cases in which the result of treating headache by the correction of an optical error is recorded. These have been tabulated as to the kind and degree of error, also in three vertical groups—"cured," "benefited" and "not benefited" (Table

No. 13). "Cured," in this table, does not necessarily mean absolute cure, although that is very

Table No. 13.
RESULTS OF TREATMENT.

	HOSPITAL CASES.				PRIVATE CASES			
	Cured	Improved	Not improved		Cured	Improved	Not improved	
Hypermetropia	51	5	3	59	51	5	1	60
Hypermetropia 3 D. or over	13	1		11	6			6
Hypermetropic Astigmatism	112	19	6	137	274	46	6	326
Hypermetropic Astigmatism 3 D. or over	22	3		25	45	4		49
Myopia	2			2	2			2
Myopia 3 D. or over	3		1	4	1	1	1	2
Myopic Astigmatism	14			14	24	1	1	26
Myopic Astigmatism 3 D. or over	2	1		3	18	2		21
Anisometropia	5			5	10			10
Mixed Astigmatism	9		1	10	16	2		18
Emmetropia					1			1
	234	29	11	274	451	61	9	521

commonly the result. It does mean, however, such a profound modification of the symptoms that the patient is no longer suffering any annoyance which cannot be controlled by a little attention to ocular and personal hygiene. The failures were absolute as to headache. Those benefited no doubt varied in degree, but beyond this nothing can be said. This would indicate that such a group of cases yielded 86.1 per cent. of practical cures, which I think justifies the little enthusiasm in which I have permitted myself to indulge. Just one detail in the above table occurs to me as worthy of separate mention, and that is, the higher relative percentage of total failures in the hospital hypermetropic groups. As to the reason for this I am uncertain; probably it may be accounted for by the much greater frequency of gravely impaired health among the poor and overworked.

Glycerin in Ophthalmic Therapy.—Catillon, quoted by *Journal de médecine interne*, for October 15, 1903, states that glycerin added to collyria of atropine prevents irritation, and renders the solution more stable; potassium iodide in a solution of equal parts of glycerin and water is less painful than the pure aqueous solution. Foucher has recommended the entire substitution of glycerin for water in collyria. Debout uses glycerite of starch as an excipient for ointments of copper sulphate, mercury biniodide, and bichloride. Finally, Catillon credits glycerin with being in itself a precious application for the eyelids.

Therapeutical Notes.

For Ophthalmia Tarsi.—Nettleship (*Diseases of the Eye*) recommends the following formulæ for softening the crusts in severe ophthalmia tarsi:

(1).

R Sodium carbonate.....10 grains;
Water1 ounce.

M. A small quantity of the lotion, diluted with its own bulk of hot water, to be used for soaking the edges of the eyelids for ten or fifteen minutes, night and morning.

(2) Or this:

R Sodium carbonate.....1½ drachms;
Liquor carbonis detergens.....1 to 4 drachms;
Waterto 20 ounces.

To be used as the foregoing.

(3) Or this:

R Borax10 grains;
Water1 ounce.

To be used as the foregoing.

Sodium Sulphanilate in Exophthalmic Goitre.

—According to the *Gazzetta medica lombarda* for November 8th, Kirnberger (*Therap. der Gegenwart*, October), starting from the hypothesis that the nervous phenomena presented by subjects of Basedow's disease are due to an iodic autointoxication caused by excessive production of iodothyrein by the hypertrophied thyreoid gland, has recommended the use of sodium sulphanilate in these cases. Ehrlich and Kronig had previously recommended sulphanilic acid and its sodium salts for iodism.

Bocquillon-Limousin (*Formulaire des nouveaux médicaments*, 1901) gives the following as the best forms for administration:

R Pure sulphanilic acid.....10 grammes (150 grains);
Sodium carbonate.....8.05 grammes (2 drachms);
Distilled water.....200 grammes (18¾ ounces).

M. From three to five dessertspoonfuls daily, preferably in two doses.

Or,

R Sodium sulphanilate.....10 grammes (150 grains);
Distilled water.....200 grammes (18¾ ounces).

M. Six dessertspoonfuls daily in two doses.

Kirnberger gives his patients 10 grammes (150 grains) of sodium sulphanilate daily, a much larger dose than that recommended by Bocquillon-Limousin; it is, however, not only perfectly tolerated, but shows great advantages. It gives restfulness and vigor, causes gain in flesh, and a sense of well being and notably diminishes the tachycardia. But in most cases the remedy has no influence on either the hypertrophy or the tremor. The effects appear to be simply palliative.

Ringworm of the Scalp.—Professor Hallopeau, according to *Medical Press*, for July 15, 1903, recommends thorough cleanliness, removal of broken hairs with a pincers and the application, night and morning of:

R Glycerin1 ounce;
Spirits of turpentine.....2 ounces;
Camphor2 ounces;
Alcohol10 ounces.

M. For a lotion.

Also every morning:

R Iodine10 grains;
Vaseline1½ ounces.

M. For an ointment.

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SANITARY MATTERS IN THE PROVINCE OF
PAMPANGA, IN THE PHILIPPINE ISLANDS.

We are indebted to the president of the Provincial Board of Health, Dr. F. W. Dudley, for a copy of the board's report for that portion of the year ending June 30, 1903, during which, as at present constituted, it was in operation, namely, from October 7, 1902. It seems that there were two previous boards, but that their records were so destitute of value as to make it impossible for the present board to give particulars of their doings.

The Province has an area of 217,600 hectares and a population of 226,180. It includes twenty-three towns, seventeen of which have organized health boards. Apparently it would be a paradise for doctors if only the inhabitants looked upon disease as anything else than bad luck and if they more generally employed regularly educated physicians rather than the *cirujanos ministrantes*. The most prevalent diseases are infantile convulsions, malarial fevers, cholera, tuberculosis, smallpox, and dysentery. Well directed efforts have been made to vanquish smallpox and to instruct the natives as to the water-borne character of cholera, and there are not lacking indications that in time these efforts will bear fruit, for such occurrences as the following must produce a wholesome impression: "It was noticed

both times cholera visited San Fernando that certain districts of the town seemed to have a peculiar immunity. Upon investigation, this was explained by the fact that the inhabitants of these districts used water from an artesian well at the railroad station. In the first epidemic it was noticed that most of the cases in the infected portion of the town could be traced to a certain well. When this well was closed cholera disappeared."

Criminal violence as a cause of death probably eludes detection in many instances, for we read that "as a rule burial is given without medical examination for the State, and often, weeks and even months after interment, prosecution of the person inflicting the injury is instituted by the friends or relatives of the diseased. Medical testimony is then required to show whether or not the deceased met his death from injury or natural causes. The only evidence usually available is that of the person who attended the deceased, ordinarily a *practicante*, who does not possess a medical education, and the writer personally is aware of cases where *practicantes* (evidently for a sum of money) have attempted to conceal the facts in such cases."

Brief data are set forth concerning the snakes of the Province—four non-venomous and five venomous species, also a number of more or less poisonous insects. Moreover, there is contained in the report a valuable though fragmentary account of the poisonous and medicinal plants of the Province. Much further information on various subjects is given, and on the whole the report must be reckoned as a valuable contribution to sanitary literature.

THE HAFFKINE PROTECTIVE INOCULATION AGAINST THE PLAGUE.

The November number of the *Johns Hopkins Hospital Bulletin* contains a notable article on this subject, by Dr. B. Rosalie Slaughter, of Washington, in which attention is wholly given to some points not generally known to have been settled. The first of these questions relates to the length of time for which the inoculation confers immunity. Haffkine maintains that the protection lasts from four to six months and in some instances from a year and a half to two years, but experience has seemed to indicate that it cannot

be depended upon absolutely for a longer period than three months; consequently it is the common practice among those who are working in plague districts to be reinoculated every three months.

Next there is the question of the promptness with which the inoculation confers immunity. Extensive observation has established the conclusion that protection is effected in less than twenty-four hours—that is to say, within that time either the disease will be prevented or its severity mitigated, even if infection with it has taken place twelve hours before the protective inoculation is practised. The third point is not sharply distinguished from the second; it relates to the effect of the Haffkine inoculation during the period of incubation of the disease. The conclusion is that in many cases it has the power of aborting the plague. This is in decided contradiction of Calmette's assertion that "a person in the incubation period for a slight attack of plague would find the disease considerably aggravated if he submitted during this period to a preventive inoculation of Haffkin's vaccine. The case would almost certainly end fatally." The author points out that this opinion of Calmette's is based solely on laboratory experiments and is not borne out by experience in actual life.

The next question considered is that of why it is that, in spite of England's persistent efforts to exterminate the plague, so little has been accomplished. There are several reasons: 1. The work, earnest and intelligent as it has been, really covers but a comparatively small area of the great Indian Empire. 2. The villagers, having been protected during a given outbreak, neglect to seek protection against the next one. 3. Those who flee from infection bring back with them attenuated bacilli that under favorable conditions regain their virulence. 4. The infection is brought upon a community anew by Mohammedans and Hindus returning from Mecca and Benares.

Does the protective inoculation increase the liability to other diseases? This question recalls one of the persistent assertions of the opponents of the Jennerian vaccination. Records kept of the yearly deaths among the uninoculated Sepoys and the same number of inoculated villagers have

shown more deaths among the Sepoys—the picked native soldiers, representing the healthiest body of men in India—than among the villagers, proving conclusively that the Haffkine inoculation does not predispose to any disease, and has no injurious effect upon the health. On the contrary, it seems to be beneficial in some cases of eczema. On the whole, the article is one of the most powerful arguments that we have seen in support of the preventive inoculation.

THE MODERN CONCEPTION OF ACUTE ASCENDING PARALYSIS.

Landry's description of this disease in 1859 included much less than what we now include under the term acute ascending paralysis. To Landry the disease meant a rapidly ascending motor or flaccid paralysis without muscular atrophy, electrical reactions, or disturbance of the reflexes, without any bladder or rectal trouble, without sensory or trophic phenomena, and without any discoverable post mortem findings. It usually terminated fatally in a few days from respiratory involvement and other bulbar symptoms, and was believed by Landry, Westphal, and others to be due to some form of virulent poisoning. In the absence of all post mortem findings, the disease was regarded as a mystery.

Ere long, however, cases began to be reported in which Landry's phenomena had associated with them slight sensory symptoms, slight trophic manifestations, muscular atrophy of a mild type, slight electrical changes, and disturbance of the reflexes. The opinion grew that Landry's paralysis was a form of multiple neuritis (Ross, Möbius, Pitres and Vaillard, Manwerck and Barth, and others). Comparisons were made between it and the paralysis produced by such toxic agents as alcohol, curare, lead, diphtheria, etc. Others thought they recognized in the disease indications of a mild anterior poliomyelitis or a rapidly ascending meningomyelitis. All agreed, however, that the disease, whatever it was, showed primary involvement of the lower motor neurone, probably functional or degenerative in some cases, interstitial and inflammatory in others; but always due to some virulent intoxication of bacterial origin. Many of these later cases

are the reverse of true Landry's paralysis in that they descend instead of ascending, occasionally end in recovery, and not unfrequently reveal distinct post mortem findings in the peripheral nerve roots and spinal cord structures. The bacterial origin of the disease is suggested by the toxic character of its symptomatology, by its occasional incidence with diphtheria, typhoid, variola, anthrax, influenza, pneumonia, pertussis, septicæmia, rabies, and other infections, by the enlarged spleen, pleuritic adhesions, and other residua observed in the autopsy, and by the character of the changes in the nervous structures themselves.

Various microorganisms have been found in the disease and cultures made from them by Baumgarten, Centanni, Eisenlohr, Remmlinger, Curschmann, Oettinger and Marinesco, Marie and Marinesco, Bailey and Ewing, Burghart, Friedländer and Giese, Mouravieff and Montourine, and many others. Thoinot, Maselli, and recently Buzzard have produced a condition almost identical with Landry's symptom complex by the introduction of microorganisms into the blood of animals. Though no specific bacterium has been found for acute ascending paralysis, it is pretty well established now that the symptom complex is the result of an intoxication of bacterial origin. To harmonize Landry's description with the later findings, it is believed that some patients are so swiftly overwhelmed with the virulent toxine that there is no time for histopathological changes to occur in the nervous elements and the patient dies of a violent form of functional paralysis in which the toxine inhibits the most susceptible group of neurones.

As Buzzard well says, there are various types of Landry's paralysis, depending upon the virulence of the toxic agent, the length of time it acts upon the delicate nervous structures, the degree of vulnerability of those structures, and the location of the maximum foci of the disease. In other words, Landry's paralysis is not a disease, but a mere symptom complex constituting one form of nervous intoxication. It is not acute meningomyelitis, poliomyelitis, or even multiple neuritis, though in some of its forms it may closely simulate any one of these.

The observations and experiments of Buzzard (On the Pathology and Bacteriology of Landry's

Paralysis, *Brain*, Spring, 1903, p. 94) are all but conclusive and go far toward establishing the nature of this long mysterious malady. Pure cultures were made from the blood and tissues of a typical fatal case of acute ascending paralysis under the care of Gowers. Injections from these cultures were then made in rabbits, producing symptoms identical with those with which the man died. The microorganism of the cultures assumed the form of a diplococcus, each having the appearance of a split pea. This diplococcus of the culture was completely indistinguishable from that which was found in large numbers in the external part of the spinal dura of both the man and the rabbits. Moreover, the changes in the nervous systems of both the patient and the animals were of the sort usually produced by toxins, and in neither case was the microbe demonstrable in the nervous structures themselves or in the pia arachnoid. The author suggests for this microorganism the name *Diplococcus thecalis*, and concludes thus: "I do not claim that my investigation proves that all or even many cases of Landry's paralysis are due to this organism, but I venture to hope that it may, if confirmed by other observations, help to expose a hiding place from which members of the bacterial community have been wont, unknown to us, to exert their pernicious influence on the delicate structures of the central and peripheral nervous system."

If accurate knowledge of the pathogenesis of a disease is the only basis upon which a rational therapy can be instituted, such observations as these will go far toward directing us how to best treat acute ascending paralysis. The ideal remedy would, of course, be an antitoxine, and it is to be hoped that such will soon be found. Now that the true nature of the trouble is known, renewed energy will be directed toward a search for the particular bacterium or bacteria concerned. For the present little more can be done than to maintain at the highest point possible, by stimulation, the patient's vital forces and to increase as far as may be the function of the emunctories of the body in order to eliminate the poison expeditiously. The skin is to be stimulated with warm baths and hot packs, the bowels with laxatives, and the kidneys with diuretics. Large doses of ergotine (two grains every hour), salicylate and

benzoate of sodium, and, as usual, mercury and the iodide of potassium, have been recommended and tried, but without any very encouraging results. The ergotine and the actual cautery to the spine seemed to be effective once, but it is to be remembered that now we know that at rare intervals a case of Landry's paralysis ends in recovery of itself. The nature of a disease so serious, so rapid in its course, and so often fatal should be well known to the general practitioner, for to him will fall the lot in most cases, as in cerebral hæmorrhages, to see the patient first and to institute a line of treatment that may hasten or retard the fatal issue. L. HARRISON METTLER.

A CASE OF AUDACIOUS MENDACITY.

We have been lately in receipt of letters inquiring as to whether the editor of the *New York Medical Journal* had really endorsed the treatment of a certain "Dr. Edwin Turnock," who is advertised as "a noted French-American physician and scientist," by the Turnock Medical Company, 437 Turnock Building, Chicago, Ill. Some of our correspondents have submitted copies of an advertisement from lay publications, in which the statement is made that the preparation advertised will "positively cure . . . every form of kidney, bladder, or urinary trouble in man, woman, or child. That it will do all this is the opinion of such authorities as Dr. Wilks, of Guy's Hospital, London; Dr. Frank P. Foster, editor of the *New York Medical Journal*, and author of Foster's *Practical Therapeutics*; Dr. H. G. Wood, member of the National Academy of Science; and a long list of others who speak of it in the highest terms." It is hardly necessary to say that this statement is absolutely false, so far as the editor of this journal is concerned; and we do not doubt that it is equally mendacious so far as it concerns Dr. Wilks and Dr. Wood. It was denounced by us as false several months ago, but notwithstanding this, the advertisement still appears in various household periodicals. The matter has been placed in the hands of our attorney.

TROPICAL BUBOES.

It seems, according to zur Veerth (*Archiv für Schiffs und Tropenhygiene*, 1903, No. 2; *Zentralblatt für innere Medizin*, November 7th), that a severe illness accompanied by buboes, commonly of the inguinal region, occurs frequently among sailors in the tropics quite independently of venereal or plague infection. The author attributes it to the heat. There is high fever, with decided loss of flesh and strength, not relieved till the buboes are laid open.

News Items

Society Meetings for the Coming Week:

TUESDAY, December 1st.—New York Neurological Society; Buffalo Academy of Medicine (Section in Surgery); Elmira, N. Y., Academy of Medicine; Ogdensburg, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Hudson, N. J., County Medical Society (Jersey City); Androscoggin, Me., County Medical Association (Lewiston); Baltimore Academy of Medicine; Medical Society of the University of Maryland (Baltimore).

WEDNESDAY, December 2nd.—New York Academy of Medicine (Section in Public Health); Society of Alumni of Bellevue Hospital; Harlem Medical Association of the City of New York; New York Genitourinary Society; Medical Microscopical Society of Brooklyn; Medical Society of the County of Richmond, N. Y. (New Brighton); Penobscot, Me., County Medical Society (Bangor); Bridgeport, Conn., Medical Association.

THURSDAY, December 3rd.—New York Academy of Medicine; Brooklyn Surgical Society; Society of Physicians of the Village of Canandaigua, N. Y.; Boston Medico-psychological Association; Obstetrical Society of Philadelphia; United States Naval Medical Society (Washington); Medical Society of City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

FRIDAY, December 4th.—Practitioners' Society of New York (private); Clinical Society of the New York Post-graduate Medical School and Hospital; Baltimore Clinical Society; the Manhattan Clinical Society.

SATURDAY, December 5th.—Manhattan Medical and Surgical Society, New York (private); Miller's River, Mass., Medical Society.

Change of Address.—Dr. William E. Swan, to 63 West Fifty-second Street.

NEW YORK

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending November 21, 1903:

	Week end'g Nov. 14.		Week end'g Nov. 21.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	246	9	307	17
Diphtheria and croup	423	38	284	44
Scarlet fever	163	5	171	8
Smallpox	1	0	4	0
Chickenpox	71	0	82	0
Tuberculosis	314	154	399	134
Typhoid fever	102	14	68	13
Cerebrospinal meningitis ..	..	3	..	4
Totals	1,320	223	1,315	220

The Old Bellevue Medical College Building was thrown open on November 17th as a dispensary for outdoor patients of the hospital; it has been renovated and made fireproof at a cost of some \$53,000.

Dr. A. W. Lines, said to be the oldest woman physician in the world, celebrated her eightieth birthday on November 21st in her old fashioned home at 285 Washington Street, Brooklyn. She was licensed to practise in 1853.

Examination for Police Surgeons.—On account of alleged irregularities in the examination held in January, 1902, for positions as police surgeons, the present eligible list of sixty-two, it is said, will be wiped out and another examination held on December 7th next. The position commands a salary of \$3,000 per annum, and the appointee is allowed to continue his private practice.

The Nurses of St. Luke's Hospital are endeavoring to raise a fund for the permanent endowment of a room for sick nurses, graduates of the institution. A fair was held in the training school on November 19th and 20th with excellent results for the fund.

The Memorial Hospital, of Brooklyn, having sold its old building at Classon and St. Mark's Avenues to the Jewish Hospital Association, has reopened at 827 Sterling Place, near Nostrand Avenue. A fair will be held shortly to provide funds to carry on the work.

The Alumnae Association of the Brooklyn Hospital Training School held a poppy fair at the Clermont rooms, 360 Clermont Avenue, on November 19th and 20th, to help raise the sum of \$10,000 to endow a room for sick nurses in the Brooklyn Hospital. The results were satisfactory, it is said, although the sum realized was not stated.

The Willard Parker Hospital, at the foot of East Sixteenth Street, is to have a seven story annex in which will be the offices on the lower floor, and the living rooms of the physicians and nurses on the upper floors. It is to be sixty-six and one half feet front by forty-eight and one half feet deep, with an extension twenty-seven feet deep. The cost is estimated at \$150,000.

Willard State Hospital.—There are several vacancies in the ward service of this institution, as follows: Charge nurses, men, \$34 to \$39 a month; nurses, men, \$31 to \$36 a month; nurses, women, \$26 to \$31 a month; charge attendants, men, \$30 to \$35 a month; women, \$25 to \$30 a month; attendants, men, \$22 to \$26 a month; women, \$16 to \$20 a month. This includes full maintenance with laundry work. There is an increase of wages of one dollar a month at the end of each six months of continuous service, and an annual vacation of fourteen days is allowed. The requirements are good moral character, temperate habits, average intelligence, common school education, sound health, and a good physique. Applicants must be of average size and weight and not less than twenty-one years of age.

PHILADELPHIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

	Week end'g Nov. 21.		Week end'g Nov. 14.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	68	7	34	1
Diphtheria	103	14	106	30
Scarlet fever	84	4	103	2
Typhoid fever	118	11	133	7
Consumption .....	..	45	..	44
Cerebrospinal fever .....	..	..	..	..

Mütter Lecture on Surgical Pathology, College of Physicians of Philadelphia.—The Mütter Lecture for 1903 will be delivered in the hall of the College of Physicians, N. E. corner of Thirteenth and Locust Streets, on Tuesday, December 1st, at 8.30 p. m., by Dr. C. N. B. Camac (108 East Sixty-fifth Street), of Cornell University, College of Medicine, New York city. Subject: Some Observations on Aneurysm and Arteriosclerosis. John H. Brinton, M. D., chairman. George McClellan, M. D., J. Alison Scott, committee of the Mütter Museum.

A Reception to Dr. S. Weir Mitchell was given by the Medical Club, of Philadelphia, on November 20th in the Hotel Bellevue, where 300 guests were present, including Mayor Weaver, Dr. R. G. Curtin, Judge A. M. Beitler, Dr. H. M. Thomas, of Baltimore; Dr. Guy Hinsdale, Dr. F. S. Pearce, Dr. J. W. Holland, Surgeon Oliver D. Morton, United States Navy; Surgeon W. C. Kieffer, United States Army; Dr. McGaney, of the British Colonial Service, and Dr. Edward E. Montgomery. Previously to the reception, Dr. Montgomery, President of the Medical Club, entertained Dr. Mitchell at dinner.

The Promotion of Medical Inspection in Philadelphia Schools.—Further arrangements for the public meeting on medical inspection of schools that is to be held on December 3rd at the De Lancey School, 1420 Pine Street, Philadelphia, were perfected at a meeting of the Committee on Medical Inspection of Schools of the Public Education Association, under whose auspices the meeting is to be held. Among those present were Dr. Samuel D. Risley, Dr. B. Alexander Randall, Dr. J. H. McKee, Dr. Sina Stratton, Dr. J. Madison Taylor, Dr. H. C. Shurtleff, and Miss Eleanor L. Fleisher. It was announced that the Mayor had consented to preside. The meeting for December 3rd is being arranged as the result of a conference last June at the office of the Director of Health and Charities between Dr. Edward Martin and the Association of Medical School Inspectors, of which Dr. J. H. McKee is president.

Changes in Address of Philadelphia Physicians.—Dr. M. Frank Kirkbride, to 2212 Green Street; Dr. Charles B. Williams, to Pennsylvania Hospital for the Insane, Forty-fourth and Market Streets; Dr. William E. Hughes, to 3945 Chestnut Street; Dr. F. Hurst Maier, to 1900 Chestnut Street; Dr. Eugene Lamparter, to Green Lane, Montgomery county; Dr. Frank H. Dye, to 1830 Girard Avenue; Dr. E. L. Graf, to 5128 Market Street; Dr. G. M. Ferguson, to 706 South Forty-ninth Street; Dr. Wilbur F. Litch, to 1500 Locust Street; Dr. Annie B. Hall, to 1807 Spruce Street; Dr. J. Lawson Cameron, to 1218 North Thirteenth Street; Dr. S. M. Dubin, to 327 Pine Street; Dr. Daniel Longaker, to 1402 North Sixteenth Street; Dr. Edward Martin, to 1506 Locust Street; Dr. James C. Wilson, to 1509 Walnut Street; Dr. Clarence W. Lincoln, to Ridley Park, Delaware county; Dr. John H. Mudgett, to 1601 North Fifteenth Street; Dr. H. C. Wood, Jr., to 124 South Twenty-second Street; Dr. E. J. Stout, to 1534 Master Street.

Philadelphia Post Office Employees Must be Vaccinated.—Under instructions from the Post Office Department at Washington all the employees of the Philadelphia Post Office, including clerks, carriers, and laborers, about 2,000 in number, have been provided with blanks upon which each employee is required to make a report giving the most recent date upon which he was vaccinated, and saying whether or not the operation was successful. When the blanks shall have been returned properly filled out a list of the employees who require vaccination will be compiled, and such members of the post office force will be or-

dered to submit. The employees of the Internal Revenue Department also are being questioned on the vaccination subject. They have received a letter from Dr. Martin, of the Bureau of Charities and Corrections, of Philadelphia, in which they are asked to place themselves on record as to whether or not they have been vaccinated.

Smallpox Now Epidemic in Philadelphia.—The sixty-eight new cases of smallpox included in the official record of Philadelphia's health officer, for the week ending November 21st, seem to be a fulfilment of the prophecy made last September by Dr. Edward Martin, director of the health department, that an epidemic of the disease would occur unless the whole community submitted to vaccination. Just twice as many cases have been reported than for the week ending November 14th. There are now 195 cases under treatment at the Municipal Hospital. Contrary to the usual records the Twenty-eighth Ward does not this time contain the largest number of cases. The Thirty-third Ward heads the list with thirteen cases, the Twenty-eighth Ward following a close second with ten new cases. The mortality for that week was also higher, there having been seven deaths. Had not the vaccine physicians compelled all members of a negro meeting to undergo vaccination, the disease would probably have assumed an endemic form in the locality inhabited by the faith curists, described last week, and known as "The Church of God, and Saints of Christ." From a hygienic standpoint this organization has been a threatening menace to the community of Philadelphia. Not only have they been indirectly responsible for the want of medical attention to sufferers from smallpox, but until recently prevented by the police, they have been going in and out of the sick rooms indiscriminately. Therefore, while the bishop of this society was administering the lore of his creed to 300 of his followers, forty physicians, aided by as many policemen, entered and vaccinated every person in the place to the chagrin and humiliation of the faith curists. A severe epidemic of smallpox is not anticipated by the authorities.

GENERAL

Statement of Mortality in Chicago for the Week Ending November 21, 1903, compared with the preceding week and with the corresponding week of 1902. Death rates computed on estimated mid-year populations of 1,885,000 for 1903 and of 1,820,000 for 1902:

	Nov. 21, 1903.	Nov. 14, 1903.	Nov. 22, 1902.
Total deaths, all causes...	467	484	460
Principal causes of death			
Acute intestinal diseases	15	24	31
Apoplexy	17	16	12
Bright's disease	27	31	20
Bronchitis	12	18	21
Consumption	45	45	37
Cancer	22	26	23
Convulsions	14	9	9
Diphtheria	15	26	23
Heart diseases	53	36	35
Measles	2	1	3
Influenza	1	0	1
Nervous disease	19	31	21
Pneumonia	70	68	79
Scarlet fever	2	2	5
Suicide	4	5	5
Typhoid fever	8	14	9
Violence (other than suicide)	25	30	27
Whooping cough	1	0	1

At Elmira Reformatory, an outbreak of typhoid fever has followed that of diphtheria. An analysis of the water supply is being made.

Typhoid Fever, of which there have been eighteen cases at the New Haven, Conn., county jail, has been traced to the defective plumbing by the board of health after an exhaustive investigation.

Dr. Frank Billings, who, as we reported, was operated upon some time ago at the Michael Reese Hospital in Chicago, has been removed to his home, 35 Twenty-second Street, quite out of danger, it is thought.

Fire in the Northwestern University.—On November 20th a fire gutted the fifth and sixth floors of the medical and dental college of this institution in Chicago, Ill. The damage done by fire, smoke, and water is estimated at \$50,000.

The College of Physicians and Surgeons, of Boston, Mass., an institution founded in 1880, will, it is said, soon become the medical faculty of Brown University of Providence, R. I., John D. Rockefeller having promised to aid in the consolidation.

Yellow Fever in Texas.—Notwithstanding the work of the State authorities and the Marine Hospital service in Texas, yellow fever is raging in that State; eighty-one deaths occurred at Laredo between September 24th and November 10th, and 732 cases have been reported.

The Clarke and Frederick Counties Medical Society was organized with a membership of about fifty in Winchester, Va., on November 11th, with the following officers: President, Dr. W. J. Best, of Brucetown; vice-president, Dr. R. Powell Page, of Joyce; secretary, Dr. S. P. Latane, of Winchester.

Dr. Joseph A. Guthrie, of Norfolk, Va., has returned to his native city after a long cruise as assistant surgeon in the navy, and is recommending that the marshes surrounding the town be filled up, although he states that they are strongly impregnated with the oil of juniper, which prevents the development of plasmodium malarie.

The Clinical Surgical Society of the United States held its first meeting in Baltimore on November 13th, at the Johns Hopkins Hospital, Dr. Brewer, of New York, presiding, and Dr. Mumford as secretary. On the 14th, the society reassembled in Philadelphia. It is still undecided whether to hold two or three meetings annually.

The Lexington Heights (Buffalo, N. Y.) Training School for Nurses graduated the following young women on November 10th: Alice M. Cook, of Thorold, Ont.; Nella D. Snyder, of Branchport, N. Y.; Sue M. Chapin, of Silver Creek, N. Y.; Blanche Wallis, of DuBois, Pa.; Ida M. Burroughs, of Lockport, N. Y., and Winnabeth Sovereign, of Yorkshire, N. Y.

The Fox River Valley Association held its seventy-fifth annual meeting at Aurora, Ill., on November 10th, when the Kane and McHenry county organizations became affiliated with the State society. The officers elected were: President, Dr. Gahagan, of Elgin; vice-president, Dr. F. H. Jenks, of Aurora; secretary and treasurer, Dr. Bell, of Elgin.

The Town of East Haven, Conn., has appointed Dr. Edwin C. M. Hall as health officer to succeed Dr. Holbrook, resigned.

The Norfolk (Va.) Medical Society has declared a war upon irregular and unlicensed practitioners, and a committee has been appointed to make out a list of the suspected.

The Tri-County Medical Association, of Worth, Berrien, and Irwin counties, Ga., has been organized with Dr. J. A. McCrae, of Tifton, as president.

The Western Wisconsin District Medical Society was organized at Eau Claire on November 17th, Dr. Boothby, of Hammond, being elected president.

The St. John's Catholic Hospital, of Helena, Mont., and the Consumptive Hospital, of Denver, Colo., have each benefited to the extent of \$5,000 by the will of the late Henry Klein, of Helena, a wealthy Hebrew.

Vivisection Justified in England.—A jury in the Lord Chief Justice's Court, on November 18th, awarded Dr. Bayliss, of London University College Hospital, £2,000 damages for libel against the Honorable Stephen Coleridge, of the national antivivisection society, who had accused the defendant of torturing a dog, and had the evidence of two hysterical women students from the northern part of Europe.

The Atlanta (Ga.) Medical Society has elected officers for the following year, as follows: President, Dr. Michael Hoke; vice-president, Dr. V. O. Hardin; secretary and treasurer, Dr. E. B. Block; chairman of executive committee, Dr. W. S. Elkin. All physicians of Atlanta have the privileges of the society's library, which contains more than 500 books and forty-seven medical journals, native and foreign.

A New Medical Journal.—A number of physicians of Cincinnati, O., are planning the issue of a new medical journal. The active editors will probably be Dr. F. B. Lyle, Dr. A. G. Drewry, and Dr. Frank Brown, while the following will assist: Dr. George A. Fackler, Dr. Horace Whitacre, Dr. Joseph Eichberg, Dr. J. C. Oliver, Dr. Joseph Ransohoff, Dr. C. R. Holmes, Dr. Withrow, Dr. Langdon, Dr. Greiwe, Dr. Wolfstein, Dr. Mitchell, Dr. Holt, and Dr. Hoppe.

The Dubuque Medical Society, of Iowa, have addressed a protest to the physicians of Iowa against the methods of organization proposed by the American Medical Association, on the grounds that compulsory membership is un-American, that organization should be from below up, instead of from above down, that the "censor of his district" is an offensive naturalization of the walking delegate, that home rule is abrogated, and that the arrangements for a referendum are inefficient. Correspondence on the subject is invited with the committee, Dr. John S. Lewis, Dr. James R. Guthrie, and Dr. I. S. Bigelow.

Harper Hospital, Detroit, Mich., has opened new operating rooms, completely equipped at a cost of \$60,000.

A New Catholic Hospital is to be founded in Orange, N. J., by the Italian residents of that city.

The Holy Ghost Hospital for Incurables at Cambridge, Mass., has received \$1,000 by the will of the late Daniel Mooney, of that town.

Typhoid Fever in Colleges.—Outbreaks of typhoid fever have occurred both at Brown University, Providence, R. I., and at Williams College, Williamstown, Mass.

The St. John Hospital for Incurables will shortly be founded in East Cambridge, Mass., by the will of the late William Turnbull, of St. John, New Brunswick, Canada, who bequeathed \$100,000 for that purpose.

Better Professional Education.—The College of Physicians and Surgeons of the Province of Quebec, Canada, are moving for an extension of the term of medical study to five years, as it has been for some time in the neighboring Province of Ontario.

The New Haven Hospital has received under the will of the late Sarah B. Harrison, sister of ex-Governor Henry B. Harrison, \$30,000 for the establishment of free beds. The university received \$100,000 by the same will.

The New Hospital at Richmond, Ind., to be erected by the generosity of Daniel G. Reid, of New York, who contributed \$60,000, has raised \$30,000 for an endowment fund, of which \$10,000 was contributed by order of the city council.

St. Luke's Hospital, Chicago, Ill., is contemplating the erection of a \$250,000 building for the accommodation of wealthy patients, who may have suites of rooms in which to lodge themselves, their valets, ladies' maids, and other servants. By the profits expected from this innovation, it is hoped to run the rest of the institution without cost to the poorer sufferers.

Improvement of Vital Statistics in the United States.—At the recent meeting of the American Public Health Association held at Washington the committee on vital statistics reported that effective cooperation had been instituted between that association, the Conference of State Boards of Health, the American Medical Association, the United States Census Bureau, and the United States Public Health and Marine Hospital Service for the improvement of the vital statistics of this country. Among the objects sought are the extension of adequate methods of registration, the use of uniform and comparable tables and rates in bulletins and reports, and the improvement of the international classification of causes of death. A pamphlet on Statistical Treatment of Causes of Death has been issued by the United States Census Bureau, requests for which should be addressed to Mr. W. A. King, Chief Statistician for Vital Statistics, Census Bureau. It has special reference to the difficulties encountered in compiling deaths returned from several causes, and asks for the cooperation of the profession in fram-

ing a thoroughly satisfactory method of procedure in such cases.

Mississippi Valley Medical Association.—The thirtieth annual meeting of the Mississippi Valley Medical Association will be held at Cincinnati, O., October 11, 12, 13, 1904. Dr. B. Merrill Ricketts has been elected chairman of the Committee of Arrangements. The following are the officers of the association elected at Memphis: President, Edwin Walker, M. D., of Evansville, Ind.; President-elect, Hugh T. Patrick, M. D., of Chicago, Ill.; first vice-president, Bransford Lewis, M. D., of St. Louis, Mo.; second vice-president, Geo. W. Cale, Jr., M. D., of Springfield, Mo.; secretary, Henry Enos Tuley, M. D., of Louisville, Ky.; assistant secretary, S. C. Stanton, M. D., of Chicago, Ill.; treasurer, Thos. Hunt Stucky, M. D., of Louisville, Ky. The following resolution was offered by Dr. S. P. Collings, of Hot Springs, Ark., at the Memphis meeting:

Whereas, The value of perfect sight and hearing is not fully appreciated by educators, and neglect of the delicate organs of vision and hearing often leads to disease of these structures; therefore, be it

Resolved, That it is the sense of the Mississippi Valley Medical Association that measures be taken by boards of health, boards of education and school authorities, and where possible, legislation secured, looking to the examination of the eyes of all school children, that disease in its incipency may be discovered and corrected.

Henry Enos Tuley, Secretary, 111 West Kentucky Street, Louisville, Ky.

The Senn Prize Essay for 1904.—The Committee on the Senn medal begs leave to call attention to the following conditions governing the competition for this medal for 1904: A gold medal of suitable design is to be conferred on the member of the American Medical Association who shall present the best essay on some surgical subject. The award will be made under the following conditions: (a) The name of the author of each competing essay must be enclosed in a sealed envelope bearing a suitable motto or device, the essay itself bearing the same motto or device. The title of the successful essay and the motto or device is to be read at the session at which the award is made, and the corresponding envelope is to be then and there opened and the name of the successful author announced. (b) All successful essays become the property of the association. (c) The medal shall be conferred and honorable mention made of the two other essays considered worthy of this distinction, at a general meeting of the association. (d) The competition is to be confined to those who, at the time of entering the competition, as well as the time of conferring the medal, shall be members of the American Medical Association. (e) The competition for the medal will be closed on, and no essays received after, March 1, 1904. Communications may be addressed to any member of the committee, which consists of the following: Dr. James H. Dunn, chairman, Minneapolis; Dr. M. L. Harris, 100 State Street, Chicago; Dr. Floyd McRae, Atlanta, Ga.

Pith of Current Literature.

ZENTRALBLATT FUER GYNAEKOLOGIE.

October 17, 1903.

1. Strumectomy as an Emergency Operation in Pregnancy,
By VON FILLENBERG.
2. Unusual Case of Spontaneous Cure of a Vesicocervical
Fistula, By GALLATIA.
3. New Obstetrical Satchel, By DE SEIGNEUX.

1. **Strumectomy During Pregnancy.**—Von Fellenberg reports three cases in which during pregnancy, a prompt removal of the enlarged thyroid gland was demanded, on account of severe dyspnoea and danger of asphyxia. In all the cases, the operation was quickly performed and in all a good result was obtained.

October 24, 1903.

1. Artificial Turning of the Trunk of the Child in Vertex
Presentation, By GOTTSCHALK.
2. New Instrument for Uterine Tamponing,
By FEDOROFF.

1. **Artificial Turning of Child.**—Gottschalk has practised for some years the manœuvre, in cases of deep transverse cephalic presentation and in cases of third and fourth vertex presentations, of bringing about rotation by external manipulation of the foetal head and shoulders. He formerly practised combined internal and external manipulation, but of late he has been equally successful with the external procedure alone. By bringing about an anterior presentation of the occiput by this means, the forceps can be applied in a more favorable foetal position.

ZENTRALBLATT FUER CHIRURGIE.

October 17, 1903.

1. Rubber and Linen Gloves, By GOEPEL.

1. **Rubber and Linen Gloves.**—Goepel says that the annoyance of the easy tearing of rubber gloves and of the permeability of linen gloves can be overcome by wearing the linen gloves over the rubber ones. The closely woven threads of the latter permit the instruments to be well held and prevent sharp instruments from tearing the rubber, and, on the other hand, the rubber gloves prevent the access of germs from the skin to reach the linen gloves. He warmly recommends this method of operating.

BERLINER KLINISCHE WOCHENSCHRIFT.

October 26, 1903.

1. The Nature of Hæmolysins in Human Blood,
By C. MORESCHI.
2. Vocal Fremitus in the Abdomen, By W. ALEXANDER.
3. German South Africa as a Resort for Tuberculous Per-
sons, By J. KATZ.
4. Isolation of Snake Poison Lecithins (*Conclusion*),
By P. KYES.
5. Anæmia Splenica, By S. M. ZYPKIN.

2. **Vocal Fremitus in the Abdomen.**—Alexander combats the views of de Brun and Weber as to the explanation of abdominal vocal fremitus. He has examined many cases clinically and experimentally, and has never been able to demonstrate the phenomenon.

4. **Snake Poison Lecithins.**—Kyes says that various hæmolytic snake poisons possess in general an amboceptor type and are accompanied by a lecithinophilic group, which is responsible for the hæmolysis. The poison of the scorpion seems to be similar, but acts in a weaker way.

5. **Splenic Anæmia.**—Zypkin reports a case in which the symptom-complex was partly that of pernicious anæmia, and partly that of the splenic form of pseudoleucæmia. Oligocythæmia and oligochromæmia were characteristically found. There is a distinct relation between this and myolegenous leucæmia.

DEUTSCHE MEDIZINISCHE WOCHENSCHRIFT.

October 22, 1903.

1. Combined Abdominosacral, Perineal, and Vaginal Ex-
tirpation of High Rectal and Colonic Cancer,
By F. SASSE.
2. Mechanism of Intestinal Strangulation, By WILMS.
3. Perityphlitis, By SCHULZ.
4. Histology of Gastric Mucosa in Pathological Condi-
tions, By M. EINHORN.
5. Ætiology of So-called Rheumatic Tetanus,
By H. RACINE, and H. BRUNS.
6. Operation for Cervical Myomata, By GOTTSCHALK.
7. Intoxication by Salipyrin, By DUMSTREY.
8. Diagnostic Errors in Extrauterine Pregnancy,
By A. SITTNER.

1. **Combined Operation for Rectal Cancer.**—Sasse reports four cases in which rectal and colonic cancers were successfully operated on by a combined abdominal, perineal, and sacral route, while in women the vagina can also be employed. The author does not regard the establishment of a permanent artificial anus as necessary, but it is essential when there is a temporary or severe constipation.

2. **Mechanism of Intestinal Strangulation.**—Wilms believes that the involvement of the distal portion of intestine is due to peristalsis and to the passive stretching of the intestine in consequence of a gradual increase in the intestinal contents. He does not think that the action of the abdominal pressure is the principal factor in determining a strangulation.

3. **Perityphlitis.**—Schulz advises immediate operation in severe cases, in moderate cases always after the second or third attack. He does not give opium in the early stages until a thorough evacuation has been obtained, for which he advises castor oil and enemata.

4. **Histopathology of the Gastric Mucosa.**—Einhorn concludes that the secretory disturbances of the stomach do not depend upon primary changes in the mucosa, but they evoke, after a while, anatomical lesions of a greater or less degree. The diagnosis of gastric cancer can be made at times from the inspection and examination of a small piece of the mucous membrane, and especially when the neoplasm has invaded the epithelial cells of the glandular substance. Therapeutically, an improvement in the patient's general condition must always be sought in cases of functional disturbance, by means of change of

life, sedatives, hydrotherapy, massage, and gymnastics; and secondarily, special methods must be invoked, such as forced feeding, butter, proteids in hyperchlorhydria, and in achylia the carbohydrates.

6. Operation for Cervical Myomata.—Gottschalk has removed a very large myoma from the cervix, of the interstitial and submucous type, without destroying either cervix or uterus. The seat of the growth was obliterated by a maximal inversion of the mucous capsule and by suturing this to the incision in the vaginal portion, and by a dense inner and outer uterine tamponing.

7. Salipyrin Intoxication.—Dumstreya reports three instances in which, immediately after the administration of salipyrin, the patients developed extreme dyspnoea with anginal symptoms, palpitation of the heart and profuse sweating. In all the cases the dose had been fifteen grains.

PRESSE MEDICALE.

October 28, 1903.

Simple Polyuria in the Two First Periods of General Paresis,
By E. MARANDON DE MONTYEL.

Polyuria in General Paresis.—De Montyel, stating that this investigation is a novel one, and was necessarily restricted to the two first stages of the disease on account of the impossibility of getting accurate results from patients in the third stage, proceeds to give the outcome of his study of 54 cases, all males. Polyuria occurs apparently only in drunkards, in syphilitic moderate drinkers, and in sober syphilitics and its frequency diminishes in the order named; it was found only in men between the ages of thirty and forty-six; it is greater in summer than in winter, contrary to the rule in health; curiously enough this is balanced by the fact that perspiration in the paralytic is greater in winter than in summer. Polyuria occurs in one case in six; six times as often in the first stage as in the second; it is stronger in the quiet stage than in the maniacal; it occurs when there is hyperalgesia; it lasts usually two months, never more than five.

October 31, 1903.

Treatment of Syphilis in the Newborn by Means of Soluble Mercurial Injections, By SCHWAB, and LÉVY-BING.

Syphilis in the Newborn.—Schwab and Lévy-Bing give the results in five cases, aged respectively, 1, 6, 13, 1, days, and 3 months, of hereditary syphilis treated by hypodermic injections of an aqueous solution of mercury biniodide. They conclude that the method is without danger, efficacious, rapid, and sure. In grave cases, visceral for instance, intense mercurialization may be rapidly produced. It does not injure the digestive tract, and replaces advantageously inunction, the effects of which are uncertain. One to two milligrammes of the salt and the same quantity of sodium iodide are injected daily for ten days, then an intermission of the same period intervenes before resuming the injections. A Pravaz syringe is used with a very fine needle. The buttocks should be avoided on account of the danger from infection by the fæces.

LYON MEDICAL.

November 1, 1903.

1. Plague, By LORTET.
2. Treatment of Syphilis (*Continued*), By A. GAILLETON.

1. Plague.—Lortet's article is an arraignment of the insufficient protection in Marseilles against the plague, an outbreak of which took place in that city last summer, and contains suggestions concerning disinfection and the destruction of rats.

2. Treatment of Syphilis.—Gailleton continues his article with a consideration of the mercury salts suitable for intramuscular injection, the best syringe, and the methods of sterilization of the solution, syringe, and skin. Solutions should be freshly made. The most powerful of the insoluble salts of mercury is calomel, one injection weekly of which is sufficient; it should not be used in debilitated subjects, and is very painful. Nodosities are common. It is superior to potassium iodide in diagnosing the nature of a neoplasm, for the latter stimulates all malignant growths. Calomel may produce diarrhoea, stomatitis, and severe pain lasting several days. (*To be continued*).

REVISTA DE MEDICINA Y CIRUGIA PRACTICAS.

October 21 and 28, 1903.

1. Is Ozena Curable? By C. COMPAIRED.

1. Ozena.—Compaired gives a partial answer to the question as to the curability of ozena, in a report of twenty-seven cases treated by injection of paraffin into the mucosa of the inferior turbinated bone. Of the number so treated, thirteen are quoted as cured, in the sense of absence of odor and disappearance of crusts; nine improved and five unresponsive to treatment. The permanency of the cures can only be established by a further lapse of time, though symptoms have been absent, in some of the author's cases, for a period of ten months. The writer's experience has led him to the belief that this method of treatment is not applicable to all stages of the disease; as extreme atrophy and friability preclude the possibility of sufficient distention of the mucosa for the formation of the artificial turbinates. In some instances, one injection into each inferior turbinate sufficed to effect a cure, while several injections wrought but a slight improvement in others; the degree of gain depending upon the amount of atrophy, especially of the mucosa. In Compaired's experience, postoperative palpebral oedema and tumefaction of the cheeks point to a more complete and durable cure. These symptoms are held to be without danger to the patient. From the results thus far obtained, the author concludes that, up to the present time, no method of treatment has been found which gives such prompt and certain results in this most obstinate affection and which is so free from inconvenience to the patient as submucosal injections of paraffin.

RIFORMA MEDICA.

August 19, 1903.

1. Radioscopy of the Cardiovascular Bundle in Health and Disease, By G. ARCARISI.
2. Specific Toxic Serums in the Suprarenal Capsule. Preliminary Note, By M. LEVI DELLA VIDA.

3. On Primary Tuberculosis of the Mammary Gland (*Concluded*),
By R. CAMINITI.
4. Contribution to the Surgery of the Biliary Tract (*Concluded*),
By G. MARIOTTI.

1. Skiagraphy of the Heart and Great Vessels.

—Arcarisi has studied the skiagraphic outlines of the whole mass of cardiovascular structures in health and disease at various ages. He finds that the outline of the shadow projected on the skiagraphic screen by the cardiac and vascular structures occupying the centre of the thorax varies according to the conditions of these structures. In all the cases observed, both in young and old subjects, the outline on the right side was indented and ascended directly upward, but did not pulsate. This outline was produced partly by the descending vena cava. The left margin of the shadow was directed obliquely inward from the apex, approached the sternal margin, and then, from about the level of the second space, curved outward in a pulsating semicircle. This gibbosity was formed by two vessels which exactly overlay each other and thus formed one shadow; namely, the left portion of the arch of the aorta and the pulmonary artery. In cases in which the shadow of the cardiovascular bundle is elongated somewhat, as frequently happens in old persons, this outline on the left side is a double projection instead of a single one, thus showing the two constituents separately. The bundle increases in length and width as the age of the patient advances. In children it is comparatively short, because the abdomen is so much more developed in proportion to the chest. The presence of an increased intraabdominal pressure shortens this bundle, and the presence of a pleural effusion, etc., alters its shape. In cases of cardiopneumonia, the outline is markedly changed in character and the bundle is displaced downward. It grows longer and its diameter at the base of the heart is slightly increased, and at the left side there are two pulsating places instead of one. But the most important characteristic of the skiagraphic picture in cardiopneumonia (Rummo's disease) is the fact that the heart changes its position markedly when the patient stands up after having been examined in the recumbent position. Aneurysms and tumors of the mediastinum also markedly alter the outline of the normal vascular bundle, and so skiagraphy proves a useful adjunct to diagnosis.

2. **Cytotoxines of the Suprarenals.**—Della Vida has obtained two distinct cytotoxines for the suprarenal gland; one affecting the medullary portion, the other the cortical portion of the organ in question. His experiments were based on the theory that these two portions of the gland had distinct functions, and that the cytotoxines of each must be distinct. He prepared extracts from each portion of the gland taken from one set of animals and injected them into another species of animals. The serum of these last mentioned animals was cytotoxic for the suprarenal capsules of normal animals of the first species. In addition, it was also cytotoxic *in vitro* when allowed to act on suprarenal capsules removed from the first species. These two kinds of serums, one from the medullary, the other from the cortical por-

tion of the suprarenal gland, each prepared in the manner outlined, showed a cytotoxic property toward the corresponding portion of the suprarenal *in vitro*. In living animals he was able to prove only in the case of the medullary serum an action on the corresponding portion of the suprarenal. Both serums had a moderate hæmolytic power which was greater in the case of the cortical serum.

ROUSSKY VRATCH

September 13, 1903

1. The Relation of the Chemical Constitution of Remedies to Their Therapeutic Action,
By M. J. BREITMANN.
2. The Differentiation of Human Blood from the Blood of Lower Animals in Medico-Legal Practice,
By P. N. DIATROPTOFF.
4. On the Arrangement of Nissl's Bodies in Some Cells of the Spinal Cord,
By A. A. PIEVNITSKY.
5. The Bacteriological Diagnosis of Plague in Cadavers (*To be concluded*),
By S. I. GOLDBERG-ZLATOGOROFF.

1. **Relation of Chemical Composition to Therapeutic Effect.**—Breitmann emphasizes the close relationship between the chemical constitution and the therapeutic action of most of our new so-called synthetic remedies. He thinks that this is so important that the physician should never prescribe a new remedy without being acquainted with the chemical constitution thereof, and without knowing the action of each of their constituents. He cites a number of examples which show the interdependence of chemical constitution and therapeutic effect. The newer remedies, excluding those that are purely products of enterprising advertisers, are, in his opinion, the most distinct examples of this dependence. They show the relationship between the pharmacological effect of a drug and (1) its membership in the same chemical group; (2) the presence of certain combinations in the remedy, e. g., hydroxyl, carboxyls, alkyls, basic substances, nitrous amido groups, aldehydes, acid radicals, etc.; (3) the position of these groups in relation to the fundamental compound, i. e., the ortho, para, or meta combinations; (4) the presence of a double or triple compound, etc.

2. **Biological Method of Examining Blood Stains.**—Diatroptoff describes the method of Wasserman and Schutze for the medicolegal investigation of blood stains, which he employed in a criminal case. He first injected some sterile human blood serum, obtained from the bleeding cords of placenta, into a series of rabbits. After repeated injections of this human blood the rabbits were killed and their blood serum was added to a physiological salt solution of the stains in question, four months after the murder, the result being that a precipitate occurred, due to the presence in the rabbit's blood of substances which precipitate human blood exclusively, i. e., specific precipitins. These are made in the blood of the rabbit on inoculating this animal with human blood. Control test tubes, to which the serum of normal rabbits was added, did not give any cloudy precipitate with the salt solution of the stains. The jury and the judge were taken to

the laboratory and the reaction was shown to them, half an hour after the mixture of the stain solution and the prepared serum was made. The author notes the important fact that if the tubes are kept longer, for a day and a half, the reaction becomes untrustworthy, as there is a precipitate which forms in that time, both in the tubes with the prepared serum and in those with ordinary rabbit's serum. This cloudiness and precipitate in such cases are due not to a real reaction, but to the growth of bacteria. If it is desired to preserve the reaction for some time, a drop or two of chloroform must be added to the test tube at the very outset of the work.

3. Peculiar Arrangement of Nissl's Bodies.—Pievnitsky calls attention to the striped appearance of certain cells of the anterior horns of the spinal cord, which are due to the arrangement of Nissl's bodies in the form of chains. He obtained these appearances in the spinal cords of large animals (oxen), staining with Nissl's method or with Chentzinsky's method, after fixation in formalin. These stripes or threads are quite thick, consist of some spongy material and stain faintly if the animal has died shortly before the preparation was made. The threads have a wavy course and in thin sections they are cut into a series of broken sections. These stripes go from one end, or pole, of the cell to the other and go around the nucleus, so that in certain sections one can see how they pass over the nucleus. This disposition of the chromatophile substance is seen only in sagittal or frontal sections of the spinal cord, while transverse sections show them only in a few cells on the sides of the horns. As Boethe's bundles pass between the Nissl's bodies, it is possible that these are so arranged in stripes because they are insulators for Boethe's bundles as they pass through the cell, and therefore these bundles chiefly take the direction of the axis of the spinal cord.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

November 14, 1903.

1. The Relation of the Public School to the Seminary and College as to Psychoses, By F. SAVARY PEARCE.
2. Best Method of Counteracting Psychoses Due to the Strain and Stress Incident to Our Public School Methods, By WILLIAM JAMES HERDMAN.
3. The Voluntary and Involuntary Brain Centres Controlling the Ocular Muscles, By G. C. SAVAGE.
4. Retroversion of the Uterus. A Clinical Study of the Complications, Symptoms, and Treatment, By L. H. DUNNING.
5. Retrodisplacements of the Uterus. A Further Report on Operations on the Uterosacral and Round Ligaments, By J. WESLEY BOVEE.
6. Exercise as a Mode of Treating Diseases of the Heart, By N. S. DAVIS, JR.
7. The Future of Preventive Medicine, By H. A. MOODY.
8. Special Influences of High Altitudes on the Nose and Throat, By S. EDWIN SOLLY.
9. Arrested Tuberculosis. Subsequent Histories of Seventy-nine Arrested Cases Treated at the Sharon Sanatorium from 1891 to 1892, By VINCENT Y. BOWDITCH.
10. The Red Light Treatment of Smallpox, By NIELS R. FINSEN.

2. Psychoses Due to Our School Methods.—Herdman offers the following suggestions as a contribution to the solution of the problem of how best to free our school system from its present defects which lead to the development of various psychoses in children: (1) A careful medical inspection of school children at the beginning of their school life and at stated intervals thereafter, covering both their physical and mental capacities. (2) All teachers should be well instructed in the physiology and psychology of the child and in the principles of school hygiene. (3) School buildings and their environments should be made to comply with all the requirements of modern school hygiene, as to light, pure air, temperature, seating, decorations, play ground facilities, etc. (4) The curriculum should be so flexible as to allow more opportunity for the exercise of the individual judgment of the teacher, as to the best method to adopt for each child in order to secure for it the greatest educational value, and the curriculum should include facilities for appealing to the mental faculties along every sensory pathway, among which facilities I would mention nature study, rational kindergarten, manual training and physical exercise. (5) The number of pupils assigned to any one teacher should be only such as she can care for to the best advantage. Time should be allowed the teacher for a careful study of the physical and mental needs of each pupil. (6) A closer relationship between the parent and teacher, with a view of securing the end sought—the highest and most useful development of the child. (7) The removal, as far as possible, of all conditions within or without the school room that interfere with the accomplishment of this purpose.

4. Retroversion of the Uterus.—Dunning, from a study of 112 personal cases, reaches the following (abbreviated) conclusions: (1) Simple uncomplicated retroversion of the uterus gives rise to but few symptoms, the chief of which are backache and bearing-down pain. Uncomplicated cases constitute but 7.01 per cent. of the cases studied. Five uncomplicated cases were treated by the non-operative plan, three were cured and two greatly relieved. (2) The severity of the symptoms and the prospect of cure depend largely on the number and character of the complications. (3) The most common complications are: Prolapsus of one or both ovaries, 42 per cent.; endometritis, 28 per cent.; laceration of the cervix, 24 per cent. The most common and almost universal symptom is pain, 74 per cent. In but 21 per cent. of cases did habitual constipation exist. Various degrees and invalidism existed in all complicated cases. (4) In the treatment of the simpler and less complicated cases the non-operative treatment yields satisfactory results. Recent cases, especially those following labor, improve rapidly under this form of treatment. (5) Displacements of long duration, accompanied by the more serious complications, are not cured by this method and the benefits resulting are scarcely sufficient to justify the effort. (6) Operative methods in the severest forms of displacement and complication are attended by a large per centage of cures, and should be employed in preference to all other means. (7) The danger attending the operative method of treatment is very small.

6. Exercise in the Treatment of Heart Disease.—Davis lays down the three following rules as essential in the treatment of heart disease by exercise: (1) The muscular effort must be slight, but numerous large muscles must be used. (2) Respiration must be deepened but not hurried. (3) The exercise must be graduated. The author does not advocate the treatment by exercise to the exclusion of drugs. It is a form of treatment that should not be neglected and one which is essential in many cases.

10. Red-light in the Treatment of Smallpox.—Finsen's paper is an answer to one by Schamberg in which the latter declared that the red-light treatment of smallpox was of no avail. Finsen declares that Schamberg does not appreciate either the theory or the practice of the red-light treatment, and that therefore his conclusions on the subject are totally incorrect.

BOSTON MEDICAL AND SURGICAL JOURNAL.

November 19, 1903.

1. Observations of the Effect of Catheter Drainage on the Function of the Kidneys in Interstitial Nephritis and Pyelonephritis, By ARTHUR TRACY CABOT.
2. Unclean Milk, Bovine Tuberculosis and the Tuberculin Test—Their Relation to the Public Health, By E. R. LARNED.

1. Catheter Drainage and Its Relation to Kidney Function.—Cabot in his paper considers the effect on kidney function of reducing the internal pressure in the kidneys. His studies have been based on observations made on old men suffering from urinary obstruction due to hypertrophy of the prostate. Enlargement of the prostate and chronic interstitial nephritis often go hand in hand. Two theories have been advanced to explain this relation: (1) The nephritis and hypertrophy of the prostate are held to be due to a general arteriosclerosis. (2) The condition of the kidneys is held to be secondary to the enlarged prostate and due directly to obstruction in the flow of urine. The author considers that this latter explanation is the true one. He explains as follows the mechanism by which the internal pressure in the kidneys is raised. The enlarged prostate causes dilatation of the bladder. The orifices of the ureters gradually become insufficient and the urine is backed up until it leads to dilatation of the ureters and pelves of the kidneys. We are justified in believing that the pressure extends through the uriniferous tubules into the Malpighian bodies. The consequent degeneration of the kidneys is aided by infection, which will inevitably occur, due to the catheter life led by the class of patients under consideration. Clinically the author has observed that if continuous bladder drainage is resorted to, in this case of patients, two things will occur: (1) The total quantity of urine will be decreased to near the normal; and (2) the total amount of solids excreted, as shown by the specific gravity of the urine, will be increased and approach the normal. Six cases from the author's private practice are reported to illustrate the benefits to be derived from the use of bladder drainage by means of a tied-in catheter. The author concludes his article

as follows: "First. The relief of tension in kidneys that owing to long obstruction are exhibiting the clinical phenomena of interstitial nephritis usually brings about a return of normal function. From this, it would appear that the renal condition is directly due to the obstruction and increased tension. Second. It seems probable that in cases of dilated ureters, permitting regurgitation of urine from the bladder back into the pelves of the kidneys, a long drainage of the bladder will permit such a shrinkage of the ureters and ureteral orifices as to restore the normal valvular action of the ureters and the back flow of the urine will thus be stopped.

2. Unclean Milk.—Larned discusses the importance of pure milk on the health of the community. The following is a summary of his opinions and observations: (1) All milk should be "pasteurized" at the dairy. It should not contain any mucus, pus, or pathogenic bacteria. It should not contain more than 88 per cent. water and not less than 12 per cent. of total solids, of which 3 per cent. should be butter fat. (2) No chemical or other preservatives should be added to milk. No thickening or coloring matter should be added for the sake of improving the appearance of the milk. (3) The importance of a routine examination of milk put on sale is shown by the investigations of Lestes, who found that fully 80 per cent. of samples examined by him represented milk unfit for use. (4) The death rate of infants under two years of age is from 30 to 50 per cent. and is largely due to poor or contaminated milk. (5) The efficacy of good milk laws rigidly enforced is well shown by the results obtained in Chicago, in 1895. Before the milk laws were enforced 60 per cent. of the samples examined showed milk of inferior quality. A few weeks after enforcing the milk laws only five per cent. of the samples examined fell below the fixed standard.

AMERICAN MEDICINE.

November 21, 1903.

1. The Treatment of Surgical Shock by Adrenalin, By EDWARD MARTIN, and M. E. PENNINGTON.
2. Nine Cases of Resection of the Intestine, By GEORGE TULLY VAUGHAN.
3. A Unique Case: Molluscum Fibrosum of the Rectum in a Patient with the Typical Skin Lesion, By A. B. COOKE.
4. Growth and Development of Children in Colorado, By CHARLES F. GARDINER, and HENRY W. HOAGLAND.
5. The Use and Abuse of Fresh Air and Overfeeding in Tuberculosis, By W. H. PRIOLEAU.
6. A Consideration of General Anæsthesia with a Presentation of Instruments, By FREDERIC GRIFFITH.
7. The Influence of the University of Maryland on Medical Education, By JOHN C. HEMMETER.

2. Resection of the Intestine.—Vaughan, when possible, prefers the Connell suture for intestinal anastomosis. If time presses, the Murphy button is to be preferred. Of the nine cases reported by the author five recovered and four died. The paper considers briefly the mortality statistics of various operators, which vary from 25 to 74 per cent. of the total number of cases

subjected to resection. The author concludes his paper by recording in detail the histories of the nine cases he has operated upon.

5. Tuberculosis.—Prioleau's advice regarding the treatment of tuberculous patients does not differ materially from that now so frequently given and based on the fresh air and good food theory of treatment. He lays stress, however, on the necessity of not abusing patients in misguided attempts to keep them in the open air if they cannot be made comfortably warm. With regard to feeding the tuberculous he cautions against over-feeding. "A tubercular patient should never know hunger, but he should be allowed the privilege of an appetite." The food that causes the least harm when eaten to excess is the nitrogenous. Next in order of harmlessness are the carbohydrates, while the author considers the starches as the most injurious of all foods if taken in excessive quantities.

MEDICAL RECORD.

November 21, 1903.

1. Traumatic Locomotor Ataxia,
By ALLAN McLANE HAMILTON.
2. Intravenous Injections of Colloidal Silver in the Treatment of Erysipelas,
By WARREN COLEMAN.
3. Chronic Cyanosis of the Extremities Associated with Polycythæmia and Splenomegaly,
By JOSEPH COLLINS.
4. The Prognosis and Treatment of Chronic Deafness,
By PHILIP D. KERRISON.
5. Internal Administration of Ichthyol in Pulmonary Affections,
By MAURICE ROSENBERG.
6. An Extreme Case of Bradycardia, By L. E. NORFLEET.

1. Traumatic Locomotor Ataxia.—Hamilton uses the term traumatic locomotor ataxia to designate certain rare cases resembling clinically true tabes spinalis, but which are not, as these latter always are, associated with actual degenerative lesions of the posterior columns. The author recognizes the fact that traumatism is capable of lighting up a latent syphilis and leading eventually to a true spinal tabes, but it is not to this kind of cases that he wishes to call attention. The author reports three cases in order to make his position clear. In none was there a history of syphilis, or signs of syphilis. In all three of the cases recorded there had been more or less severe spinal injury, and in all three were exhibited symptoms which greatly resembled those of true tabes. In traumatic locomotor ataxia there are, however, certain distinguishing features. The disease manifests itself rapidly and advances irregularly, the preataxic stage being short. The knee jerk may be lost, but the author has never observed lost pupillary reflex, or optic nerve atrophy, or neuritis. One of the striking and suggestive differences is found in the gait, which is far more disorderly in locomotor ataxia after trauma than in tabes of organic origin, in which there is usually a syphilitic basis.

3. Chronic Cyanosis of the Extremities.—Collins has collected from the literature records of eleven or twelve cases of that peculiar symptom-group to which Osler has recently called the attention of the profession. Collins adds to this

list one new case and possibly two. He also reviews the greater number of the cases already recorded. The first case reported by the author conforms very closely with the cases reported by Osler and Cabot. The blood count was fairly characteristic. Hæmoglobin, 110 per cent.; erythrocytes, 9,821,000; leucocytes, 17,800. The subjective symptoms were (1) pain of a neuralgic character in the left side and less often in the back of the head. (2) Vertigo, occurring paroxysmally and sensations of syncope. (3) Occasional attacks of vomiting and continuous constipation. (4) Myasthenia during the cold weather. The objective symptoms were: (1) Acrocyanosis; (2) polycythæmia; (3) tachycardia, and (4) gigantic enlargement of the spleen. From the consideration of all the cases so far reported, the author is inclined to believe that the alterations in the spleen will later be shown to be an essential accompaniment of the symptom-complex under discussion.

4. The Prognosis and Treatment of Chronic Deafness.—Kerrison, after discussing the causes and the treatment of the causes that lead to chronic deafness, summarizes his views in the following conclusions: (1) There are certain cases of advanced catarrhal deafness—even among those in which no evidence of serious labyrinthine involvement can be found—which do not respond to treatment. (2) In the large majority of cases the power of audition can be distinctly improved. (3) In the early stages of catarrhal, or tympanic, deafness, the majority of cases are susceptible of practical and complete cure. (4) In advanced stages of catarrhal deafness rational treatment often results in an improvement, which adds greatly to the patient's enjoyment of life, though the normal hearing power may never be regained. (5) Where but slight improvement of hearing is accomplished, the result of treatment is often of value to the patient in arresting a process which might otherwise lead to very marked or total deafness.

6. Bradycardia.—Norfleet reports a case of bradycardia in which the following were the essential features: A man, sixty-nine years of age, habitually had an intermittent pulse, which averaged in frequency 45 beats to the minute. This patient was first seen by Norfleet during an attack of sickness characterized by an intermittent pulse, which averaged 8 to 9 beats per minute for twenty-four hours; by retention of consciousness during the greater part of this time; by convulsive seizures strictly localized to the head and neck. Alcohol, belladonna, and strophanthus were administered and seemed to do harm. The patient markedly improved on morphine, nitroglycerin, and caffeine. Eventually the patient recovered and the pulse became regular and varied between 74 and 90 beats to the minute.

MEDICAL NEWS

November 21, 1903.

1. Experiments to Determine the Value of Formalin in Infected Wounds of the Eye,

By J. H. CLAIBORNE, and EDWARD B. COBURN.

2. "The Heart Cure;" Its Terminology, Purposes and Achievements, Including the *Ætiology* of Fatty Degeneration, By HOMER WAKEFIELD.
3. The Relation of Mild Types of Diphtheria to the Public Health, By THOMAS W. SALMON.
4. Chronic Villous Arthritis, with Special Reference to Its *Ætiology* and Pathology (*Continued*), By CHARLES F. PAINTER, and WILLIAM G. ERVING.
5. Eclampsia Hæmorrhagica. Report of a Case, By RALPH WALDO LOBENSTINE.
6. Who May Benefit by Altitude Treatment? By J. N. HALL.

1. **Formalin in Infected Wounds of the Eye.**—Claiborne and Coburn draw these conclusions from their experiments on rabbits: (1) Formalin, 1 in 500, may be injected into the vitreous of rabbits without producing more than momentary disturbance of the eye. (2) It is possible to cause panophthalmitis and consequent destruction of the eyes of rabbits by injecting three minims of a turbid solution of streptococci into the vitreous. (3) It is possible to produce the same result by infection in the ciliary region caused by penetrating wounds with infected pointed instruments. (4) Infections of the vitreous and ciliary region do not necessarily cause destruction of the eye. At times the infected eye recovers spontaneously, the inflammatory symptoms gradually subsiding. (5) Formalin, 1 in 1,000, when injected into the vitreous, exerts no influence on streptococcus infection of the vitreous. (6) The results of these experiments warrant the treatment of commencing infections of the eye by injections into the capsule of Tenon of 1 in 1,000 or even 1 in 500 formalin solution.

2. **"The Heart Cure."**—Wakefield devotes his paper to his method of administering what on the continent of Europe is called the "Heart Cure," and what in this country goes, mistakenly, by the name of the "Nauheim treatment" or the "Schott Methods." The author asserts his belief that if the method he recommends becomes generally adopted the mortality from heart disease will be reduced 50 per cent.

3. **Mild Types of Diphtheria.**—Salmon calls attention to the fact that, during epidemics of diphtheria, there is usually an increase in the prevalence of simple sore throats. Many of these sore throats are due to the diphtheria bacillus and should be recognized as a menace to the community. Since health laws are made by lay members of the community, and since it is impossible to convince the ordinary layman that, so far as the community is concerned, there is no difference between these two classes of cases, the author proposes that some such term as "catarrhal diphtheria" be used to designate the nonmembranous forms of the disease. If this were done, the author believes, it would soon be possible to educate the public up to the idea of regarding these two conditions much in the light in which it now looks upon variola and varioloid. If this could be done it would be possible to have health laws passed for the control of the mild, as well as the severe, forms of diphtheria.

LANCET.

November 7, 1903.

1. Medicine and Science in the Modern University, By C. S. SHERRINGTON.
2. The Bradshaw Lecture: Some Observations on Tuberculosis of the Nervous System, By E. F. TREVELYAN.
3. The Relations of Ophthalmology to General Medicine and Surgery and to Public Health, By J. TWEEDY.
4. Some Points in the Operative Treatment of Tuberculous Disease of the Knee Joint, By K. W. MONSARRAT.
5. The Borderlands of Diphtheria and Scarlet Fever, By H. E. J. BISS.
6. An Obscure Case of Intestinal Obstruction Due to An Obturator Hernia; Laparotomy; Enterectomy; Death in Twenty-seven Hours from Cardiac Syncope and Peritonitis, By J. R. LUNN.
7. A Case of Retroperitoneal Pelvic Sarcoma, By J. McLACHLAN.
8. On the Value of Aspirin in Acute Rheumatism, By E. MACKEY.
9. The Prevention of the Recurrence of Nasal Polypi, By E. S. YONGE.
10. On the Nature of Curschmann's Spirals, By E. E. LASLETT.
11. Notes on a Case of Chronic Ulcer of the Stomach; Excision of Ulcer; Posterior Gastroenterostomy; Cholecystotomy, By W. MCG. YOUNG.

1 and 3. Introductory Addresses.

2. (See abstract of *British Medical Journal* for November 7, 1903, in this number of the *Journal*).

4. **Tuberculosis of the Knee.**—Monsarrat calls attention to the great importance of the early recognition of tuberculous foci in the neighborhood of the lower epiphysis of the femur and the great value of early surgical intervention. Such a focus should be dealt with as soon as the diagnosis is clear without any temporizing or treatment by rest, for the reasons that it is hard to say how near to the joint the disease has encroached, and the focus is, as a rule, accessible and can be thoroughly dealt with. The recognition of tuberculous epiphyseitis is simple: the symptoms being enlargement of the inner part of the femoral extremity with swelling of the overlying soft parts; dull aching pain; tenderness on handling or percussing the epiphysis; and normal distinctness of the parapatellar depressions. Passive movement is unattended by pain. Anatomically the most important point in operating is the outline and limits of the synovial membrane. In extension the lateral reflection leaves uncovered the greater part of the lateral and posterior aspect of the femoral condyle both externally and internally. In such a case of tuberculous epiphyseitis operated on by the author the child recovered with a sound knee. Of eleven cases of tuberculosis of the knee joint where the joint was opened and eversion or excision performed, recovery took place in all but one, in which septic infection took place and the leg had to be amputated. Asepsis is all important, and a knee joint the subject of mixed infection is practically doomed. What is aimed at is, first, ankylosis of the joint. In five cases there was no flexion; in

three others it occurred, but was corrected. Where movement is sought for there is a risk of permanent flexion, pain, and troublesome sinuses. Indications for operative intervention are as follows: (1) Cases of tuberculous foci in the neighborhood of the lower epiphysis of the femur should be operated on as soon as the diagnosis is established. (2) Cases of joint disease by extension from the femur should be operated on as soon as possible if this extension is recent, and if not recent then when the disease does not definitely retrograde after about two months' fixation of the joint. (3) Cases of primary synovial disease should be operated on when after about three months of rest no distinct improvement has taken place.

5. **Diphtheria and Scarlet Fever.**—Biss states that cases of diphtheria, scarlet fever, and amygdalitis shade into one another, and that in these borderlands of the three diseases it is sometimes impossible to say definitely under which head a given case comes. "The principle of relativity obtains in a very striking degree in the knowledge possessed with regard to scarlet fever, diphtheria, and amygdalitis, and it is a fatal error to suppose that anything approaching absolution can ever prevail from the inherent nature and interdependence of these morbid states. . . . No different characters of these morbid conditions are mutually exclusive." The presence of the diphtheria bacillus furnishes no criterion. Besides being present in a diphtheria throat the bacillus may exist in an otherwise normal throat or in a throat which exhibits pathological changes quite unlike those of diphtheria, or even in atypical scarlet fever throat. And no specific micro-organism has as yet been found to be the cause of scarlet fever or simple amygdalitis.

9. **Nasal Polypi.**—Yonge tells us that nasal polypi tend to return so long as any polypoid tissue is left, so that the removal of all such residual tissue which may be visible with forceps or snare is imperative. When polypi are few in number, are of long standing, and are not complicated by sinus suppuration, treatment with the snare will often effect a cure. In these instances the initial bone lesion may be presumed to have subsided. More commonly, especially if the growths are numerous and a radical cure is wished for, it will be necessary, after removing all visible polypi, to expose the parts from which they grew and to cut away the diseased tissues. This will probably involve, as a preliminary, the removal of a considerable portion of the middle turbinal. The author removes it with Luc's flat nasal forceps under cocaine anaesthesia. After drying the parts, the exposed region can be examined and polypoid remnants removed with the same forceps or with a ring knife. In severe cases of recurrent multiple polypi, a more severe operation under general anaesthesia must be done. The essential part of the operation is the thorough scraping of the lateral mass of the ethmoid with a large ring knife. Scraping is continued until all friable tissue is removed. The field of operation is a perilous one from its close vicinity to the cribriform plate, but the author's experience has been very encouraging.

10. **Curschmann's Spirals.**—Laslett concludes that the spirals present in the sputum of asthmatic persons are not due to a twisting movement given to a mass of mucus in one of the bronchial tubes, but that these structures are in reality casts of the smaller bronchial branches similar in nature to the casts in true plastic bronchitis. In support of this theory he calls attention to the following points: (1) Fibrinous casts frequently show spiral terminations; (2) these terminal spirals are identical with true Curschmann's spirals; (3) the spirals owe their peculiar structure largely to the greater number of cells present; and (4) some of the spirals terminate in two equal branches of smaller diameter than the parent stem.

BRITISH MEDICAL JOURNAL

November 7, 1903.

1. Science and Medicine in the Modern University,
By C. S. SHERRINGTON.
2. The Master Word in Medicine,
By W. OSLER.
3. The Bradshaw Lecture on Tuberculosis of the Nervous System,
By E. F. TREVELYAN.
4. The Institutional Treatment of Inebriety,
By SIR W. J. COLLINS.
5. The Overlaying of Infants,
By W. W. WESTCOTT.
6. Case of Puerperal Septicæmia Treated with Antistreptococcus Serum; Recovery,
By W. J. CAIE.
7. Case of Puerperal Septicæmia Treated with Antistreptococcus Serum,
By R. JONES.
8. Puerperal Eclampsia Before Delivery,
By J. LITHGOW.
9. The Treatment of Eclampsia by Hypodermic Injections,
By W. B. MAYNE.

1 and 2.—Addresses delivered at the opening of the new laboratories of the University of Toronto.

3. **Tuberculosis of the Nervous System.**—Trevelyan states that the various forms of tuberculosis of the nervous system consist of tuberculosis of the dura mater, tuberculous meningitis in its more general and limited forms, tuberculous masses in the brain and cord, and a possible miliary tuberculosis of the brain itself. A complete examination almost invariably reveals an older tuberculous focus somewhere else in the body. The actual infecting focus may be small and easily overlooked, and the oldest lesion is not necessarily the infecting one. A direct infection through the nose can occur. Middle-ear disease is often tuberculous and may give rise to infection of the brain and meninges. Experimentally, it is very difficult to infect the brain and meninges through the accessory cavities. The author's figures are based on a study of 114 fatal cases of tuberculosis of the nervous system. In ten there was obvious ear disease. In four cases a general tuberculous meningitis followed spinal caries. The lungs were normal in twenty-eight cases, a miliary tuberculosis being noted in fifty-four. Joints and bones were affected in twenty-three cases, the kidney in four, the generative organs in two, and the peritonæum in eight. In eight cases tuberculous meningitis occurred shortly after an operation. The bacilli travel from the infecting focus to the meninges or brain by way of the blood or lymphatic vessels. An important

aid in diagnosis is furnished by lumbar puncture, yet in five cases of tuberculous meningitis, tubercle bacilli were not found in the sediment of the cerebrospinal fluid. The points of importance are the presence of tubercle bacilli and lymphocytes in the sediment, and the results of inoculation tests. The cryoscopic and permeability tests are of little value. The prognosis in tuberculous meningitis is practically hopeless, although remarkable recoveries have been reported in cases where tubercle bacilli had been found in the spinal fluid. Spinal puncture is of quite doubtful utility as a mode of treatment.

5. Overlaying.—Westcott calls attention to the shamefully high death rate from the overlaying of infants in London. England excels all other countries in the proportion of deaths from this cause. In the last ten years there were 15,000 overlain infants in England and Wales. The mortality diminishes with the age of the infant until at a year old the risk of sleeping in bed with the mother is but trifling. Many cases attributed to overlaying are due to natural causes. An infant may die of gradual suffocation under the bed clothes without external signs of injury. Some overlain bodies show undoubted marks of pressure (*e. g.*, a flattened nose), apart from the well known signs of death from suffocation—blush lips, livid skin, flexed limbs, clenched hands, froth in mouth and nose, etc. In some cases the tongue is protruded and there are ecchymoses on the conjunctivæ and eyelids. Post mortem examination shows the blood to be dark and fluid, the lungs engorged and œdematous, minute petechiæ on the serous surfaces, and a curious cinnabar coloring of the tracheal and laryngeal mucous membrane. Intoxication of the parents is the common cause of overlaying.

It is impossible to secure conviction for the manslaughter of infants by overlaying at the present time in England.

6 and 7. Antistreptococcus Serum in Septicæmia.—Caie and Jones report two cases of puerperal septicæmia successfully treated with anti-streptococcus serum. Each injection of serum caused a fall in temperature and an improvement in the general condition, but repeated doses were required to combat the septic process. In Caie's case three small metastatic skin abscesses appeared one week after the injections were stopped; both left ulcers which took months to heal and retarded the progress of convalescence.

8 and 9. Eclampsia.—Lithgow reports two cases of puerperal eclampsia, in both of which the convulsions came on before the birth of the child. In both the urine was scanty and albuminous. The uterus was emptied in both, the child being saved in the second case, where the mother was in labor when the fits came on.

Mayne reports two cases of eclampsia in which hypodermic administration of morphine promptly checked the convulsions. Only one half grain was used in each case.

MISCELLANEOUS.

Actinomycosis of the Liver.—Auvray (*Revue de chirurgie*, July 15th) has been able to find the

records of only 31 cases. This parasitic disease, in human beings, is usually of vegetable origin, the germ entering through an opening in the skin or the mucous membrane, especially the mucous membrane of the intestine or of the respiratory apparatus. The disease may be primary or secondary, the latter being the more frequent.

Secondary actinomycosis may be due to continuous propagation or to infection at a distance from the primary focus. The primary lesion is most frequently in the cæcum, the appendix, and the contiguous cellular tissue, and may extend to the liver directly or through the medium of the retro-cæcal cellular tissue and the cellular covering of the kidney.

Primary actinomycosis may result from the entrance of the germ through the skin or mucous membrane, whence it enters the veins or lymphatics, which carry it to the right heart, the lungs, the left heart and thence to the liver; or it may be received by the vena porta from the intestinal surface and carried directly to the liver.

The only pathological expression of actinomycosis of the liver which has been observed is abscess. The disease may have three principal clinical forms, an hepatic, a gastric or intestinal, and a pyæmic. In the first the symptoms are located at the liver, especially in the primary cases; in the second troubles of the stomach and intestine predominate; in the third the abscesses are disseminated in all the organs, and the symptoms are those of ordinary purulent infection.

Letter to the Editor.

PROFESSOR LORENZ'S FIRST AMERICAN
PATIENT.

28 EAST THIRTY-EIGHTH STREET,
NEW YORK, November 16, 1903.

To the Editor,

Sir: I take it for granted that your editorial comment on Professor Lorenz's First American Patient, which was published in your issue of November 7th, refers, at least in part, to some extracts which have recently appeared in the current newspapers of the day, taken from an article I wrote for *Charities*—A Review of Dr. Lorenz's Visit to the United States—issued on October 31st.

If I am correct in my conclusion, I beg permission to say that the information as to the condition of Miss Armour's right hip joint, as described in *Charities*, came to me in a conversation with Lorenz, when he lunched with me at the University Club, a few days before he sailed for home, in July last. He used the very words of my article, viz.: "It is not a perfect reposition." This same statement, in effect, was made by Lorenz to two prominent members of the American Orthopædic Association, neither of them residents of Chicago, and also to other well known general surgeons, members of the American Medical Association, at the New Orleans meeting.

NEWTON M. SHAFFER.

Proceedings of Societies.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNÆCOLOGISTS.

Sixteenth Annual Meeting, held in Chicago, September 22, 23, and 24, 1903.

(Continued from page 776.)

The Indications and Technics of Vaginal Drainage for Suppuration in the Pelvis.—Dr. ALBERT GOLDSPOHN, of Chicago, discussed the chief routes by which infection entered the female pelvis. He described the type of pathological changes resulting from each route. While pelvic cellulitis was rare and of little significance in non-puerperal infections by way of the tubes, it was the leading or primary anatomical change in puerperal infections by way of the lymphatics. When vaginal evacuation of the pus in pelvic suppuration needed to be followed by a more radical secondary operation, in many cases it enabled the inflammation in the uterus or tubes or ovaries to subside during the interval, so that they need not be removed, as would have been deemed necessary if a radical operation had been performed in the first instance or during the acute stage. Vaginal drainage helped to save life in the cases of patients who had become too feeble for a radical procedure to be applied at once. Preliminary drainage improved their condition so that they could stand a radical operation later with no higher rate of mortality than occurred after abdominal section in other cases. This operation should never be a puncture with a trocar, knife, or scissors, but should always be a transverse incision into the posterior cul de sac, preferably with the thermocautery. From this entrance, as a vestibule, laterally located purulent accumulations, if not yet opened, were best attacked by a finger assisted by a forceps. He mentioned the details of the after-treatment. Only a small proportion of the cases so treated by him had required another operation, except when the infection was from the vermiform appendix.

Shortening of the Round Ligaments by the Blunt Hook Method.—Dr. H. W. LONGYEAR, of Detroit, described this method of shortening the round ligaments as follows: The location of the internal ring is determined by finding the point of crossing of Poupart's ligament and the femoral artery, as the ring is situated immediately back and above it. Beginning half an inch inside this point and cutting toward the pubic end parallel to Poupart's ligament, a one inch incision is made through skin, fat, and superficial fascia. Eye retractors and blunt hooks are then used, and the tissues separated down to the aponeurosis of the external oblique, which is thus laid bare to the eye, to the extent of about one square inch. A puncture is now made through this aponeurosis a quarter of an inch long, situated just above Poupart's ligament and to the back of the square inch of cleared aponeurosis, and through this the blunt hook is inserted and the ligament drawn out, usually with more or less of the fat of the canal. The ligament is isolated and its fibrous attach-

ments are stripped back toward the internal ring with blunt pointed dressing forceps, the ligament is drawn out to the necessary length, an aneurysm needle is passed through the aponeurosis, and the loop of ligament is drawn through this, folded back on itself, and, with one stitch of kangaroo tendon, made fast, the suture embracing in its grasp the edges of the aponeurosis where the ligament first passes through it, half of the ligament at the same point, and half on each side of the loop that is folded back on it. The skin is then closed by a running catgut suture, and the dressings are applied. The operation is applicable only to cases of mobile uterus without diseased appendages, in which cases it is an ideal procedure, or to cases in which adhesions may have been previously broken up by abdominal section.

The Need for Study of the Symptoms of Perforation in Typhoid Fever, and the Life-Saving Possibilities of Early Operation.—In a paper on this subject, Dr. W. D. HAGGARD, of Nashville, stated that only about three hundred cases of operation for intestinal perforation in typhoid fever had been reported since the first case, in 1884. Granting that this represented only one half or one fourth, the number was pitifully meagre when it was computed that twenty-five thousand persons died yearly in the United States from perforation and peritonitis in typhoid fever.

He made a plea for an early diagnosis and an attempt, at least, to save a part of this appalling number. On a basis of a possible thirty per cent. of recovery, which was shown to have been attained in the reported cases, 7,500 lives might be preserved yearly by prompt operation. The difficulty lay in making an early diagnosis. The abdomen in typhoid cases should be exposed and carefully examined daily. No abdominal symptom or sign should be considered trivial. Pain was usually the first note of alarm—sudden, severe, colicky, and persistent. Collapse at the time of perforation occurred in only six or seven per cent. A fall in temperature, while not constant, was significant; but a prompt rise in the pulse was uniform and a symptom of the highest value. Tenderness, rigidity, and localization of pain commonly occurred in the order named. Continuance of pain would distinguish it from colic. Exploratory laparotomy, under cocaine, if necessary, was earnestly urged as a diagnostic measure in suspicious, but doubtful, cases. A plea was made for recognition and interference with the early and mild symptoms, and the classical picture of perforation, so called; the drawn features, cold extremities, feeble pulse, sighing respiration, distended abdomen, restlessness, and delirium were not symptoms of perforation *per se*, but of the consecutive peritonitis and really of impending death.

A man in the second or third week of a mild attack of typhoid, without previous abdominal symptoms, who was suddenly seized with acute, paroxysmal, colicky pain in the right iliac region, that caused him to cry out, that did not subside or was not relieved by the ordinary measures, followed by a drop in temperature and a sudden rise in the pulse, and heightened temperature, succeeded by sensitiveness and right-sided rigidity

and a rapidly increasing leucocytosis, might be said to have perforation, not absolutely, but with sufficient assurance to demand immediate exploration.

It was admitted that all cases did not present the typical symptom grouping, and an analysis of the value of the various symptoms was detailed. Statistics of all the reported cases were presented as regarded the greater frequency in men, the rarity in children, the predilection of occurrence in the second and third weeks, the preponderance of location in the ileum, the likelihood of finding the perforation single (eighty-four per cent.), the relative locations in the various portions of the canal, and the uniformity of death without operation.

The surgeon should stand in close relationship with the physician in all typhoid cases, as was done in appendicitis. Doubtful cases should have the closest surveillance and operation at the first indication of a beginning peritonitis.

A Memorial Address on the Late Dr. Davis.—Dr. LEWIS S. McMURTRY, of Louisville, delivered the address on Dr. William E. B. Davis, of Birmingham, Alabama. Among other things, he said that no man enjoyed a more honorable career; no one had brighter prospects for years of useful and enjoyable service. Much earlier than was customary in the medical profession, he had attained the fruition of his hopes. He was a recognized leader in scientific accomplishments, enjoyed the respect of his professional brethren in a remarkable degree, and possessed a large and devoted *clientèle*. He lacked at the time of his death eight months of reaching the age of forty years. His ability, his energy, his incessant activity, his enthusiasm, and his capacity for concentration of thought and labor had placed him in the line of demonstrated success and authority at an age when the members of the medical profession were usually only beginning to receive merited recognition. Dr. Davis was born in Trussville, Jefferson County, Alabama, November 25, 1863, and was killed instantly by accident at a railway crossing in the city of his home, on February 24, 1903.

Dr. McMurry gave an outline of the character of an earnest, honest, able, and intense man, who, dying before the age of forty years, had done the work usually compassed in a good long life. He was a leader among the members of the profession, respected, trusted, and beloved. His memory would be revered and cherished in his home by the loved ones there, and his name and fame would remain with the people of the city which was his home in his native State. The statesman and soldier left his monument in bronze and stone, the man of wealth in the colossal fortune that perpetuated his name, the author and poet in pages of thought and songs that lived, but Dr. Davis, who had joined the silent majority, had a thousand monuments in the hearts of those who knew his good offices and appreciated his generous character.

Some of the Sources of the Disappointments of the Surgeon.—This was the title of the president's address, delivered by Dr. L. H. DUNNING, of Indianapolis. He said it was not his purpose

to present an address filled with pessimistic statements, gloomy forebodings, or records of unhappy failures. There was no more pitiable object than an elderly physician or surgeon who, after having passed a quarter or half century in successful endeavor in the practice of his calling, in the declining years of his life fell into pessimism or disbelief. To lose hope in one's successful endeavor and faith in the beneficence of one's lifework was heart-breaking. He once knew a surgeon of this sort who, during a splendid career as teacher and practitioner, reached an exalted position, and, after his powers began to decline, became a skeptic as regarded the curative value of medicine and surgery. A few years later found him specializing in the use of a secret remedy, the constituents of which he did not know, and later still he had entirely lost the confidence of his former patrons and become a cynical old man, entirely dependent upon the support of an accomplished daughter, whom he had educated in his prosperous days. From such a fate, and from other unhappy states that must surely come to a surgical doubter or scoffer, said Dr. Dunning, "may we all be delivered." He begged of his listeners not to hear a pessimistic note in his address. The motive that actuated the writer was one of inquiry, to the end that the causes of disappointments in surgery might be ascertained, so that in the future they might be avoided.

He believed in surgery, and practised it because he had faith in its beneficent power and had experienced some of the joy that came with a moderately successful endeavor. It could not be denied, however, that surgeons met with their full share of disappointments. Judging from medical journal reports, one was led to believe that there were not a few of these disappointments in the paralysis following the bloodless operation for the cure of congenital dislocation of the femur. The successful extraction of a cataract from the eye had given promise of restoration of sight to the organ operated upon, yet when a sufficient time had elapsed it was found that the patient must walk in total darkness the remainder of his days. A woman was racked by pain in the ovaries, which organs were prolapsed and inflamed. They were extirpated under the belief that such procedure would bring to the patient not only relief from suffering, but also restoration of health, so that she might again with joy take up and discharge the duties of life. Alas! This was not infrequently a delusive hope. Former successes led the surgeon to promise his patient restoration to health or relief from fear of recurrence of an ovarian cyst, if it was extirpated. Upon opening the abdomen, a papillomatous cyst with secondary peritoneal involvement was found, and the surgeon knew that his hope must fail. After months of thorough study and experimentation, a surgeon brought forward a new procedure, the execution of which he believed would prove a means of lessening the mortality of some grave operation or would diminish the risks of recurrence of some malignant lesion. The technicians seemed scientific and its execution was accomplished with ease. The profession accepted it; its popularity grew so that in a few short

months reports of cases were published in many countries and languages. After a time, when a great number of histories of cases had accumulated, it was found that less good had been accomplished by this means than by former ones long in use. These were a few examples which he thought made plain the idea entertained by him in his discussion of the subject.

One of the sources of disappointment which he mentioned related to the surgeon and his environments. The most nearly perfect surgeon was one who ordered his life with the utmost care. Nature must have been profuse in her gifts to him; a good constitution, excellent health, superior intellectual and temperamental endowments, an indomitable will, inflexible purposes, and high moral susceptibilities. His training should be for the development of these faculties, together with the special training that would give him the requisite knowledge and skill to do high grade special work. Add to this good judgment, self-control, and moderation in all things, and we had the essential elements of a successful surgeon.

Disappointments in greater or less degree would come to all surgeons, were they ever so successful, for it seemed to be the natural order of things that contrasting or antagonistic elements existed side by side. The man who became despondent and inactive because of this was the weak man. The strong man would endeavor to magnify the good and crush out the evil. He would in so far as it was possible remove the ugly and retain the beautiful. The surgeon's hope should be to eliminate every preventable source of failure, and when failures came, to make of them task-masters compelling the way to better things.

(To be continued.)

Book Notices.

Serum Therapy, Bacterial Therapeutics, and Vaccines. By R. T. HEWLETT, M. D., M. R. C. P., D. P. H. (Lond.) Professor of General Pathology and Bacteriology, King's College, London, etc. Philadelphia: P. Blakiston's Son & Co., 1903. Pp. viii-262. (Price, \$1.75 net.)

In subject matter this is a most timely book. The great value of antitoxine in diphtheria, tetanus, and the bites of venomous snakes is well known. That other equally important diseases will be successfully treated by this method in the near future cannot be doubted when one considers the vast amount of research work going on daily in the great laboratories of the world.

The book is a small one, but well planned and well written, and the language is clear and explicit. After a terse description of immunity and the nature and formation of anti-bodies, the author presents Ehrlich's unique side chain theory. This theory, so complex and intricate to the casual reader, is stated clearly and simply. The general methods for the preparation of the anti-sera are then described, together with the choice of animals to be employed, the injection of the toxine, the bleeding of the animal, and the preservation of the anti-serum. A

chapter on the general principles of treatment with anti-sera, the mode of administration, and the complications and sequelæ of antitoxine treatment follows. The preparation, standardization, doses, and therapeutic use of diphtheria and tetanus antitoxines and antivenene are described in an admirable and comprehensive manner. The diseases in which the specific microorganisms produce little or no toxine, such as pneumonia, plague, and typhoid fever, the sera for which are mainly antimicrobial in nature, are then discussed, as well as the recent experiments of Macfadyen, who uses the intracellular constituents of the typhoid bacillus, made by triturating the organism with liquid air and obtaining the serum from immunized apes.

The other diseases which have been treated with anti-sera are then briefly enumerated in alphabetical order. This list runs from anthrax, cholera, and dysentery, through to yellow fever, and includes among other diseases leprosy, pernicious anæmia, rheumatism, syphilis, and tuberculosis. The experiments of Dunbar upon hay fever are also included. The transfusion of animal blood and the infusion of saline solutions come within the scope of serum therapy and therefore are taken up in turn. The preparation, uses, and value, of the tuberculins and mallein are next described. A chapter is devoted to the various vaccines, which are used rather for the production of immunity than the cure of disease. In these cases the immunity is produced either by the use of sterilized bacterial cultures or, as in rabies and variola, by the employment of living cultures whose virulence has been artificially diminished. Coley's fluid, the cancrin of Adam Kiewicz, and the uses of brewer's yeast are then briefly discussed.

On the whole, the book is eminently satisfactory and the author has confined himself to the subject with a modest avoidance of personal opinions. Copious references are found throughout the book, and a moderate but sufficient number of cuts illustrate the text. We have read the book with pleasure and commend it warmly to the attention of every student and physician.

The Latin Grammar of Pharmacy and Medicine.

By D. H. ROBINSON, Ph. D., late Dean of the School of Arts and Professor of Latin Language and Literature, University of Kansas. With an Introduction by L. E. SAYRE, Ph. M., Professor of Pharmacy in, and Dean of, the Department of Pharmacy, University of Kansas. Fourth Edition, with Elaborate Vocabularies, thoroughly Revised by HANNAH OLIVER, A. M., Assistant Professor of Latin, School of Pharmacy, University of Kansas. Philadelphia: P. Blakiston's Son & Co., 1903. Pp. xv-273. (Price, \$1.50.)

This is a very practical manual of the Latin language, especially adapted to the needs of students in medicine and pharmacy. It is based on the method now so commonly adopted and formerly represented by the *Principia latina*, namely the concurrent use of exercises and grammar, the grammatical instruction arising out of, and following on, the needs of the exercises. But instead of being gravely informed that "Balbus is building a wall," we glean the far more important information that "the extract of physostigmine is a deadly poison,"

etc. In other words, the student, while learning adequately the grammar and construction of the language in a way and a degree that will enable him, with occasional reference to a dictionary, to read any of the easier classical authors, at the same time acquires a vocabulary that will be useful to him in his professional career, besides enabling him to approach his professional studies with a more intelligent comprehension of medical onomatology, a very important matter in these days of alarming and unnecessary multiplication of technical terms. In this, the fourth, edition many improvements have been made, notably in the exercises and vocabulary. The English mode of pronunciation has been explained. This was most desirable, for while there can be little doubt in these days of the advisability of adopting the so called Roman pronunciation, there can be no doubt that unless extraordinary care is taken, there is a far greater proneness to fall into false quantities with the latter than with the former, a matter which extends itself to the pronunciation of Anglicized Latin words, e. g., sequela. It is the false pronunciation of such words that leads to their so frequent misspelling in the manuscripts with which medical editors are constantly called upon to struggle. We heartily recommend this work, both to students in medicine and pharmacy who are only beginning the very necessary study of this language and also to physicians who, with the lapse of years, have lost what Latin they acquired at school and are desirous of making good the deficiency.

Schmerzverninderung und Narkose in der Geburtshilfe, mit Spezieller Berücksichtigung der Kombinierten Skopolanin—Morphiumanästhesie. Von Dr. RICHARD VON STEINBÜCHEL, Dozent für Geburtshilfe und Gynäkologie an der Universität zu Graz. Leipzig und Wien, Franz Deuticke, 1903. (Price, \$1.00.)

In this monograph Steinbüchel reviews the historical side of his subject, and then treats exhaustively of all the methods of anæsthetizing parturient women, and of obtunding pain during labor. The monograph was written with the purpose of extolling the use of scopolamine combined with morphine as an anæsthetic agent. The author reports thirty-one cases in which the combination was employed, in which analgesia was good in twenty-seven, moderate in three, and unsatisfactory in one. No untoward results upon the pulse, the respiration, or efficiency of the labor pains was noted in any of the experiments.

Starting with the premise that anæsthesia in labor is not only justified but is a matter of duty, Steinbüchel asserts that many of the media employed for this purpose are harmful to either mother or child. The combination of $\frac{1}{8}$ of a grain of morphine with $\frac{1}{180}$ to $\frac{1}{150}$ of a grain of the hydrobromide of scopolamine, given subcutaneously, offers a method which is free from danger and which combines the analgetic and anæsthetic effects of many other agents. It produces a decided diminution of pain, especially of labor pains, without destroying consciousness, permitting of long and severe obstetrical operations without complaint on the part of the patient. The drugs produce no

appreciable diminution in the efficiency of the pains and have no apparent influence upon the child.

The method is still new, and although no deaths following its employment have yet been noted, further reports must be awaited. The author of this brochure is very enthusiastic and his work is worth reading; but the ease of administration of the drugs and the rapidity of their action would lead us to be conservative in advising their general and immediate adoption. This contribution is, nevertheless, of importance as being the first to appear outside of the current journals.

Physicians' Pocket Account Book. By J. J. TAYLOR, M. D. Philadelphia: The Medical Council. Pp. 200. (Price, leather, \$1.00.)

This book, of pocket size, embodies a complete system of bookkeeping for the practitioner, and seems to be as good, practically and legally, as the cumbersome two and three book systems. The business maxims with which the book is embellished would seem to indicate that the physician is regarded as greatly in need of elementary commercial instruction.

Nurses' Guide to Surgical Bandaging and Dressings. By WILLIAM JOHNSON SMITH, F. R. C. S., Principal Medical Officer, Seamen's Hospital, Greenwich. Philadelphia: J. B. Lippincott Company; London: The Scientific Press, Limited. Pp. viii-167. (Price, \$0.75, net.)

We can commend this little work without reserve as a valuable pocket companion for the nurse or student beginner; it is clear, compact, scientific, and neatly printed and bound.

LIST OF BOOKS RECEIVED

The Medical Eptome Series. Anatomy. A Manual for Students and Practitioners. By HENRY E. HALE, A. M., M. D., Assistant Demonstrator of Anatomy, College of Physicians and Surgeons, Columbia University, in the City of New York; Clinical Assistant in Pædiatrics, Vanderbilt Clinic, New York. Series Edited by V. G. PEDERSEM, A. M., M. D., Instructor in Surgery and Anæsthetist and Instructor in Anæsthesia at the New York Polyclinic Medical School and Hospital; Depuy Genitourinary Surgeon to the Out-Patient Department of the New York Hospital; Physician-in-Charge St. Chrysostom's Dispensary; Anæsthetist to the Roosevelt Hospital (First Surgical Division). Illustrated with Seventy-one Engravings. Philadelphia and New York: Lea Brothers & Co. Pp. 389.

Physiologische und klinische Untersuchungen über das Gehirn. Gesammelte Abhandlungen von Dr. EDUARD HITZIG geh. Med.-Rath, Professor der Medizin an der Universität Halle. Theil I: Untersuchungen über das Gehirn. Theil II: Alte und neue Untersuchungen über das Gehirn. Mit 1 Tafel und 320 Abbildungen im Text. Berlin, 1904. Verlag von August Hirschwald. Pp. 618.

Grundriss der Augenheilkunde von Dr. CHARLES H. MAY, Chef der Augenklinik, Columbia Universität, New York. Autorisierte deutsche Ausgabe für deutsche Studierende und Aerzte bearbeitet von Dr. E. H. OPPENHEIMER, Augenarzt in Berlin. Mit 13 Farbendrucktafeln (36 Figuren) und 191 Textabbildungen. Berlin, 1903. Verlag von August Hirschwald. Pp. viii-344.

Clinical Pathology of the Blood. A Treatise on the General Principles and Special Applications of Hæmatology. By JAMES EWING, A. M., M. D., Professor of Pathology in Cornell University Medical College, New York city. Second Edition, Revised and Enlarged. Illustrated with Forty-three Engravings and Eighteen Colored Plates Drawn by the Author. New York and Philadelphia: Lea Brothers & Co. 1903. Pp. xiv-495.

New Inventions.

THE OSTEOSCOPE AS A PROTECTION IN
RONTGEN RAY WORK.

By CARL BECK, M. D.,

NEW YORK.

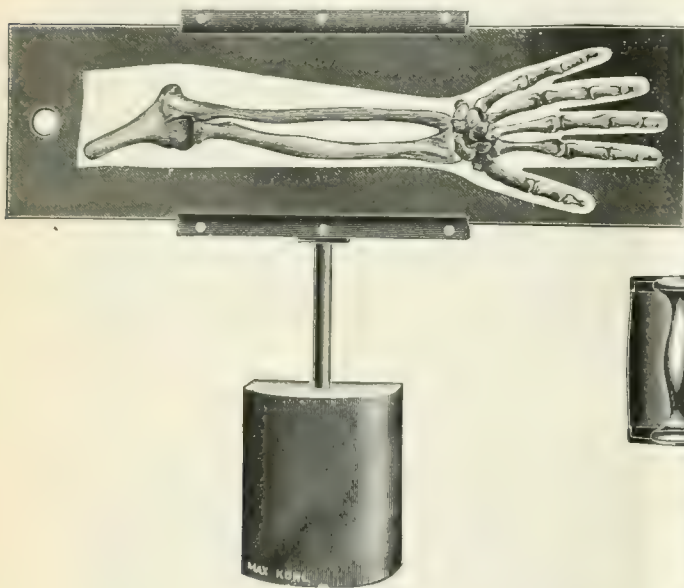
In order to test the vacuum of a Röntgen tube, it is the custom of many operators to hold their own hands before the fluorescing screen. The hand is indeed a most reliable indicator, since it contains many different types of bones, from the massive carpal end of the radius to the delicate third phalanx of the little finger. Still, as we see by the wrinkled and shrivelled Röntgen hands of physicians who employ the method frequently, the danger from continuous exposures is great. To avoid this danger, various skiameters have been devised; but even ingenious apparatus like the chromoradiometer of Holzknicht, the radiochromometer of Benoist, or the *ampoule osmo-régulateur* of Villard, in their

shield of lead, so that the hand is perfectly protected while holding it. It is no small advantage of the osteoscope that only one hand is needed during manipulation. A tapering box like the one used with the fluoroscope may also be attached to the frame. The osteoscope is made by Max Kohl, of Chemnitz.

Miscellany.

A Rare Case of Syphilis Insontium.—According to *Journal médical de Bruxelles*, for September 24, 1903, M. Melot recently reported to a Normandy society of hygiene the following case: A gentleman while walking was struck on the tip of the nose by the whirling whip of a cabman, which produced a slight scratch; a month later, a chancre developed *loc. cit.* The cabman was found and proved to be suffering from mucous plaques in the mouth; he admitted a habit of sucking the lash of the whip!

Humbug is More Lasting Than Brass.—The late Dr. Oliver Wendell Holmes did not live to comment in his caustic yet kindly manner on Mrs. Eddy and the energetic but unsuccessful Dowie, but his



present shape, prove to have only a limited field of usefulness.

A large experience will enable the physician to guess approximately the degree of the vacuum by the general appearance of the light. But this is certainly not a reliable method. With the Walter combination, indeed, the degree of the vacuum can be estimated more accurately, but the arrangement is complicated and is not favored by the average practitioner. The osteoscope (see figures) devised by me will, I think, be found to answer all practical purposes. Instead of jeopardizing the living extremity of physician or patient, the skeleton is utilized. The bones of the forearm and hand are fastened to a sheet of pasteboard or similar translucent material. Inserted in the frame of a fluorescent screen, they can be moved to and fro, so that the phalanges, the carpus, or elbow can be studied. Just as in the living carpus, the bones appear black if a soft tube, and light gray if a hard tube is chosen. The handle of the osteoscope is surrounded by a

reflections on the prevalent fake of his own day must live as applicable to all similar schemes to prey upon human credulity. "What," he asks "is a pseudoscience? It is one that consists of a *nomenclature*, with a self adjusting arrangement, by which all positive evidence, or such as favors its doctrines, is admitted, and all negative evidence, or such as tells against it, is excluded. It is invariably connected with some lucrative practical application. Its professors and practitioners are usually shrewd people; they are very serious with the public, but wink and laugh a good deal among themselves. The believing multitude consists of women of both sexes, feeble-minded inquirers, poetical optimists, people who always get cheated in buying horses, philanthropists who insist on hurrying up the millennium, and others of this class, with here and there a clergyman, less frequently a lawyer, very rarely a physician, and almost never a horse-jockey or a member of the detective police. . . . A pseudoscience does not necessarily consist wholly of lies.

It may contain many truths, and even valuable ones. The rottenest bank starts with a little specie. It puts out a thousand promises to pay on the strength of a single dollar, but the dollar is very commonly a good one. The practitioners of the pseudosciences know that common minds, after they have been baited with a real fact or two, will jump at the merest rag of a lie, or even at the bare hook. . . . It is so hard to prove a negative, that if a man should assert that the moon was in truth a green cheese, formed by the coagulable substance of the Milky Way, and challenge me to prove the contrary, I might be puzzled. But if he offer to sell me a ton of this lunar cheese, I call on him to prove the truth of the caseous nature of our satellite, before I purchase."

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending November 20, 1903:

Smallpox—United States.			
Place.		Cases.	Deaths.
California—Los Angeles.	Nov. 1-7.	1	
Louisiana—Baton Rouge.	Oct. 24-Nov. 7.	2	
Massachusetts—Lawrence.	Nov. 8-14.	1	
Mississippi—Natchez.	Oct. 25-Nov. 7.	3	
Nebraska—Omaha.	Aug. 1-31.	3	
New Hampshire—Manchester.	Nov. 8-14.	2	
New Jersey—Camden.	Nov. 8-14.	1	
New York—Buffalo.	Nov. 2-9.	1	
Ohio—Cincinnati.	Nov. 6-13.	9	
Ohio—Youngstown.	Nov. 8-14.	12	
Pennsylvania—Philadelphia.	Nov. 8-14.	34	1
Pennsylvania—Pittsburgh.	Nov. 8-14.	49	5
South Carolina—Charleston.	Nov. 8-14.	1	
Texas—San Antonio.	Oct. 1-31.	20	
Utah—Salt Lake City.	Nov. 1-7.	1	

Smallpox—Foreign.			
Austria-Hungary—Prague.	Oct. 25-31.	11	
Brazil—Pernambuco.	Sept. 17-30.	15	
Brazil—Rio de Janeiro.	Oct. 11-18.	40	38
Chile—Antofagasta.	Sept. 1-30.	23	1
China—Hongkong.	Sept. 27-Oct. 3.	1	
Ecuador—Guayaquil.	Oct. 11-31.	2	
France—Marseilles.	Oct. 1-31.	21	
France—Paris.	Oct. 25-31.	4	
Great Britain—Glasgow.	Oct. 30-Nov. 6.	4	
Great Britain—London.	Oct. 25-Nov. 7.	17	
Great Britain—Manchester.	Oct. 18-24.	5	
Gt. Britain—Newcastle-on-Tyne.	Oct. 25-31.	6	
Italy—Catania.	Oct. 29-Nov. 5.	3	1
Malta.	Oct. 18-31.	3	1
Mexico—Mexico.	Oct. 26-Nov. 1.	3	
Netherlands—Amsterdam.	Nov. 1-7.	2	
Porto Rico—San Juan.	Oct. 31.	2	
Russia—Moscow.	Oct. 18-24.	6	
Russia—Odessa.	Oct. 11-18.	1	
Russia—St. Petersburg.	Oct. 18-24.	27	
Spain—Barcelona.	Oct. 18-31.	2	
Turkey—Constantinople.	Oct. 26-Nov. 1.	2	

Cholera—Foreign.			
India—Calcutta.	Oct. 11-17.	3	
India—Madras.	Oct. 3-9.	1	
Turkey—Siarbikir.	Oct. 8-15.	5	deaths daily.
Turkey—Severek.	Oct. 8.		Present.

Yellow Fever—United States.			
Texas—Cannel.	To Nov. 18.	19	
Texas—Laredo.	Nov. 11-19.	195	17
Texas—Minera.	Nov. 11-13.	9	
Texas—San Antonio.	Nov. 12-14.	3	3

Yellow Fever—Foreign.			
Brazil—Rio de Janeiro.	Oct. 11-18.	2	
Mexico—Citas.	Oct. 11-24.	2	
Mexico—Ciudad Victoria.	Oct. 11-24.	23	18
Mexico—Linares.	Oct. 11-24.	412	36
Mexico—Merida.	Oct. 11-24.	20	7
Mexico—Nuevo Laredo.	Oct. 11-Nov. 14.	52	21
Mexico—Progreso.	Oct. 11-24.	1	1
Mexico—Salina Cruz.	Oct. 11-24.	8	2
Mexico—Tehuantepec.	Oct. 11-24.	4	4
Mexico—Vera Cruz.	Oct. 24-Nov. 7.	66	32
Venezuela—Barquisimeto.	Oct. 12-13.	2	
Venezuela—Cagua.	Oct. 13.		Present.
Venezuela—Maracabo.	Oct. 18-24.	1	1

Plague—United States.			
California—San Francisco.	Nov. 4.	1	1
California—San Francisco.	Nov. 7.	1	1

Plague—Foreign.

Brazil—Rio de Janeiro.	Oct. 11-18.	44	22
British East Africa—Port Elizabeth.	Sept. 20-Oct. 3.	3	2
China—Hongkong.	Sept. 27-Oct. 3.	2	2
Egypt—Alexandria.	Oct. 11-13.	16	11
India—Bombay.	Oct. 14-20.		60
India—Calcutta.	Oct. 11-17.	17	17
India—Karachi.	Oct. 4-18.	12	10
India—Madras.	Oct. 10-18.		1
Mauritius.	Oct. 16-22.	100	68

Public Health and Marine Hospital Service:

Official List of the Changes of Stations and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the Seven Days ending November 19, 1903:

ASHFORD, F. A., Assistant Surgeon. To proceed to Chicago, Ill., and report to medical officer in command for duty and assignment to quarters.

BERRY, T. D., Assistant Surgeon. To proceed to Cleveland, Ohio, and assume temporary command of the service at that port during absence of medical officer in command; upon completion of which to rejoin his station.

BOGESS, J. S., Assistant Surgeon. Granted leave of absence for one month from December 15th.

CARMICHAEL, D. A., Surgeon. Bureau letter of October 5th, granting Surgeon Carmichael leave of absence for thirty days from October 16th, amended so as to read twenty-four days from October 16th.

EBERSOLE, R. E., Assistant Surgeon. To proceed to San Antonio, Texas, for special temporary duty.

FRANCIS, EDWARD, Assistant Surgeon. Granted leave of absence for fourteen days. Relieved from duty at Vera Cruz, Mexico, and directed to return to the Bureau at Washington, D. C.

FRICK, JOHN, Acting Assistant Surgeon. Granted leave of absence, on account of sickness, for thirty days from July 31st.

GOLDBERGER, JOSEPH, Assistant Surgeon. To proceed to Laredo, Texas, for special temporary duty.

HALLETT, E. B., Acting Assistant Surgeon. Granted leave of absence for four days from November 25th.

LUMSDEN, L. L., Passed Assistant Surgeon. Granted leave of absence for ten days from November 15th.

MAGRUDER, G. M., Surgeon. Granted leave of absence for two days from November 17th.

MAGUIRE, E. S., Pharmacist. Granted leave of absence for thirty days from December 5th.

NEVES, GEORGE, Pharmacist. Directed to proceed to Chicago, Ill., and report to the medical officer in command for duty and assignment to quarters.

PARKER, H. B., Passed Assistant Surgeon. Relieved from duty at Vera Cruz, Mexico, and directed to return to the Bureau at Washington, D. C.

PIERCE, C. C., Assistant Surgeon. Detailed as inspector of unserviceable property on the steamer *Bratton*.

RAMUS, CARL, Assistant Surgeon. Granted leave of absence, on account of sickness, for nine days from October 28th.

ROBERTS, NORMAN, Assistant Surgeon. Upon being relieved from duty at Chicago, Ill., to proceed to San Diego, Cal., and assume command of the service at that port.

ROSENAU, M. J., Passed Assistant Surgeon. Relieved from duty at Vera Cruz, Mexico, and directed to rejoin his station in Washington, D. C.

SOUTHARD, F. A., Pharmacist. Granted leave of absence for seven days from November 14, 1903, under paragraph 210 of the regulations.

STANSFIELD, H. A., Assistant Surgeon. To report to Director of the Hygienic Laboratory for duty.

WASDIN, EUGENE, Surgeon. Granted leave of absence for one month from December 7th.

WILLIAMS, L. L., Assistant Surgeon-General. To proceed to New York, N. Y., for special temporary duty; and as inspector of the Purveying Depot.

Appointment.

FRANCIS ASBURY ASHFORD, of the District of Columbia.

commissioned (recess) as assistant surgeon in the Public Health and Marine Hospital Service.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending November 21, 1903:

APPEL, AARON H., Major and Surgeon. Granted thirty days' sick leave from October 24, 1903.

ASHBURN, PERCY M., First Lieutenant and Assistant Surgeon. Ordered to Presidio of San Francisco, California, for promotion.

BISPHAM, W. N., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort McHenry, Maryland, and ordered to proceed to Fort Logan, California, for duty.

CHURCH, JAMES R., First Lieutenant and Assistant Surgeon. Granted leave of absence for fourteen days from November 12, 1903.

HENDERSON, A. B., First Lieutenant and Assistant Surgeon. Will proceed to Denver, Colo., for examination by Army Retiring Board.

HOWARD, D. C., Captain and Assistant Surgeon. Ordered to report for duty at the U. S. General Hospital, Washington Barracks, Washington, D. C.

LITTLE, WILLIAM L., First Lieutenant and Assistant Surgeon. Relieved from further duty in the Division of the Philippines, and ordered to Camp George H. Thomas, Georgia, for duty.

RAND, I. W., Captain and Assistant Surgeon. Granted leave of absence for thirty days from November 11, 1903.

RUSSELL, FREDERICK F., First Lieutenant and Assistant Surgeon. Ordered to the Presidio of San Francisco, California, for promotion.

SCHREINER, E. R., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Howard, Maryland, and ordered to proceed to Fort McHenry, Maryland, for duty.

SHOCKLEY, M. A. W., First Lieutenant and Assistant Surgeon. Granted leave of absence for thirty days from November 6th, with permission to make application for an extension of ten days.

USHER, F. M. C., First Lieutenant and Assistant Surgeon. Ordered to the Presidio of San Francisco, California, for promotion.

WILSON, COMPTON, First Lieutenant and Assistant Surgeon. Relieved from duty in the Division of the Philippines and ordered to proceed to Fort Howard, Maryland, for duty.

WOLFE, EDWIN P., First Lieutenant and Assistant Surgeon. Ordered to Presidio of San Francisco, California, for promotion.

The following Assistant Surgeons have been ordered to the Army Medical Museum Building, Washington, D. C., for examination for promotion: Captains GEORGE D. DE SHON, JOSEPH H. FORD, ELMER A. DEAN, WALTER COX; First Lieutenants SAMUEL L. STEER, WILLARD F. TRUBY, L. P. WILLIAMSON, CHARLES E. MARROW, HENRY S. GREENLEAF.

Navy Intelligence:

Official List of Changes in Medical Corps of the United States Navy for the week ending November 21, 1903:

ANGENY, G. L., Passed Assistant Surgeon. Detached from the *Essex* and ordered to the Naval Home.

BROWNELL, C. D., Surgeon. Detached from the *Alliance* and ordered home to await orders.

DICKSON, S. H., Medical Inspector. Ordered to the *Kearsarge* as fleet surgeon of the North Atlantic Station.

FISKE, C. N., Passed Assistant Surgeon. Ordered to the Naval Hospital, Boston, Mass.

FREEMAN, G. F., Passed Assistant Surgeon. Detached from the Naval Hospital, Chelsea, Mass., and ordered to the Naval Station at Guam.

GILL, J. E., Assistant Surgeon. Ordered to the Naval Museum of Hygiene and Medical School, Washington, D. C.

McCLURG, W. A., Medical Inspector. Detached from the *Kearsarge* and ordered home to await orders.

Births, Marriages, and Deaths.

Born.

CALHOUN.—In New Orleans, Louisiana, on Monday, November 2nd, to the wife of Dr. William W. Calhoun, a daughter.

FISKE.—In Upton, Massachusetts, on Sunday, November 15th, to the wife of Dr. Charles N. Fiske, U. S. N., a son.

Married.

ATKINSON—RUMMELL.—In Brooklyn, N. Y., on Thursday, November 19th, Dr. Charles Lewis Atkinson and Miss Emeline Christian Rummell.

BARRETT—HOLLANDER.—In Baltimore, Maryland, on Wednesday, November 18th, Dr. Arthur Gilbert Barrett and Miss Alice Hollander.

BURNS—DONOVAN.—In Philadelphia, Pennsylvania, on Tuesday, November 17th, Dr. Louis J. I. Burns and Miss Mary F. Donovan.

CHAMBERLAIN—DRYSDALE.—In New Orleans, Louisiana, on Wednesday, November 11th, Dr. Leonard C. Chamberlain and Miss Jeanette Drysdale.

COE—HUNTER.—In Indianapolis, Indiana, on Wednesday, November 11th, Dr. Oliver Parker Coe and Miss Kathryn Miller Hunter.

FERGUSON—SEWARD.—In Baltimore, Maryland, on Wednesday, November 18th, Dr. Frank Cline Ferguson and Miss Edith Seward.

JESSUP—PEARSON.—In Buffalo, N. Y., on Wednesday, November 11th, Dr. William H. Jessup and Miss Gertrude Pearson.

LYON—BARNBY.—In Kansas City, Missouri, on Wednesday, November 11th, Dr. William Maclay Lyon and Miss Alice Maude Barnby.

MCPHERSON—WILNER.—In Kansas City, Missouri, on Wednesday, November 11th, Dr. Owen Perry McPherson and Miss Nellie R. Wilner.

RISLEY—HOLBERT.—In St. Paul, Minnesota, on Wednesday, November 11th, Dr. John Norman Risley, of Philadelphia, and Miss Mary Estelle Holbert.

Died.

BIVINS.—In Dalton, Georgia, on Thursday, November 12th, Dr. J. Cleveland Bivins.

CHATFIELD.—In Cleveland, Ohio, on Tuesday, November 10th, Dr. Arthur E. Chatfield, in the forty-fourth year of his age.

DE SZIGETHY.—In Brooklyn, N. Y., on Tuesday, November 17th, Dr. Charles A. H. De Szigethy, in the sixty-sixth year of his age.

ENGELMANN.—In Nashua, New Hampshire, on Monday, November 16th, Dr. George J. Engelmann, in the fifty-seventh year of his age.

GASTON.—In Atlanta, Georgia, on Sunday, November 15th, Dr. McFadden Gaston, in the eightieth year of his age.

HAZEN.—In Jericho Centre, Vermont, on Tuesday, November 17th, Dr. Allen Hazen.

MILLER.—In New York, N. Y., on Monday, November 9th, Dr. Hortense A. Miller, in the fifty-second year of his age.

MOSGROVE.—In Urbana, Ohio, on Monday, November 9th, Dr. James M. Mosgrove, in the seventy-ninth year of his age.

RAINEY.—In St. Augustine, Florida, on Monday, November 9th, Dr. I. K. Rainey.

SWAN.—In Stoughton, Massachusetts, on Wednesday, November 11th, Dr. William E. C. Swan, in the sixty-sixth year of his age.

TALMAGE.—In Brooklyn, N. Y., on Friday, November 20th, Dr. Samuel Talmage, in the seventy-second year of his age.

TICE.—In St. Louis, Missouri, on Wednesday, November 11th, Dr. W. Tice, in the seventy-first year of his age.

TUCKER.—In Plymouth, Ohio, on Monday, November 9th, Dr. J. A. Tucker in the eighty-fifth year of his age.

TURNER.—In Front Royal, Virginia, on Tuesday, November 10th, Dr. Daniel J. Turner, in the thirty-eighth year of his age.

New York Medical Journal AND Philadelphia Medical Journal.

CONSOLIDATED.

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WHOLE NO. 1305.

Original Communications

REPORT OF A CASE OF CARCINOMA OF THE BREAST, TREATED BY MASSIVE MERCURIC CATAPHORESIS.*

By G. BETTON MASSEY, M. D.,

PHILADELPHIA.

My purpose in selecting a single case as the subject of a further report on the electrochemical destruction and sterilization of cancerous growths is explained by the unusually typical nature of this case as one on the border line of the inoperable, and by the further facts that I happened to secure a series of photographs of its progress, which are herewith reproduced, and that a careful microscopical examination was made of a specimen taken from the growth just before turning the current on. This latter corroboration of the diagnosis has been omitted by accident in some cases, and if a specimen is not secured before the application it is, of course, impossible to do so after the tissues have been so completely changed by the chemical infiltration.

The case is reported, also, only after a year has elapsed since the single application of massive cataphoresis was made. This proper delay has enabled me to make a better estimate of the success of the treatment than would be possible in what might be called a "wet-specimen" report.

CASE.—Mrs. S., a widow, aged fifty-seven years, was brought to me by Dr. Theodore Saulsbury, of Burrsville, Md., October 7, 1902. She had been in poor health for several years, owing to an inactive liver and defective kidney secretion, but the growth in the breast dated back only seven months (March, 1902). The growth was situated in the outer half of the right breast, measured about two inches and a half in diameter, and was movable on the chest wall. The skin overlying the growth had been invaded by the cancerous process and presented an area of ulceration about the size of a dollar. In the axilla there was a movable enlarged gland, the size of a peach stone, showing that the disease had advanced to the

stage of regional infection. The general appearance of the breast is shown in Fig. 1.

On October 9, 1902, the patient was placed on a spring cot with a large negative pad in moist contact with the entire back, and, under general anæsthesia, the active electrodes of zinc coated with mercury were inserted, one at a time, into the growth near its periphery, connected with the positive pole of an apparatus with a pressure of 160 volts, direct current, and a current of about 200 milliampères to each electrode was gradually turned on. These active electrodes, being connected with the one conducting wire from the positive pole of the apparatus, could be placed in position as the current was increased, without turning the latter off. The area to be destroyed made it advisable to employ from three to four points simultaneously, the total current in circuit being raised to 720 milliampères at the expiration of about twenty minutes. One of the points was placed in the middle of the axillary gland and kept in this situation during the greater portion of the operation. From time to time one of the points



FIG. 1.—Photograph of breast, showing condition before application of cataphoresis.

was removed when a sufficient necrosis had appeared at its situation, fresh mercury added to its coating, and replaced in a fresh spot in the growth.

Within a few moments of the attainment of a sufficient current in the circuit the characteristic whitish-grey necrosis appeared about each point, and at the expiration of one hour and a half the whole growth, the diseased gland, and the intervening tissues had been necrosed bloodlessly and a considerable zone surrounding the necrosed area rendered sterile, so far as outlying cancer cells were concerned.

* Read before the Clinical Society of the New York School of Physical Therapeutics, October 23, 1903.



FIG. 2.—Showing condition immediately after application.

The patient was put to bed under the care of a nurse, and suffered but little pain after recovering from the ether, though some soreness per-



FIG. 3.—Appearance of healing area at end of eight weeks: the separation of slough shows a healthy wound.

sisted for several days. The photograph, Fig. 2, shows the condition of the area under treatment



FIG. 4.—Appearance at end of six months, showing healthy scar with one doubtful spot.

the following morning, the dark line at the edge of the necrosed area indicating the point at which the line of demarcation subsequently developed. At the end of six weeks the slough (which, by the way, was entirely inodorous from the ionized mercury and zinc salts dispersed through it) came away, leaving a clear, granulating wound. The third photograph, Fig. 3, shows the condition at the end of eight weeks, when the patient went home. The fourth photograph, Fig. 4, was taken on March 30, 1903, about six months after the treatment, and shows a healthy scar except at one spot, which was subsequently found to be due to a drop of metallic mercury accidentally imprisoned in the tissues. This was let out, and the tiny sinus sterilized by one application of 10 milliamperes from a zinc-mercury needle inserted into it. No further treatment has been given in this case and the final photograph, Fig. 5, shows the present



FIG. 5.—Present appearance of scar.

condition, one year after the application. This photograph, which was taken with a better lens than the preceding ones, shows not only a most excellent and healthy scar, but a much plumper and healthier woman. In a recent letter the patient states that she is well in every way, and that her general health is better than for a number of years.

Just before turning on the current a small piece of tissue was removed from the growth and sent to the Philadelphia Clinical Laboratory for microscopical examination, with the following result: "The microscopic examination showed the presence of large masses of closely packed epithelial cells with but few fibres between. Blood vessels were well developed. The original characteristics of the tissues have quite disappeared. Diagnosis: Carcinoma."

The method employed in this case has, in the writer's opinion, the following advantages over other surgical procedures: (1) The growth, together with all infected cells, was devitalized at once, without loss of blood, by a process that made operative reinfection of the wound impossible; (2) any outlying infected cells for a short distance beyond the area of destruction were liable to be destroyed by the diffused chemical without detriment to the healthy tissues; (3) the cancer, occupying about one half the breast, was destroyed without an entire sacrifice of this organ.

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The Destruction of Cancerous Growths and Sterilization of the Surrounding Tissues by Mercuric Cataphoresis, *International Medical Magazine*, November, 1902.

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The Woman's Medical College, of Baltimore, Md., has made the following changes: Dr. H. Warren Buckler has been appointed professor of practice of medicine and therapeutics; Dr. Henry Lee Smith, professor of medicine; Dr. J. H. Mason Knox, professor of diseases of children.

The National Goat Dairy Company, of St. Louis, held their first meeting on November 21st and completed arrangements to supply goat's milk to the poor, free of charge, and to others at reasonable rates. The capital stock of the company is to be increased from \$12,000 to \$60,000, and forty local physicians have subscribed for shares. Mr. George B. Huilt will leave for Europe in January to purchase a further supply of goats, of which the company now has 900, situated on 4,000 acres of land in the Ozarks.

TWISTS IN NORMAL AND IN CONGENITALLY DISLOCATED FEMORA.

By ROBERT SOUTTER, M. D.,

BOSTON,

and

E. H. BRADFORD, M. D.,

BOSTON.

In the treatment of congenital dislocations of the hip, it is desirable to determine the amount of pathological twist of the neck and shaft of the femur.

To estimate this, it is necessary to learn what may be considered the normal amount of rotation—that is, the amount of twist which occurs in a large number of instances without causing disability.

This has been examined by others, but as the subject is of importance, additional investigation in a variety of methods may not be undesirable.

What is required is to measure the amount of torsion of the femur as represented by the position of the line of the condyles and that of the line of the neck. If two planes are revolved through the axis of the shaft until one includes the line of the condyles, the other the line of the neck, the torsion will be the difference in inclination of these two planes, i.e., the dihedral angle of these planes.

Next make the plane determined by the line of the condyles and line of the shaft level; its inclination then will be 0° , using gravity as a guide.

Revolve a second plane on the axis of the femur until it coincides with the line of the neck.

To use gravity as guide, here, one can measure the inclination by means of a level protractor.

But since the inclination of the first plane is 0° , the last reading will not only be the inclination of the second plane, but femur torsion as well.

The difficulties lie, not alone in measuring, but in finding, the lines that determine the planes which are to be compared.

The line of the condyles can be determined fairly well.

The shaft of the femur is long, and very slight errors of position, as we shall see, do not alter the measurements materially, provided the other two lines are fixed.

The line of the neck is short, and slight faults in determining it will alter the results considerably.

It is necessary, therefore, to determine all these lines most accurately.

For (1) a given femur must be placed each time in exactly the same position; (2), all femora must be subjected to the same conditions; and (3) the torsion must be measured with the minimum of error.

Place the femur so that the shaft is horizontal and look in the line of the shaft (provided there is a good light at the operator's back); the line of the neck can then be made out fairly accurately.

Mark it with pencil and measure it, then erase the line; remark and remeasure. The measure may vary each time.

Here are the difficulties. It is hard to keep the eye in the line of the shaft; keeping the eye in the line of the shaft insures looking at the line of the neck from its own level and evenly.

Some necks may be remeasured on different days with variation of from half a degree to a degree and a half. The very difficult ones to make out will give a variation on different days from two to four degrees, the latter being the maximum.

The outlines are very indistinct in some necks and the line of the neck correspondingly hard to make out accurately.

But the anterior outline of the neck is often clearly defined, while the posterior fades into the bony parts of the femur, and the eye is apt to neglect the latter for the clear outline of the former.

In determining such a short line, if it is viewed from above or from below, instead of exactly on the level, one end may be made a little higher or a little lower, according to the position of the determining eye.

Evidently with a short line, small changes in the position of either end make considerable difference in the inclination.

If, in marking the pencil line, a straight line is held so that it bisects the neck, then the line of the neck can be marked. It may be sighted above and below the line and determined fairly well by the dark line against the femur, and the neck be divided symmetrically. As this line is aimed, the eye may raise the line a little at one end or the other, unless it is looked at from the level.

Should a rectangular steel plane be substituted for the straight line and its long axis be kept perpendicular to the axis of the femur, the plane will appear as a line as long as it is sighted from a level.

Should the plane appear as a plane, the sighting is from above or below.

By using the plane the eye takes care of itself, and the sighting is instinctively level.

The neck, then, is divided evenly above and below, and the determining of its axis becomes much simpler.

As soon as the plane is adjusted its inclination is measured and it will not be necessary to mark the neck.

Personally, I find I can make much better measurements with a plane to bisect the femur neck than with a line, and where the neck axis is easily defined, repeated measurements on different days and with the bone reversed end to end, will be within half a degree to a degree and a half.

The process takes no longer than the accurate determination of the line of the neck; the bone is not

defaced, nor are subsequent measurements biased by previous markings.

Can the twist be determined from this plane? Can the femur be turned end to end and control measurements made by this method? It seems so, and the same femur neck may be remeasured without merely remeasuring a mark which may have been misplaced.

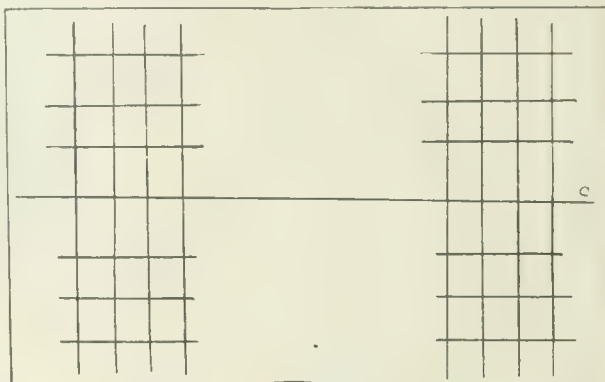


FIG. 1.

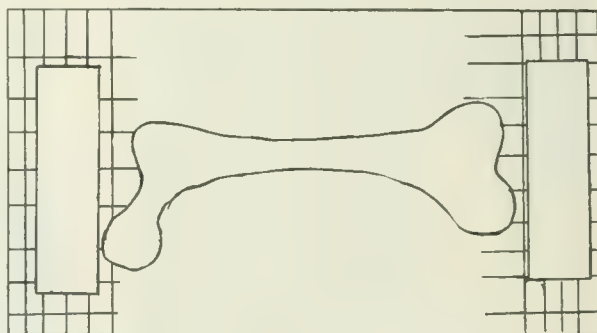


FIG. 2.

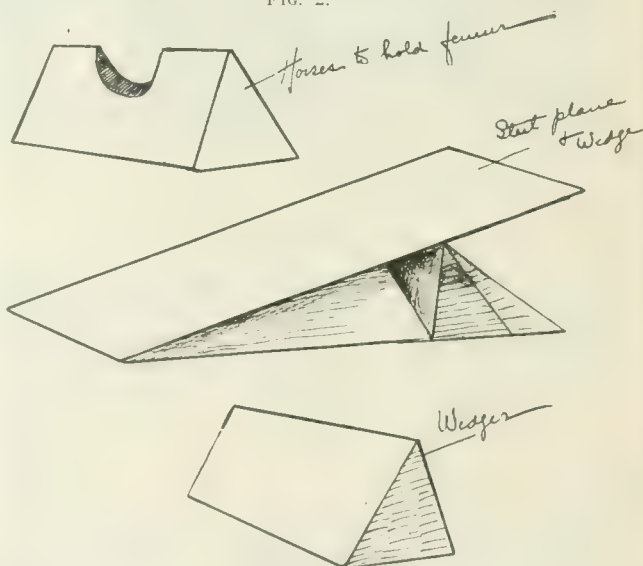


FIG. 3.

APPARATUS.

(1) The apparatus consists of a rectangular plane with a straight line in the line of the long axis. Call this line CC.

At either end of the plane are gridiron lines perpendicular and parallel to CC.

The plane is leveled, a spirit level placed in its long axis, another at right angles to this. If the level is disturbed it is readily noticed.

(2) The femur is supported on two horses. Its axis is made parallel to CC. It is then level. This is readily done by sliding the horses. The curves of the femur are sufficient to give the necessary variation.

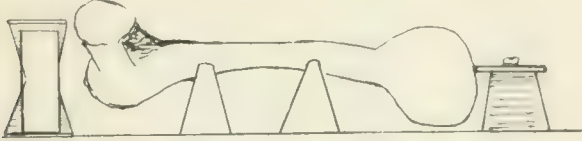


FIG. 4.

(3) A steel plane is placed and leveled at the height of the condyles and their line made to coincide with it. Evidently the plane of the shaft and condyles is level. Its inclination is therefore 0° .

(4) Next define the line of the neck, using a steel plane in the manner described above.

(5) As soon as this plane is fixed, read its inclination by means of a level protractor. This will be the torsion of the femur.

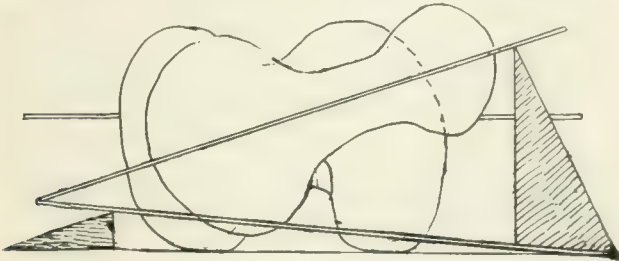


Fig. 5.

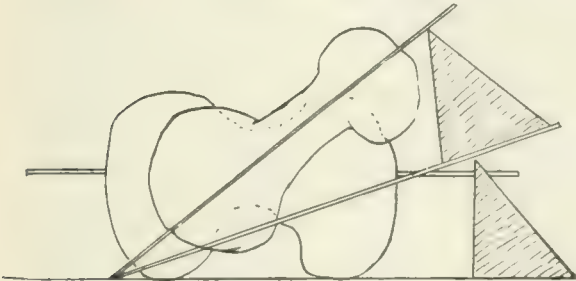


Fig. 6.

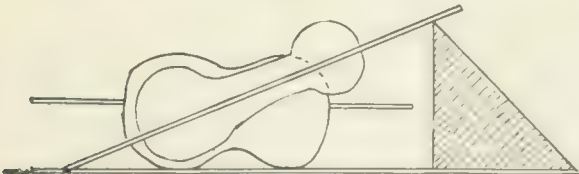


Fig. 7.

The two rectangular steel planes represent the actual planes to be measured.

Lines drawn accurately along the longitudinal axis of these planes will be equivalent to the respective lines of the dihedral angle of the planes, since each one is parallel in its plane to the line of the dihedral angle.

The dihedral angle of the planes is the torsion of the femur.

PRECAUTIONS.

In raising or lowering the steel planes they should be kept in line with the gridiron lines at either end of CC.

By not fixing these steel planes they may be put nearer the lines to be determined and made to coincide more exactly with them.

Using gravity as the guide, the apparatus need

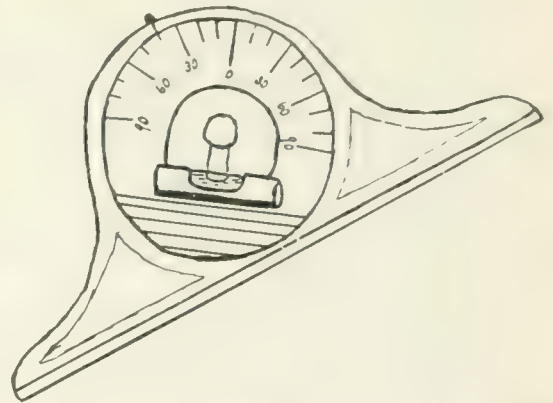
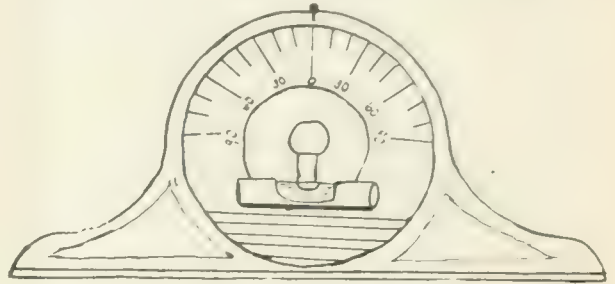


FIG. 8.

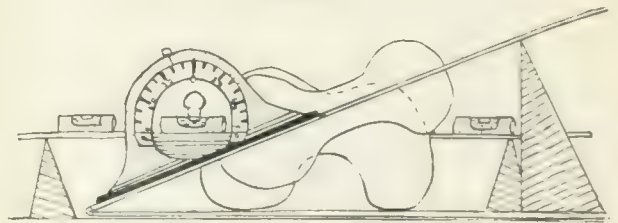


FIG. 9.

not be clamped together and complicated, or delicate machinery is avoided.

By experiment slight deviation of the femur at one end from the line CC, if to the right or left, the error is greater than from slight movements in a vertical plane. Errors of deviation from right to left are more easily prevented, as adjustments in the horizontal plane are simpler, because of the curves of the shaft.

In making measurements the following rules have been observed:

1. Three, four, or five readings have been taken of each femur with strong daylight at the back of the operator. These readings were averaged. Variations were from half a degree to two degrees and a half. Very rarely the latter.

2. Measurements on the same bone were not made consecutively.

3. Intervening measurements were made on at least one, generally on from three to five other bones.

The apparatus is simple; cannot get out of order; is inexpensive.

Rotation or torsion of long bones may be easily, quickly, and accurately determined. The bone may be reversed and control measurements made.

There is no need of marking, and there is no clamping, so that delicate specimens may be measured.

The large plane should be thirty inches by twelve inches.

The rectangular steel planes are easily obtained. They should be heavy and truly level (10 x 12 inches by $\frac{1}{4}$ of an inch thick).

If they are *heavy*, they are not easily jarred out of position and careful adjustment is possible. A line marks their long axis.

To facilitate adjustment a third plane may be hinged to the one used to determine the angle.

The steel planes should be kept with their sides parallel or perpendicular to the gridiron lines of the large plane.

Several spirit levels are placed on lines that are to be kept level. In this way at a glance the apparatus is seen to be in order.

The level protractor can be applied to any line, and instant and accurate readings made. The eye does not have to aim it. The wheel is turned until the spirit level is level, and then a reading is made. Such an instrument can be bought at any mechanical instrument store.

The two horses may be of wire, wood, or tin. By sliding them the curve of the femur is sufficient to raise or lower one end or the other.

The groove for the femur may be packed with cotton and the bone held firmly. Ordinarily this is not necessary.

There should be wedges to support the steel planes. They should be smooth: two of $2\frac{1}{2} \times 2\frac{1}{2} \times 1$ inch; three of $2\frac{1}{2} \times 2\frac{1}{2} \times 2\frac{1}{2}$ inches; one of $4\frac{1}{2} \times 4\frac{1}{2} \times 6$ inches.

Following is a list of the torsion of one hundred and fifty-four femora which I measured at the Harvard Medical School. I am much indebted to Professor Dwight for his courtesy in placing these specimens at my disposal.

No. 1. Age 10 Months.

BONE NUMBER.	TORSION IN DEGREES.	BONE NUMBER.	TORSION IN DEGREES.
1.....	+ 50°	78.....	+ 12°
2.....	+ 40°	79.....	+ 12°
3.....	+ 33°	80.....	+ 12°
4.....	+ 33°	81.....	+ 12°
5.....	+ 33°	82.....	+ 12°
6.....	+ 33°	83.....	+ 12°

7.....	+ 32°	84.....	+ 12°
8.....	+ 32°	85.....	+ 12°
9.....	+ 32°	86.....	+ 12°
10.....	+ 32°	87.....	+ 12°
11.....	+ 30°	88.....	+ 12°
12.....	+ 30°	89.....	+ 11°
13.....	+ 29°	90.....	+ 11°
14.....	+ 28°	91.....	+ 11°
15.....	+ 28°	92.....	+ 11°
16.....	+ 28°	93.....	+ 11°
17.....	+ 27°	94.....	+ 11°
18.....	+ 26°	95.....	+ 10°
19.....	+ 26°	96.....	+ 10°
20.....	+ 26°	97.....	+ 10°
21.....	+ 26°	98.....	+ 10°
22.....	+ 25°	99.....	+ 9°
23.....	+ 25°	100.....	+ 9°
24.....	+ 24°	101.....	+ 9°
25.....	+ 24°	102.....	+ 9°
26.....	+ 23°	103.....	+ 9°
27.....	+ 23°	104.....	+ 9°
28.....	+ 22°	105.....	+ 9°
29.....	+ 22°	106.....	+ 9°
30.....	+ 22°	107.....	+ 9°
31.....	+ 22°	108.....	+ 8°
32.....	+ 22°	109.....	+ 8°
33.....	+ 21°	110.....	+ 8°
34.....	+ 21°	111.....	+ 8°
35.....	+ 21°	112.....	+ 8°
36.....	+ 21°	113.....	+ 8°
37.....	+ 21°	114.....	+ 8°
38.....	+ 21°	115.....	+ 8°
39.....	+ 20°	116.....	+ 8°
40.....	+ 20°	117.....	+ 8°
41.....	+ 20°	118.....	+ 7°
42.....	+ 20°	119.....	+ 7°
43.....	+ 20°	120.....	+ 7°
44.....	+ 19°	121.....	+ 7°
45.....	+ 19°	122.....	+ 7°
46.....	+ 19°	123.....	+ 7°
47.....	+ 19°	124.....	+ 7°
48.....	+ 19°	125.....	+ 7°
49.....	+ 19°	126.....	+ 6°
50.....	+ 19°	127.....	+ 6°
51.....	+ 19°	128.....	+ 6°
52.....	+ 19°	129.....	+ 5°
53.....	+ 17°	130.....	+ 4°
54.....	+ 17°	131.....	+ 3°
55.....	+ 17°	132.....	+ 3°
56.....	+ 17°	133.....	+ 3°
57.....	+ 17°	134.....	+ 3°
58.....	+ 17°	135.....	+ 1°
59.....	+ 17°	136.....	+ 0°
60.....	+ 16°	137.....	+ 0°
61.....	+ 16°	138.....	+ 0°
62.....	+ 16°	139.....	+ 0°
63.....	+ 15°	140.....	+ 1°
64.....	+ 15°	141.....	+ 2°
65.....	+ 14°	142.....	+ 2°
66.....	+ 14°	143.....	+ 2°
67.....	+ 14°	144.....	+ 3°
68.....	+ 14°	145.....	+ 4°
69.....	+ 14°	146.....	+ 5°
70.....	+ 14°	147.....	+ 6°
71.....	+ 14°	148.....	+ 6°
72.....	+ 14°	149.....	+ 6°
73.....	+ 14°	150.....	+ 6°
74.....	+ 13°	151.....	+ 7°

75.....	+ 13	152.....	+ 7°
76.....	+ 13	153.....	+ 9°
77.....	+ 12'	154.....	+ 24° ¹

Miculicz Statistics.

Torsion in Degrees.

37	21	14	12	8	3
31	20	14	12	8	3
30	20	14	12	8	3
28	20	14	11	7	0
28	20	14	11	7	0
27	20	14	11	7	0
27	20	14	11	7	0
27	19	13	11	6	-3
27	19	13	10	6	-3
26	19	13	10	6	-4
24	18	13	10	6	-6
24	18	13	10	6	-6
24	18	12	10	5	-7
24	17	12	10	5	-7
23	17	12	9	4	-7
23	17	12	9	4	-8
23	17	12	9	4	-11
23	16	12	9	4	-15
22	15	12	9	4	
22	15	12	8	4	
21	15	12	8	3	

Miculicz + 37 to - 25.

Broca + 38 to + 2.
+ 40 to - 9 as reported in this paper.

Torsion in degrees of normal femora.

The specimens measured by Broca and those by Miculicz are all that I have been able to find in literature.

With the 154 specimens here reported the above is a fair estimate of the normal variation in the femur torsion.

That found in the congenital hip dislocation remains to be investigated.

Dr. C. H. Nichols has measured the torsion in a few congenital hip specimens. His estimates are 28°, 45°, 50°, and 65°.

Where much twist is present the manipulation necessary in reduction is different from what is needed where the amount of twist is small. There is also a greater danger of transposition, *i.e.*, a forward dislocation, as the ultimate result following reduction, if an amount of twist in the femur exists to a degree beyond the limit compatible with normal function. The degree of rotation in a case of congenital hip can be estimated by palpation in children with hips not well padded with fat or muscle, but where the head of the femur cannot be well felt no estimate of the amount of twist can be made except by x ray pictures.

If an x ray photograph is taken of a case of congenital dislocation, the appearance often given is that

of a distorted head and neck, or even of apparent entire absence of the head. If the same patient is skia-graphed with the limb placed in a different position, a different appearance of the head and neck will be seen, owing to the different shadows cast by the head and neck according to their different positions, relative to the plane of the photographic plate.

In the normal condition, the axis of the femoral head and neck is in the same plane as the transverse axis of the pelvis. When the limb is in such a position that the patella faces forward and the foot points forward, and where a rotation is present of 90°, the head will point directly forward. Under these circumstances the shadow picture will either show no projecting head, which will be mashed in the shadow of the great trochanter, or the head will appear above the trochanter like an abnormal growth.

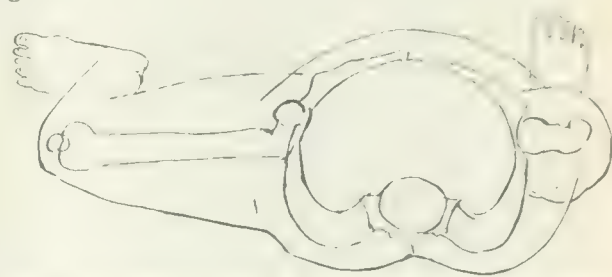


FIG. 10A.—Section of trunk at pelvis, showing position of head and neck of femur, with the foot straight, and turned out.

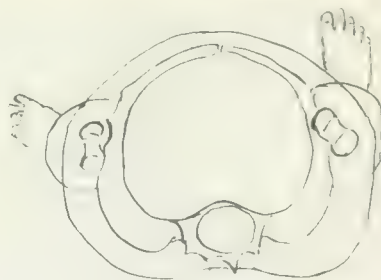


FIG. 10B.—The same, with a twist in the neck and shaft of femur.

In proportion as the head appears near the shadow of the shaft and great trochanter in a skiagram taken directly forward, the amount of twist approaches full rotation of 90°. To determine the degree of rotation, it is necessary to take the skiagram with the foot in such a position that it points directly forward, and from the more or less prominence of the head an estimate of the degree of rotation can be made. If a skiagram of the limb is taken also with the foot strongly everted, the length of the neck can be estimated in the difference shown in the two skiagrams. From an examination of a number of skiagrams of congenitally luxated hips, femoral twist is the rule, and in many instances to a marked extent a rotation to an amount which can be estimated at 90 degrees, is by no means exceptional. In all the cases which I have examined by skiagram the

¹ Exostosis. Of normal bones the variation in our list is from + 40° to - 9°.

rotation was so that the head pointed forward, but in a case which was cut down upon, a rudimentary

The influence of the femoral twist in the ultimate result of treatment of congenital dislocation of the



FIG. 11.—Skilagram of a case of congenitally dislocated femur, taken with the foot pointing forward.



FIG. 12.—Skilagram of the same congenitally dislocated femur, taken with the foot turned out, showing that the head points slightly outward when the limb is exerted.

head with the absence of the neck was found pointing backward.

hip, has not as yet been thoroughly investigated. That it presents an important factor in the develop-

ment of a transposition would seem beyond question. In a few cases which have been watched, the development of the transposition as the patient gains in activity appeared to be seen by skiagraphic records, but as yet the limit of femoral twist which is compatible with normal function is not known, nor the amount of correction by growth which can be expected after the dislocation has been reduced. For this reason the need of osteotomy as a preventive to transposition is not yet determined and cannot be known until a number of cases have been watched for a time and a comparison recorded between those on whom osteotomy has been performed and those left to manual correction. A few cases, under the writer's care, of osteotomy at the time of, or shortly after, operation by manipulative correction, are under observation, which, with cases reduced at the same time but without osteotomy, will serve later, it is hoped, to throw some light upon the subject.

TUBERCULOUS INFECTION OF THE PERITONÆUM AND ANNEXA.*

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The fact that tuberculosis of the peritonæum and of the appendages is so frequently associated, would seem to make their combined study a logical one.

Veit (1), in his address delivered at the last International Congress of Gynæcology, declared peritoneal tuberculosis to be always a secondary infection, whereas genital involvement might be either primary or secondary.

Martin (2) thinks genital tuberculosis is far commoner among women than is generally believed. Whenever we find inflammatory disturbances in the uterus or appendages in a tuberculous subject, we should be suspicious of genital tuberculosis. He believes the appendages are infected from the intestine through the glands or peritonæum or through the blood current.

Borschke (3) found, in 1393 subjects of tuberculosis brought to autopsy, 226 in which the peritonæum was affected. Of this number, in only 2 could it be affirmed that the peritonæum was the primary focus of infection. Borschke's study demonstrated the large majority of infections to arise from the bronchial glands, lungs, and pleura.

Amann (4), also, is of the belief that the bronchial glands are the primary site of infection, and from these the lungs, pleura, peritonæum, and append-

ages are secondarily involved. He affirms with a rash positivism, that a primary tuberculous lesion of the appendages, uterus, or vagina has never yet been seen, and cites in support the statements of certain celebrated pathological anatomists, who have never seen an unquestioned instance of primary genital tuberculosis in an adult female.

There can be no doubt that the peritonæum may become infected from the Fallopian tubes. Vierordt has reported a case where, in a child aged six years and a half, tuberculous peritonitis followed a long continued vaginal discharge in which tubercle bacilli were found.

Howard Kelly has shown that women in the puerperal state are peculiarly susceptible to tuberculous infection of the peritonæum and annexa, and Amann has commented on the same observation.

The frequency of infection in women as compared to men has been widely noted in peritoneal tuberculosis. And this fact has led to the belief that the appendages may, in a large percentage of cases, be first involved. Even though the evidences of tuberculous deposits may not be apparent macroscopically along the tubes or in the fimbriæ, there is reason to believe that in many cases the endometrium and tubal mucosa may have been the avenue through which bacilli were conveyed to the peritonæum. The early experiences at Johns Hopkins, as cited by Williams, illustrated how easily tuberculosis of the annexa in the incipient stage may escape observation until a systematic and critical microscopic study is instituted.

Nothnagel found 90 per cent. of cases of peritoneal tuberculosis to be in women. Out of 131 cases tabulated by König (5) only 11 were in men. Osler's reports show a disparity almost equally striking. Notwithstanding this difference, tabulated autopsy reports show a greater mortality among men than women. Halstead explains this by the fact that women are more frequently operated on for abdominal diseases than men, and, as a result of laparotomy, are restored to health.

The pathology of tuberculous involvement of the peritonæum and annexa is essentially similar. In each, three characteristic types are to be observed, namely:

- (a) The military, or disseminated serous exudative;
- (b) the ulcerative or caseous suppurative;
- (c) the adhesive or chronic fibroid.

Some variation is found in children where, as Holt has noted, the mesenteric glands are more extensively involved, secondary doubtless to infection of the bronchial and the retroperitoneal glands. In military involvement there is a general disseminated tuberculosis, represented by small greyish nodules studding the omentum and peritonæum as

* Read before the California State Medical Society, April 22, 1903.

well as the tubes and fimbriæ. Each small nodule is surrounded by a narrow injected zone of hyperæmia.

In the ulcerative and caseous form, commonly seen in the tubes and in the peritoneal spaces between the intestines, there may be marked distention of the tube, from pus and caseous matter, if the ostium abdominale is closed.

In the peritonæum the exudate may be non-purulent and may take the form of a serous or sero-fibrinous effusion, either free in the cavity, or sacculated.

Cirrhosis of the liver is a somewhat frequent, though not adequately explained, concomitant of this form, and in alcoholics the exudate may be stained with blood.

In the adhesive or chronic fibroid variety we find the annexa bound to the uterus, and to the floor and walls of the pelvis, in a more or less dense mass. I recently saw with a colleague a case in which every landmark of the pelvic organs was obliterated in a mass the size of an infant's head. It was possible, after prolonged dissection, to isolate the uterus, and by inverse order obliterate the left tube and ovary and excise the major portion of the right tube; but the right ovary blended with the broad ligament in a fibrous mass which, owing to its intimate relation with the right ureter, was left undisturbed. The left tube was full of caseous purulent material and the right was nodular from tuberculous deposits. The recovery was uneventful.

Where the peritonæum is extensively involved both the intestines and omentum may be agglutinated in a dense mass. Very frequently the omentum is rolled up in a scroll under the umbilicus, and again it is often found in a nodular enlargement not unlike the nodules of a rapidly developing malignant tumor. Between the coils of intestine a fixed tissue proliferate seals the structures into a thickened mate, often enclosing within the coils a cystlike collection of fluid.

An increasing number of cases of tuberculous infection of the vermiform appendix complicating tubal tuberculosis are being reported.

Kraus (6) has recently reported a case in which, in a woman thirty years of age, there was a history of appendicitis ten years previously. A tumor was found in Douglas's cul-de-sac, which was composed of a tuberculous tube and appendix and enlarged ovary. The ovary contained pus but no tubercle bacilli. On examination it was found that the tubercles were confined to the distal end of the tube and tip of the appendix. The inference was that infection was by extension from the appendix to the tube along the appendiculoovarian ligament of Clado. I have seen this complication in but three cases. In two instances infection was clearly from

the tube to the appendix; in the third, the appendix, which was bound to the brim of the pelvis, had drawn the fimbriæ down in an adherent mass about it. The peritonæum was involved in two cases, the omentum being bound down and gathered in clumps under the umbilicus. The effusion was not large in amount and remained free in the peritoneal cavity.

The symptoms of tuberculosis of the annexa are not definite, constant, or clear. They are somewhat more characteristic in the uncomplicated involvement of the peritonæum. But in many instances definite differential features are wanting.

Usually, in the miliary variety, the constitutional quite overshadow the local symptoms. Occasionally, the outset of an attack is so severely acute as to simulate intestinal obstruction or gangrenous appendicitis. Again, there may be scarcely a symptom beyond malaise, a subnormal temperature, and gradually increasing ascites. Diarrhœa is present if infection arises from ulcerations in the intestinal mucosa. The evidences of tubal or ovarian involvement may vary from those of a mild salpingitis to those of pelvic abscess. Menstruation may be undisturbed, or there may be irregularity with actual amenorrhœa or menorrhagia, as was first shown by Daurios.

In subjects suffering from pulmonary tuberculosis or tuberculous peritonitis the symptoms in the pelvis indicating disease of the tubes, ovaries, or endometrium may safely lead to the right conclusion.

Kelly regards pain in the back and hypogastrium as the most constant and valuable symptom in tuberculous peritonitis. In many cases it is absent. There is some tenderness and persistent tympany in all forms; and in the dry, certain more or less constant friction sounds. In the exudative form the ascites will need to be diagnosticated from cirrhosis of the liver, and from carcinoma, wherein the portal circulation is seriously interfered with; but it is always well to remember that cirrhosis of the liver is often a concomitant of tuberculous peritonitis. The temperature is never characteristic. In acute peritoneal invasion it may simulate typhoid and the disease be mistaken for it. But in the chronic adhesive form the temperature may be subnormal throughout. The diagnosis of tuberculous lesions within the pelvis will be greatly aided by carefully considering the history of the patient, together with the fact that tuberculous invasion may at the same time exist in the lungs, pleura, glands, joints, and bones. But, unless the bacillus is actually found in the discharge or curetted material from the uterus, the character of the inflammatory change in the pelvic organs can only be surmised. It is well to remember, also, that no dependence is to be placed upon the blood count. The differential diagnosis between tumor masses within the abdomen

may prove easy or difficult, according to the collateral evidences which may be brought to bear. I have seen plaque-like adhesions in both cancer and adhesive tuberculous peritonitis. Again one finds nodular tumors in both these infections. An agglutinated mass of omentum, gall bladder, colon, and pylorus, may very closely resemble either of the conditions named. Still again, cystic occlusions between the lower coils of the ileum have frequently been mistaken by the cleverest of men for ovarian and fibrocystic tumors in the cul-de-sac. Nevertheless, if the history of the patient, the progress of the disease, the character and location of pain and tenderness, the temperature, pulse, condition of bowels, and state of nutrition are carefully considered, tuberculous peritonitis in any of its forms should be properly diagnosed.

The question of prognosis is still a matter of varying opinion. In 1884, König, whose masterly contributions to the surgery of tuberculosis mark a period of classicism, inaugurated a revival in the study of peritoneal tuberculosis by reporting 70 per cent. of recoveries after treatment by laparotomy. Later, he was forced to the melancholy conclusion that more time should have been allowed, and that instead of 70 per cent. he could point to but 25 per cent. who had survived.

Cellier reported 71 per cent. of recoveries out of 287 cases operated. But after two years he too could find but 25 per cent. living.

Frank reports 41 cases from Czerny's clinic, of which 26.8 per cent. were well after three years.

Herzfeld made a report, from Körte's clinic, of a similar character.

Fenger (7), in an exhaustive review in which the ablest pathologists and operators are liberally quoted, leans strongly to the conservative views of Borchgrevink (8), "who does not hesitate to state that 'even the serous tuberculous peritonitis is a territory which surgery must hand back to the internal medicine clinic, with thanks for the splendid opportunity which a misunderstanding gave to the profession by means of laparotomy—to study tuberculosis in one of the large cavities of the body.'"

Happily, so gloomy a view has not met with general acceptance, and Fenger himself admitted that in its favorable form, tuberculous peritonitis would yield 50 per cent. of cures. It is clear that many operators have been unfortunate in the selection of cases which may be properly termed operable, and also in the brief time which they have allowed to elapse before reporting their patients cured. Five years would seem to be a fair limit of time before claiming a cure. It is accepted by all that the ulcerative caseous type of involvement is not favorable, and as a rule should be let alone. Perhaps the same may be said of the extreme types of chronic ad-

hesive, where the peritoneal cavity has been totally obliterated.

The treatment of tuberculosis of the appendages is somewhat dependent upon the extent of area involved. If the affected part is a slight ulceration of the cervix or vagina—an extremely rare condition—the application of iodine, formaline, or lactic acid, following curetting of the ulcer, will usually prove effectual. Should it not do so, then excision and suture rarely fail to cure.

Where the endometrium is known to be involved, very commonly the tubes are also affected. But as a rule the case comes to laparotomy before this is determined, and it becomes a question of curetting and ablation of the appendages, or a panhysterectomy. In most instances of tubal involvement the latter will prove the necessary measure, anything less radical being inadequate. Generally, the surgical results in tuberculosis of the appendages are decidedly favorable, unless there exists extensive tuberculous involvement outside the abdominal cavity.

Ahlefelder (8) reports 13 cases, 9 of which were in married women. Only 4 were diagnosed before operation. The Fallopian tubes were affected in every case save one, and all the subjects were sterile. Of those operated on, 5 recovered perfect health, 5 were greatly benefited, and 3 died—2 from general progressive tuberculosis and 1 from tuberculous meningitis. Those cases complicated with chronic tuberculous peritonitis showed marked improvement after laparotomy.

Sellheim (9) reports 65 cases observed at the Freiburg clinic within the past eight years. Twenty-eight of these were treated in a palliative way with much benefit. In 37 cases laparotomy was performed with the best results.

Sellheim advocates the complete removal of the uterus and annexa. Of the few cases coming under the observation of, and operated on, by the writer, the detailed report of which would add little to the value of this review, the type of involvement was the caseous suppurative in the tubes, and the miliary and chronic adhesive in the peritonæum. Two were complicated with appendicitis.

In each case there had been, previous to the peritoneal infection, tuberculous invasion of the lungs. All recovered from operation, but two died of a progressive tuberculosis—one six and the other fourteen months after section. Surgical interference seemed of positive benefit to the others except one, in which pulmonary complications have proved a serious embarrassment.

Veit (9) believes, with Borchgrevink, that peritoneal tuberculosis may become cured spontaneously, but does not admit that as many will recover without operation as with it. He considers laparo-

tomy in all but the ulcerative caseous variety, almost invariably rewarded by cure or substantial benefit, the few failures being due to an advanced and general infection of other organs. Recent cases should be operated on promptly; chronic subjects should be closely observed, and operated on if spontaneous subsidence seems improbable. Veit favors simple section in the linea alba, mopping out the effused fluid and closure of the wound. Where the annexa are involved they should be removed. Cure he believes to be due to the antitoxic action of the serum from the wound. Statistics show 50 per cent. cured and 25 per cent. greatly benefited after the lapse of from four to five years from the date of laparotomy. Tuberculous lesions in localities outside the abdomen are not materially benefited.

Veit's conclusions may be accepted as representing the sanest view of this subject thus far presented.

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3. O. Borschke. Quoted by C. Fenger. *Annals of Surgery*, December, 1901.
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6. Kraus. *Centralblatt für Gynäkologie*, No. 27, 1902.
7. C. Fenger. *Loc. cit.*
8. Sellheim. *Centralblatt für Gynäkologie*, No. 45, 1902.
9. Ahlefelder. *Monatsschrift für Geburtsh. und Gynäkol.*, *loc. cit.*
10. J. Veit. *Loc. cit.*

A Curious Advertisement.—The following curious advertisement appeared in the *Shields Daily Gazette and Shipping Telegraph* of March 17th last, and is quoted by the *Lancet*:

PUBLIC NOTICES.

A debt of honor due to Dr. Bains for the most prompt and careful attention paid to my beloved wife during her severe illness, trusting that the people in the Borough of South Shields will patronize his profession; we are also very greatly indebted to all our friends for the sympathetic kindness and attention given to my wife during her trouble; also the kindness and respect shown to her by our friends from Tynemouth Castle and in the vicinity of Tynemouth on the 15th inst., when on that date she was interred at Harton Cemetery. I also wish to bring to notice the manner in which my most esteemed friend, J. Milnes, catered for the same, and sincerely trust that our friends in South Shields will appreciate and patronize 84 New Market Dining Rooms.—Signed,

JABEZ HAWKINS SHEPPARD,
and A. H. EWART,

her most bereaved husband and father.

181 Victoria Road.

Upon this the *Lancet* remarks: "We do not see the name 'Bains' in the *Medical Register* or the *Medical Directory*, but we trust that if the gentleman referred to is a qualified medical man he received not only the 'Honor,' but something more substantial."

DRY HOT AIR IN THE TREATMENT OF BRIGHT'S DISEASE.*

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AMERICAN ROENTGEN RAY SOCIETY, AMERICAN ASSOCIATION
FOR THE ADVANCEMENT OF SCIENCE, YALE MEDICAL
ALUMNI ASSOCIATION, ETC., ETC.

*Mr. President, and Members of the New Haven
County Medical Association:*

It may have occurred to you to wonder why I have elected a discourse upon a special subject for delivery before a body of general practitioners. My reasons were three in number:

First, the disease in connection with which I am to discuss this special form of therapy, is one which the general practitioner almost invariably sees first, with which he grapples during the greater period of its course, and to the victims of which he also usually administers the last services which ease their sufferings when the condition has progressed to the stage which precludes the possibility of recovery. It therefore presents a peculiarly interesting aspect to the general practitioner.

Secondly, the disease is one the pathology and symptomatology of which are usually very resistant to the ordinary well-known methods of management, and any measure which promises to increase our ability to overcome the disease or its resultant conditions, is worthy of the serious consideration of any body of medical men.

Thirdly, there is being inaugurated at the present time a new era in therapeutics, an era that will be characterized by the prominent position which natural physical and psychical forces will occupy in the management of disease processes, as opposed to a therapy constituted exclusively by the administration of drugs and ablative surgical procedures. This departure from traditional lines has been fomenting for the past twenty years, but it was not until the discovery of the marvellous power which the x ray exhibits when applied to the management of malignant processes, that the profession at large was impressed in any appreciable degree by the claims of these forces for therapeutical recognition. Electrotherapy has

* Read at the annual meeting of the New Haven County Medical Association, at New Haven, Conn., April 16, 1903.

been battling for its life, during this period, against the overwhelming odds of imperfect and inadequate instrumental construction, inefficient manipulative technique, and lack of knowledge of its physiological action; mechanical vibration therapy, as represented by massage, was contemptuously refused place in the columns of the medical press at the time of its first appearance twenty years ago; psychiatry was looked upon as the pitch which could not be touched without defilement up to seven or eight years ago.

In spite of persistently disadvantageous environment, however, these agents have retained their places in the struggle for the mastery over disease, which fact is pregnant with significance as concerns their actual inherent value. Knowledge of their remedial powers and principles of action has continued to be disseminated, through the study of investigators who had been sufficiently impressed to court adequate familiarity with their correct principles of application, and to-day enough clinical and experimental observations are available to place the use of many of the natural forces upon a scientific and logical basis of rational therapeutical indication in a large number of diseased conditions, and to prove that, in the conditions to which they are rationally applicable, their *appropriate, technical* employment will enable us to increase by a large percentage our ability to cope with disease. Thermotherapy has been one of the latest developments along these lines, but it is by no means destined to be the least important. The last, but by no means the least of the reasons which impelled me to speak upon this subject to-day, then, was my conviction that it is the duty of those who are conversant with the newer therapeutics to disseminate their observations as widely as possible, in the interests of humanity as well as of medical science.

In selecting a rational management for any disease process the first step logically indicated would be to determine the pathology present. This knowledge obtained, we are in a position to decide which of the remedial agents available will be the most likely to correct the aberration from normal function.

Unfortunately, a positive knowledge of the primary ætiological factors of the disease under consideration, is not available at the present time, but the symptomatology and local tissue alterations are such as to point with a strong degree of probability to disorder of the sympathetic nerve centres which govern the functions concerned in tissue metabolism, more particularly *oxidation*, as the primary causative factor. This would entail the assumption that a constitutional susceptibility to

disturbing influences in certain pathological directions exists in these patients; a subtle sort of diathesis, in short. This assumption would fit in very nicely with the clinical phenomena of the disease and is not difficult of belief, as we see different degrees and varieties of diathetic manifestations every day. Speculations as to the primary ætiology of the disease are at present fruitless, however, and fortunately positive knowledge upon this point is not necessary, so far as the use of dry hot air in its treatment is concerned. We can derive an ample number of rational indications for its employment from the well-known clinical phenomena.

Let us consider briefly some of the most prominent and constant of these clinical manifestations and see if it is possible to deduce anything as to the causative factors, which will be of use in selecting a curative agent.

First, there is frequently present dyspnoea of variable degree, which *might* be due to pressure upon the pulmonary innervation, interference with the respiratory movements through fluid accumulations in the abdominal or pleural cavities, or irritation of the nerve endings in the pulmonary mucosæ by the excretion of abnormally irritating bodies from the blood current.

Second, dropsy, which might be due to changes in the blood pressure from insufficiency of the cardiac or arterial impulses, changes in the composition of the blood serum, or irritation of endothelium from toxic bodies circulating in the blood current.

Third, digestive disturbances, which could also be due to excretion by the alimentary mucosa of toxic bodies present in the general circulation.

Fourth, a variable degree of bronchitis, indicating an abnormal, irritant condition of the excretions of the pulmonary mucosæ.

Fifth, affections of the skin, explicable upon the assumption of either trophic aberration, or the presence in the integumentary excretion of abnormal irritant matters.

Sixth, a quickened heart action accompanied by increased arterial tension, easily explicable upon the assumption that the blood current holds in solution some irritant body, or bodies.

Seventh, headache, dizziness, insomnia, increased general nervous and muscular irritability sometimes eventuating in the most pronounced convulsive seizures; all strikingly indicative of the presence of toxic contamination of the body fluids.

Eighth, the total urinary output in the ordinary chronic form of the disease, is usually somewhat in excess of the normal, with lowered specific gravity, a phenomenon easily interpretable as the result of renal irritation due to the presence in the

blood of an abnormal toxic element. In the more acute seizures or exacerbations, a diminution in quantity obtains, which reaches the point of complete suppression when the inflammation of the secreting structures attains a sufficient degree of intensity, and this inflammation again, is undeniably dependent upon *some* antecedent irritation.

Ninth, the fact that albumin is usually found in the urine is explicable upon the same causative hypotheses advanced in connection with dropsy, one of which, you will remember, involved the presence of some irritating body in the general circulation.

Tenth and last, the structural changes in the kidneys of true Bright's disease are just such as we should expect to find as the direct or remote result of inflammatory action, which again presupposes the presence of the element of antecedent irritation.

A general debility of varying degree, frequently amounting to profound prostration, also usually accompanies the development of the renal symptoms.

We have, then, ten of the cardinal elements which combine to form the clinical and pathological picture of Bright's disease of the kidneys, and four of the minor symptoms, for the explanation of every individual one of which the hypothesis, that an abnormal substance or substances possessing toxic and irritant properties is contaminating the general circulation, would be sufficient; and I do not know of any evidence tending to show that such a product and condition do *not* exist in this situation, or that their existence would not be sufficient to explain all the pathological phases of this ailment.

The next inquiry that would naturally follow in this line of reasoning, would be "What is the nature and evolution of this abnormal toxic irritant?"

We find that the urine of Bright's disease nearly always exhibits a deficiency in the quantity of urea normally present, and the first thought would be that the accumulation in the blood of an intolerable amount of this product of catabolism, was the offending factor. Indeed, this view of the matter has been very generally accepted until recently, but there exists some evidence tending to show that another solution of the problem invites consideration.

First, although the urine is deficient in urea, yet that does not *necessarily* prove that the missing quantity has been retained in the blood, as *urea*.

Second, it has been found that urea injected into the veins of animals produces scarcely any general disturbance, *unless the kidneys have been extirpated or their blood vessels tied off*.

Third, although death always follows the extirpation of both kidneys or ligation of their blood vessels, yet this does not necessarily prove that death under these conditions is due to retention in the blood of *urea*, and further, uræmic phenomena do not by any means always accompany dissolution under these conditions. The element of shock, which the total destruction of an element so vital to the preservation of the organism as is the renal function, would enter into the problem with a force that cannot be estimated, and that might in itself, and exclusive of all other causes, be sufficient in its remote reflex influences upon other functions and the general bodily metabolism, to produce death.

Fourth, cases of complete suppression of the urine for periods varying from five to twenty-five days, and exhibiting no increase in uræmic signs, are not so very uncommon in medical literature. In these cases the blood is, of course, loaded with urea, and increase in the uræmic symptoms could hardly fail to appear if urea were the active cause of them.

Fifth, although the induced perspiration of Bright's disease is said to exhibit a marked increase in its *toxic* properties, yet the quantity of urea found therein bears no adequate proportion to the amount of benefit frequently dependent upon the induction of the perspiration.

Sixth, urea in excess is by no means always found in the blood drawn during uræmic seizures.

Seventh, urea is a normal, therefore an unirritating, excretory product of the kidneys, and no evidence is at hand to indicate that these organs would be unable adequately to excrete any amount of it *which the bodily metabolism was capable of elaborating*, or that *urea* in itself is capable of provoking inflammation in these organs, however great the quantity which they may have been called upon to dispose of; and inflammation of the renal excretory structures is an invariable concomitant of uræmic manifestations.

Eighth, if we assume that an excessive amount of urea in the blood is the essential causative element of uræmic phenomena, we must necessarily also assume that one of two antecedent conditions obtain, in order to account for its presence there; first, that the primary and initial lesion is the inflammatory process in the kidney, by reason of which the kidney is so crippled that it is unable to excrete the normal quantity, whereby the same is thrown back into the blood current—and there is no satisfactory evidence available to support this supposition; or, that some aberration of metabolic function causes urea to be elaborated in such quantities that the kidney is unable to excrete it—and, as we have seen, there is no conclusive evi-

dence available to indicate that urea is so present, that it would be possible for the organism to elaborate urea in sufficient quantity to produce this effect, or, again, that urea would be able in any *possible* quantity to produce the inflammatory renal pathology which is always observed in this disease. These facts are vital, and any theory which does not satisfy their claims is not entitled to unmodified acceptance.

Therefore it would appear that there is justification for looking for something, besides urea, as the direct exciting cause of uræmic phenomena, and as inflammation of the kidney structures, which would partake of the nature of an external factor, can be disregarded as a *primary* cause, we must look for the origin at the other end of the equation, that is, *within* the body. Now, urea is a substance of a moderately high degree of oxidation, and as the clinical phenomena of Bright's disease by no means *constantly* indicate that *excessive* oxidation is taking place, we must consider that it is among the *suboxidation* products or structural antecedents of urea, that we may expect to find the characteristic toxine.

Finally, it will be instructive in this connection, to ascertain whether or not the actions of remedial measures which have hitherto been found useful, will shed any light upon the subject. This point may be disposed of very briefly, and as follows. Every therapeutical measure that has attained a lasting place in the popular management of this disease, has exerted its principal influence toward the induction of one or more of the following effects, viz.: Increased elimination, as by diuresis, diaphoresis, and purging; dilution of the body fluids, whereby the effect upon the nerve centres of a toxine in the circulation would be lessened, as by increasing the amount of water ingested, milk diet, etc., and by bleeding, which secures practically the same result as far as the toxine is concerned, but in another way; as bearing more particularly upon the question of whether or not the toxine is a suboxidation product, lessening the amount of metabolic elaboration demanded of the trophic nerve centres, as by restriction of the diet; and lastly, stimulation of metabolism, which in this connection means oxidation, by the administration of iron and other general tonics and the prescription of judiciously chosen exercise. Another fact bearing upon this point is the well-known evil influence upon the victims of Bright's disease, of any agent which exhibits a tendency to check oxidation or metabolism, as alcohol, coal tar derivatives, etc.

We find, then, that Bright's disease is a condition characterized by, and the clinical phenomena of which are probably due to a severe systemic

toxæmia of some sort, and that the toxine concerned is probably a suboxidation product which would normally be elaborated into urea. The occurrence of suboxidation means, of course, impaired metabolism, and impaired metabolism implies inefficient functioning of the sympathetic nerve centres, because it is under and through the control of these centres that metabolic processes are elaborated.

The object of treatment in Bright's disease, as indicated by the clinical phenomena and what is known of the pathology, would be, then, to secure, first, an increase in vigor in the functioning of the deep trophic nerve centres, impairment of which is probably responsible for the presence in the body of toxic products of imperfect metabolism; second, a direct increase of the oxidation processes in the body, whereby it will be possible to elaborate the chemical structure of the toxic bodies to a point which will admit of excretion without irritation, in other words, to oxidize them into urea; and third, to secure as active an elimination as possible in order that the system may be relieved of as much of the toxine as possible in the shortest possible time.

In order to ascertain how dry hot air is likely to compare with other measures in its power to assist us in the attainment of these objects, it will be necessary to consider, first, its physiological action upon the normal human body. There are two varieties of dry hot air applications, the "local" treatment, where only a small portion of the body is affected, and the "general," or "body treatment," where the whole or greater part of the body surface is subjected to influence. The physiological effects of these two varieties of application differ from each other in degree and in kind, but as the "local treatment" is of little use in the management of Bright's disease, we will confine our consideration, if you please, entirely to the "general" or "body" application.

The physiological influence of this measure is predominantly reflex through the spinal sympathetic, the area of skin treated being so great that the capillary circulation is able to dissipate the heat before it penetrates deeply enough to exert its action directly to any great extent, herein differing from the local application.

Microscopical and chemical examinations have demonstrated that the following phenomena are susceptible of immediate induction by the body hot air treatment:

First, if hyperleucocytosis is not already present, the number of white blood corpuscles is increased in different cases from fifteen to fifty per cent. If it is present, the increase is usually not so great, or it may be entirely nil.

Second, and here the matter begins to assume an aspect of special significance in the present connection, the red blood cells are increased from ten to twenty per cent.

Third, the quantity of urine passed in the twenty-four hours succeeding the treatment is usually increased from twenty-five to one hundred per cent. over that passed in the twenty-four hours preceding. In a few instances, not of renal disease, however, a decrease in the quantity has been observed.

Fourth, the quantity of urea excreted in the twenty-four hours succeeding the treatment is increased from fifteen to sixty per cent. over that excreted in the twenty-four hours previous.

These effects persist, with decreasing intensity, for from four to forty-eight hours and sometimes longer, the time varying in different diseases and with different patients.

It will be observed from the above that the beneficial effect of body hot air is not entirely due to the induction of hyperidrosis and superficial hyperæmia, as is frequently stated, but that its influence involves phenomena of much greater profundity than would be explicable upon such an hypothesis.

(To be concluded.)

THE TREATMENT OF ACUTE AND SUB- ACUTE ANTERIOR GONORRHOEA BY RETROGRADE INJECTIONS OF STRONGER SOLUTIONS OF SILVER.*

By HERMANN G. KLOTZ, M. D.,

NEW YORK.

(Concluded from page 1040.)

My experience with this method, particularly in the acute stages, has been almost entirely gained in private practice, to a certain extent in my service in the German Hospital, but only very little in dispensary practice. However, I think it is well adapted for such conditions and has proved itself so in the hands of some of the gentlemen present, who I hope will give a report on their experience. The few observations which are to illustrate the working of the methods are all of recent date collected since the publication of the article in the *German Archiv*.

Class I: Subacute Cases.

CASE I.—A. S., age twenty-four years, had several attacks of gonorrhœa since his sixteenth year; discharge began again seven weeks ago; was treated with injections of silver nitrate and later with potassium permanganate, but discharge has lately increased.

December 29, 1902. In the morning copious purulent discharge. Microscopical examination showed some epithelia, but principally pus cells, none enclosing cocci, a moderate amount of diplococci outside, second urine clear. Two injections of albargin, 2 per cent. Inj. B. P. Z.

January 1 to 4, 1903. Injections of albargin 2 per cent. and B. P. Z. repeated.

January 7th. In spite of repeated emissions, only a small quantity of fibrinous secretion, showing pus cells, but no cocci. Inj. $\frac{1}{4}$ and $\frac{1}{2}$ per cent. silver nitrate.

January 10th. In the morning scanty mucous secretion, fewer pus cells, epithelia, no cocci, first urine slightly cloudy, $\frac{1}{4}$ and $\frac{1}{2}$ per cent. silver nitrate.

January 13th. In the morning, since the 10th, a small quantity of fibrinous discharge, no pus cells, epithelia, some diplococci. First urine not perfectly clear. Albargin, 5 per cent.

January 16th. No abnormal sensations. After drinking there was a slight increase of secretion, but no cocci, no pus cells, few epithelia, urine somewhat cloudy from phosphates. Silver nitrate, $\frac{1}{2}$ to 1 per cent., syringe to 17th.

January 30th. Since yesterday morning, after great activity in business, renewed discharge with pus cells and numerous diplococci between cells. Second urine clear. Albargin, 5 per cent. As the patient has to go out of town for about a week, continue inj. B. P. Z. and 2 per cent. protargol every second evening.

February 2d. Stopped injections on January 27th, because they seemed to increase discharge; since then no discharge. First urine clear, with a few very fine threads, containing only epithelia, no pus cells, no cocci. Injection of silver nitrate, $\frac{1}{4}$ per cent., and no further treatment.

CASE II.—L. O., age twenty years, has been suffering with his first gonorrhœa for the last three months, in spite of treatment with medicines and injections, up to the day before yesterday.

December 10, 1902. Purulent discharge, abundant free diplococci imbedded in fibrinous substance, a number of pus cells with typical gonococci; urine cloudy, narrow meatus obstructed by several folds of mucous membrane. Albargin, 1 and 2 per cent., B. P. Z.

December 13th. Has seen but very little discharge, none present during visit. First portion of urine slightly cloudy, second clear. Albargin, 2 and 5 per cent.

December 17th. Has not syringed since yesterday morning; no secretion obtainable. First urine clear, with a few voluminous threads which contain some pus cells but no cocci. Albargin, 2 per cent., B. P. Z. continued.

December 22d. No discharge. First urine, insignificant cloudiness. Albargin, 2 per cent.

January 5, 1903. No syringing since the 30th, when all symptoms had disappeared; yesterday return of discharge; none during visit; urine clear. Albargin, 2 per cent. Zinc sulphocarbolate, 1 per cent.

January 14th. Saw slight discharge several times after cocktails; no injection since 11th, now no secretion visible; urine clear, a few threads without pus or cocci, only epithelia. Injection of silver $\frac{1}{2}$ per cent.

* Read before the Section of Genitourinary Surgery of the Academy of Medicine, New York, April 15, 1903.

January 17th. Noticed in the morning some whitish secretion, none during day. First urine not perfectly clear, but no cocci in sediment. Silver, $\frac{1}{2}$ per cent.

January 22d. Yesterday copious discharge, now a purulent drop squeezed out of deeper pendulous urethra, showing large number of gonococci outside and a few enclosed in pus cells; first urine cloudy. Albargin, 5 per cent., deep urethral and bulbar injections.

March 13th. Has not had any any more discharge; apparently well.

CASE III.—M. A., age thirty years, had a protracted gonorrhœa three years ago, but no trouble since up to five weeks ago, when a slight discharge was noticed; was treated with much medicine and injections; seemed well, but after intercourse on August 2, 1902, has noticed discharge again since the 4th.

August 7th. Fibrinous secretion with typical gonococci in pus cells. Albargin, 2 per cent., causes rather intense burning, B. P. Z.

August 8th. Trace of discharge, numerous epithelia, one cell with gonococci, urine clear. Albargin, 2 per cent., still causes burning.

August 9th. No discharge, no other symptoms. Albargin, 2 and 5 per cent.

August 11th. Trace of discharge, no pus, no cocci, urine clear. Albargin, 2 per cent.

August 14th. No injection since May 12th; in spite of drinking, no discharge; trace of fibrinous secretion with some gonococci inside and outside of cells. Silver nitrate, $\frac{1}{2}$ per cent.

August 16th. Trace of secretion; no pus, no cocci. Silver nitrate, $\frac{1}{4}$ per cent.

August 22d. No treatment since 18th; no discharge noticeable since 17th; no further treatment.

As there is no evidence that gonococci were present in the beginning, it remains doubtful whether Case III was really a subacute one, or whether the infection with cocci was due to the intercourse on August 22d, and the case belongs to the next class.

Class II: Acute Reinfection.

CASE IV.—R. S., age fifty-four years; has not had gonorrhœa since 1888; noticed discharge January 14, 1902, three days after intercourse; typical gonococci; urine clear. Albargin, 2 per cent.

January 15th. Very little discharge; urine perfectly clear; few single diplococci between pus cells. Albargin, 2 and 5 per cent., cause hardly any burning.

January 16th. Small quantity of clear, mucous secretion, some pus cells, no gonococci, urine clear. Albargin, 2 and 5 per cent., B. P. Z. until 17th, afternoon.

January 18th. Hardly any moisture obtainable, a few pus cells, epithelia, no gonococci, urine clear. Albargin, 2 and 5 per cent.

January 19th. Alarmed by copious discharge yesterday and trace of blood (due to a minute tear in orifice); no discharge; urine absolutely clear and free of filaments; no further treatment.

CASE V.—H. S., aged twenty-six years; first gonorrhœa five years ago, lasted six months; complicated by prostatitis. Soon afterward, second

gonorrhœa, of short duration. Last coitus, February 3, 1903. Noticed discharge on the evening of February 7th.

February 8th. Purulent discharge with typical gonococci in cells. Urine clear. Albargin, 1 and 2 per cent. Injection, B. P. Z.

February 9th. Very slight sensitiveness; slight, thin, grayish secretion in the morning before micturition; pus cells, some epithelia, no gonococci. Albargin, 2 and 5 per cent.

February 10th. No complaint whatever, trace of secretion, only epithelia, a few slender threads in urine. Albargin, 2 and 5 per cent., B. P. Z., to February 11th, P. M.

February 12th. No pain, etc. In the morning, before urinating, trace of secretion showing a few groups of pus cells, epithelia.

February 15th. No symptoms whatever since February 12th; drank some beer yesterday; trace of moisture with a few epithelia, urine clear. Albargin, 2 and 2 per cent.

CASE VI.—A. C. B., aged forty-one years; had prostatic gonorrhœa about two years ago; since then occasionally trace of discharge; examined in March, 1902, on account of sciatica, when the urine was found to be absolutely clear.

September 8, 1902, 10 P. M. After intercourse on the 4th and 7th inst. noticed a trace of discharge in the evening, purulent secretion with typical gonococci; clear urine. Injection albargin, 2 and 5 per cent.

September 9th, A. M. Very little discharge; pus cells, but no gonococci; urine clear. Albargin, 2 and 5 per cent., cause considerable burning, no other injection.

September 10th. Urethra felt quite sore, but not much secretion, only on squeezing some moisture obtained; pus cells, but no gonococci. Injection of silver nitrate, $\frac{1}{4}$ per cent., causes no pain; B. P. Z. until to-morrow morning.

September 11th. Trace of discharge, a few pus cells and a single nest of diplococci. Silver nitrate, $\frac{1}{4}$ and $\frac{1}{2}$ per cent., somewhat sensitive during urinating.

September 16th. No treatment since 13th. Trace of watery discharge, some epithelia, no gonococci, some other microbes, a few pus cells. Injection of 10 per cent. airol. No further treatment.

These three cases are representatives of a large number of similar observations, some running even a shorter course, some lasting a few days longer, but rarely has the disease extended over more than two weeks, if the treatment began early enough, and only exceptionally has the deep urethra been affected.

Class III: Acute Primary Cases.

CASE VII.—W. A. L., aged twenty-five years; syphilis in 1898, but never before gonorrhœa.

July 11, 1902. Has noticed some discharge since yesterday, purulent secretion with typical gonococci in and between pus cells. Albargin, 2 to 5 per cent., B. P. Z.

July 12th. Very little secretion, pus cells, no cocci, urine clear. Albargin, 2 to 5 per cent.

February 14th and 15th. No disagreeable sensations in urethra, discharge thin, pus cells, gonococci

in small numbers inside and outside of cells. Albargin as above.

July 18th. More thin, purulent discharge since yesterday; gonococci in moderate quantities, some cells full of cocci. Albargin. The same July 19th.

July 21st. Erection causes some pain in glans; pus thicker, few gonococci, mostly between cells, second urine clear. Injection of silver nitrate, $\frac{1}{4}$ per cent., not painful; same 22d and 23d.

July 24th. Thin, purulent discharge continues; few cells with gonococci. Irrigation with potassium permanganate 1:2000.

July 25th. Discharge reduced, trace of gonococci. Irrigation with silver nitrate, 1 to 500.

July 28th. No soreness, but some increase of desire to urinate; urine slightly cloudy, discharge thin, a few cells containing gonococci. Injection of silver, $\frac{1}{4}$ to $\frac{1}{2}$ per cent. to bulbus.

July 30th. Gray, thin discharge, trace of gonococci, two or three cells enclosing one or two diplococci; second urine cloudy, mostly from phosphates. Silver nitrate, $\frac{1}{2}$ per cent. deep, and 1 per cent. to the bulbus.

August 1st. Very little watery discharge, few pus cells, epithelia, no gonococci, urine almost clear. Silver nitrate, $\frac{1}{4}$ to $\frac{1}{2}$ per cent.

August 4th. In spite of great activity (tennis, etc.), very little discharge, a few gonococci in fibrinous substance, one cell full of gonococci. Albargin, 2 and 5 per cent.

August 6th. Very little secretion, no sensitiveness; Albargin, the same.

August 8th. No discharge; in the first urine a few thin threads free of cocci, mostly epithelia, a few degenerating pus cells. Silver, $\frac{1}{4}$ and $\frac{1}{2}$ per cent.; no further treatment.

August 26th. Urethra shows no signs of disease.

CASE VIII.—E. K., aged twenty-six years, noticed burning and itching in urethra four days ago, about week after exposure. Used some injection for two days (protargol?).

January 7, 1903. Orifice red, swollen, and somewhat indurated, scanty discharge, few pus cells, a few isolated diplococci, no urine; some suspicion of chancre of meatus. Albargin, 1 and 2 per cent., B. P. Z.

January 10th. Orifice much less red, but still hard and swollen, with a few superficial fissures, little discharge, hardly any pain. Albargin, 1 and 2 per cent.; zinc ointment for orifice.

January 12th. Looks very favorable; slight mucous discharge, pus cells and epithelia, no gonococci; urine clear in both portions. Silver nitrate, $\frac{1}{4}$ per cent.

January 15th. Did not see any discharge up to 14th; stopped injection; since this morning copious purulent discharge with numerous typical gonococci inside and outside of cells, first urine slightly cloudy. Albargin, 2 and 5 per cent.

January 17th. Little to be seen or felt, no discharge; first urine slightly cloudy, sediment (by centrifuge), mostly epithelia, few pus cells, two groups of diplococci. Albargin, 2 and 5 per cent.

January 20th. Trace of yellowish secretion; pus cells; here and there single diplococci. Albargin, 2 and 5 per cent.

January 23d. No discharge; first urine clear; one filament, no gonococci. Albargin, 2 and 5 per cent. Injection, B. P. Z., to January 25th.

January 27th. No discharge; cloudiness of urine from phosphates. Albargin, 2 and 5 per cent.; injection to 28th.

January 31st. Some watery secretion, only epithelia, urine perfectly clear. Injection of silver, $\frac{1}{4}$ per cent.; no further treatment.

CASE IX.—January 28, 1903.—E. F. S., aged twenty-eight years, noticed some whitish discharge four days after intercourse; copious pus cells and typical gonococci; first urine almost clear. Albargin, 1 and 2 per cent., somewhat painful. B. P. Z.

January 29th. Small quantity of whitish secretion, moderate number of pus cells and epithelia, no gonococci, trace of cloudiness in first urine. Albargin, 2 per cent.

January 30th. Very scanty secretion, transparent, no gonococci, epithelia in increased numbers, pus cells, both urine portions perfectly clear. Albargin, 2 per cent., hardly any sensation.

January 31st. Trace of watery discharge, pus cells prevailing over epithelia, no gonococci, first urine slightly cloudy. Albargin, 1 and 2 per cent., a trifle of blood oozing after injection.

February 1st. Meatus somewhat irritated, bleeding; yesterday some discharge of brownish color; erections frequent and slightly painful near meatus; discharge watery; urine clear. Injection of 10 per cent. arol. No B. P. Z.

February 2d. No blood; orifice still tender; slight watery secretion, no gonococci, few pus cells, epithelia, urine clear. Albargin, 1 per cent.

February 3d. Very little complaint; secretion slight; no gonococci; urine clear with one thin thread. Silver nitrate, $\frac{1}{8}$ per cent. Injection of bismuth nitrate, 6 to 120.

February 4th. Slight pain with erection; some watery discharge, mostly pus cells; no cocci; urine perfectly clear. Silver, $\frac{1}{4}$ per cent. Bismuth continued.

February 5th. This morning, trace of blood, some watery fluid; urine perfectly clear; no injection; zinc ointment.

February 6th. No discharge; urine clear, with a few very thin threads. Silver, $\frac{1}{4}$ per cent.; no injection whatever.

February 13th. Stayed at home on account of grippe; trace of mucus; no gonococci, but several pus cells; urine clear, a few thin threads. Injection of copper sulphate, 2-3 per cent.

February 18th. Noticed some discharge in the morning after erection; nothing to be seen at visit; urine perfectly clear, a few small flakes containing a few pus cells, no cocci. Injection of copper sulphate, 1 per cent.

March 8th. Has not seen any discharge since 18th; urine perfectly clear, one fine thread; treatment had been stopped for some time.

This patient was extremely anxious to be cured as quickly as possible, and therefore furnished ample opportunity of closely watching the progress of the disease, and of finally ascertaining the result after more than five weeks. The slight bleeding and irritation of the meatus were principally due to a very tight meatus. Otherwise the patient hardly knew that he had the disease. After the first day gonococci were never found again. The trouble was practically cured on the ninth day.

CASE X.—E. M. H., twenty-eight years old, had never before had gonorrhœa. Frequent intercourse lately up to March 30th. Noticed some ominous symptoms last evening.

March 31, 1903. Purulent erection, typical gonococci in cells; second urine clear. Albargin, 1 and 2 per cent., somewhat painful. B. P. Z.

April 1st. Burning was moderate, small quantity of fibrinous fluid, pus cells, none inclosing gonococci; several diplococci; first urine slightly cloudy. Albargin, 2 and 5 per cent., not much pain.

April 2d. Was rather sensitive last night, with trace of blood, trace of purulent discharge, a few cells with gonococci, urine cloudy from phosphates. Albargin, 2 per cent. Continued injections to 4th.

April 4th. No subjective trouble, very little discharge, few cells with small numbers of gonococci. Silver, $\frac{1}{4}$ and $\frac{1}{2}$ per cent. Injection to 6th.

April 7th. No trouble; after three and a half hours trace of discharge, mostly epithelia mixed with pus cells, no gonococci in cells, single diplococci of doubtful character; first urine clear. Silver, $\frac{1}{2}$ per cent. Injections, B. P. Z., to 9th.

April 10th. Has not seen or felt anything since 7th; stopped all treatment since morning of 9th; no trace of discharge, urine absolutely clear. Silver nitrate, $\frac{1}{4}$ per cent. injection to next morning.

April 13th. After emission some discharge since yesterday; on account of sediment of injection, specimen not satisfactory; epithelia and pus cells, but no cocci. Injections of silver, $\frac{1}{4}$ and $\frac{1}{2}$ per cent. until to-morrow afternoon.

April 21st. Patient reports that he has not seen any discharge since, although he had sexual intercourse on the 18th. No trace of discharge; urine perfectly clear, with one very thin thread.

Although the gonococci were still found on the fourth day of the treatment, the infectious part of the disease was evidently cured on the tenth day, certainly a very satisfactory result.

As I have stated before, these primary cases are by far the most important and the most convincing. The first one occurred under unfavorable conditions. The patient was living out of town and would not entirely abstain from tennis playing and similar exercises. Still, in spite of a passing affection of the posterior urethra, he was cured at the end of four weeks. In the other cases the results are certainly highly satisfactory; in the second case the true condition was somewhat obscured in the beginning, so that the treatment was at first more tentative, but the patient was well in twenty days. In the third case the infection was probably cured on the first day, as gonococci could never be found again; the tight orifice was the cause of some local irritation, which was responsible for the continuance of some secretion. The last two cases show, as well as some of the acute reinfections do, that under favorable circumstances this method of treatment may abort the gonorrhœal infection. Nevertheless, I do not wish to introduce it as an abortive one, but I am satisfied to recommend it

as one which may cure many cases in a very short time, more quickly than, or at least as quickly as, any other method, particularly if the patients come under treatment soon after infection; and even if a rapid cure is not effected, the symptoms can be considerably reduced, most of the disagreeable symptoms can be avoided, the infection restricted to the anterior urethra, and complications from the glandular organs and the bladder, probably also gonorrhœal rheumatism, generally prevented. In comparison with other methods, particularly with Janet's irrigation, I am satisfied that this method is founded on a correct principle—that of directly destroying the gonococcus—that it is very simple; does not require any cumbersome or complicated apparatus; that it is very clean, both for the patient and for the physician; and that it requires much less time, not only for the single application, but also for the entire treatment. Although the treatment is simple it cannot be left to the patient alone, as it requires the judgment of the physician to decide in every single case on the selection of the preparation, its concentration, and mode and frequency of application. That it leaves the important part of the treatment in the hands of the physician I consider an advantage to the patient, rather than a disadvantage, as the former is better enabled to control the patient and the disease; the possible greater expense at the outset of the disease will be amply compensated for by the shortening of the treatment.

I am well aware that many prominent urologists are still adverse to any early local treatment, and strongly advise against injections and against all efforts at checking the disease in the early stages. I cannot agree with these gentlemen on principle. I need not say before you that gonorrhœa is not a trifling affection, from the standpoint either of the physician or of the patient. It is undoubtedly an infection, but merely a local one in the early stage. We can surely avoid most of the immediate and remote dangers of the disease if we remove or destroy the irritant and infecting microbe during this period. There is no good reason why this should not be possible without injury to the organ which is the seat of the disease. This we must try to accomplish, and must not desist in our efforts until we do so. So soon as we can show that we can successfully treat and control the disease, provided we have the opportunity of seeing it during an early stage, the patients will certainly take notice, and will go to their physician as soon as they feel the first suspicious symptom, and will advise their friends to do the same. This has already been my experience. But so long as we allow the patients to

drift along for several weeks without any energetic effort, giving medicines, and perhaps some injection in the effectiveness of which we hardly believe ourselves, we should not be surprised that so many do not apply to a physician or to a specialist for treatment, but go to the druggist or the quack, or use some patent medicine or some friend's prescription. It is obvious that no one method of treatment will prove satisfactory in all cases, and that no method will ever be *the* method or the only one, but in urging you to give this method a fair trial I feel convinced that to some, at least, it will be satisfactory.

42 EAST TWENTY-SECOND STREET.

A VISIT TO NAHA HOSPITAL,

LOO CHOO ISLANDS.

By J. A. GUTHRIE, M. D.,

SURGEON, U. S. ARMY,

During the early spring of 1903 our ship anchored off Naha, Okinawa Ken, Loo Choo, or Liu Kiu Islands, having previously been to the picturesque Isle of Oka, one of the many in the chain stretching from Formosa to Kinshu. As is customary when first visiting a foreign harbor, I was sent on shore to look into the sanitary condition of the place and to discover what facilities were offered for medical and surgical accommodations. It was while making this investigation that I saw the quaint one story native house used by the local doctors as a hospital. Inasmuch as Naha (the supreme government seat for all the Loo Choos), has not been visited by our American medical officers since the Perry expedition, in 1853, my opinion formed upon first sight was that many changes had necessarily occurred since then. I was most favorably impressed with the cleanliness of its streets, and with the neat appearance of its houses and people. These streets are, in the main, wide and airy and exceptionally well paved (the Macadam method being improved upon), consequently there is a firm surface well adapted to thorough drainage. However, with this apparent surface drainage, no filth is observed upon the public thoroughfares, a markedly different condition from that obtaining in the towns in China, where the same condition exists in its most virulent form. The Japanese do not throw their offal into the streets, and the rains, therefore, carry off all accidental deposits very rapidly.

Naha Hospital is managed by civil and municipal directors; the former consist of all the medical profession, and they practically run the institution. These civil directors, moreover, conduct

within the same building quite an efficient medical school of over one hundred students.

The building was originally a rectangular hollow square, with quite a large interior court. Since the organization of the medical school this court has been encroached upon for additional rooms to be used as lecture halls, laboratory, and so forth. There are no heavy partitions separating these several compartments. The typical Japanese partition—a light bamboo framework covered with paper—is all that intervenes between medical student and patient. Fronting the street is the most imposing aspect of the hospital. Here is the entrance leading on either hand to offices, operating room, and living quarters for officials. Further back we are ushered into the sick rooms, capable of accommodating from sixty to seventy patients, and inside of these rooms and facing the interior court, is the medical school. There are no large wards, such as we Westerners are accustomed to in a hospital; each patient has a separate room. However, the thin walls are made to slide, so as to throw several of these small rooms into one large one, making it possible for a patient to have a room any size desired, and as much air space as his pocketbook can afford. In other words, it is convenient to enlarge or contract your room, with no trouble to speak of, merely by sliding about these screen like walls.

Likewise, the number of trained nurses detailed for patients is regulated by the price paid; the more ministering to their caprices or wants, the more money must be handed over. These nurses are all women, the dainty *petite femmes* of Japan. They make excellent attendants upon the sick and exhibit an aptitude not excelled by their Western sisters. They are exceedingly quiet and neat, smiling often, but speaking only when necessary, and with a certain amount of astuteness that is fascinating and soothing. Observing them as they silently *trot* about in their white gowns and caps of European pattern (for they have discarded the kimono and bare legs), save for the characteristic national caste of feature, one might at first take them for graduates of Bellevue. A very good Japanese custom is to remove the shoes before entering a house; here, in the hospital, this custom is religiously adhered to; and surely they are right, for who can tell what an amount of infection there is on the soles of our shoes? These nurses wear cotton cloth half-hose to protect their stockings while working indoors; the rest of their attire, I cannot definitely describe, being unacquainted with most of the femininities of dress. Sufficient to say, the *tout ensemble* is as tasteful, pure, and refined, as it could possibly be.

To offset all this genuine cleanly appearance of the nurses, are the operating robes of the doctors and medical students. One is not so favorably impressed with their black sombre gowns (dissecting gowns). A thorough baking followed by boiling, followed by their consignment to a laundry, might eradicate the stains of former scenes of bloodshed; but, in my opinion, the best plan would be to relegate them to a garbage crematory and buy new ones. The operating room, too, was not up to date in antiseptic cleanliness; its fixtures, instruments, and appliances suggest a lack of care, and many valuable instruments were rapidly deteriorating from this cause. Here were found the very best and most recently improved styles of modern surgical tools, and, I was greatly surprised to discover, all were made in Japan. The perfect finish, accuracy of design, and excellent workmanship observed after careful inspection by myself, of these instruments of Japanese manufacture, bespeak a great compliment to Japan's half century of adoption of the Western methods that have grown up in our own world only after centuries of experience.

Although this hospital, at the time of my visit, did not come up to our standard of efficiency, still, I could see that a spirit of steady improvement was in progress, and I have every reason to believe that ere long it will become a first class institution. The only method of heating was by means of charcoal burners; candles and a small allowance of oil lamps furnished light, making emergency work at night very unsatisfactory to the operator. The building is a one story bungalow, very frail in structure; so it would hardly be practicable to put in a modern heating and lighting plant; it would be best to build a new and substantial hospital and tear down the old one if such improvements are contemplated. The class of diseases amongst the patients seen by me was not out of the ordinary, with the exception, perhaps, of some half dozen cases of elephantiasis of the male and female pudenda.

The attempt to establish a modern working hospital in these outlying islets of Japan, however, shows that among the natives, necessarily behind the times compared to their brethren of the larger group, Japanese thrift and civilizing influences are taking a strong hold, and we may anticipate for the little Island of Okinawa a bright future. It is a picturesque mountainous spot, with a delightful climate the year round, and some day not only will it be sought by valetudinarians throughout the empire, but its salubrious atmosphere will be renowned the world over.

Correspondence.

LETTER FROM MONTREAL.

The League for the Prevention of Tuberculosis.—The Medicochirurgical Society of Ottawa.—The Lengthening of the Medical Course in Quebec.—A New Fellow in Pathology at McGill.—The Medicochirurgical Society of Montreal.

MONTREAL, November 14, 1903.

At a recent meeting of the executive committee of the League for the Prevention of Tuberculosis the question of a dispensary in connection with the work of the league was brought up, but a decision was postponed until the annual meeting. The league proposes to have a sanatorium erected at Trembling Mountain, near Montreal, and for the purpose they are seeking 450 acres from the government of the Province of Quebec. The report of the investigation committee was submitted, and it showed that since May 15th last 103 cases had been dealt with, and that at the present time about 79 cases were being looked after, eight of which were in the country and the rest in the city. The report of the publication committee showed that there had been advantageous results from the distribution of literature upon the subject of tuberculosis and its prevention.

The new Medicochirurgical Society of Ottawa, which has resulted from the two existing medical societies at the capital, held its first regular meeting on the evening of the 5th of November. Of this society Sir James Grant is the honorary president and Dr. H. B. Small the president. The principal event of the evening was Dr. Small's presidential address. He took for his subject Medical Memories of Bytown, which was the name of Ottawa before that city was selected as the capital of the Dominion. Dr. Small gave a remarkably accurate series of biographical and character sketches of Bytown's first physicians, the earliest outbreaks of epidemics, and the beginning of the different hospitals. The following are the officers of this society for 1903-1904: Honorary president, Sir James Grant; president, Dr. H. B. Small; vice-presidents, Dr. C. P. Dewar and Dr. R. E. Webster; secretary, Dr. C. H. Brown; treasurer, Dr. H. S. Kirby; curator, Dr. Gilbert Royce; librarian, Dr. James Seagar; council, Dr. Horsey, Dr. Mines Troy, Dr. Echlin, Dr. Chabot, and Dr. Basken. The society meets on the first and third Thursday of each month.

The medical course for the Province of Quebec is to be lengthened to five years. British licenses will no longer be recognized in the Province of Quebec, but will be banned. This decision was arrived at at a recent meeting of the College of Phy-

sicians and Surgeons of Quebec. The college also decided to ask the legislature to enact that a B. A. degree or a *cours classique complet* should be adopted as a prerequisite to the admission of a student to the study of medicine in this Province. It is understood, however, that this B. A. qualification will apply only to French candidates. By these changes the students of McGill University will not be particularly affected, but the students of French Canadian colleges will be hit rather hard, as the new regulation means that they will practically be obliged to spend nine or eleven years in study before they can enter upon the practice of their profession. The medical faculty of McGill is thoroughly in accord and in complete sympathy with the board's proposal with respect to the lengthening of the medical course.

At a meeting of the faculty of medicine of McGill University, Montreal, on Saturday, the 7th of November, Dr. Klotz, of Ottawa, was recommended to the governors for appointment as governors' fellow in pathology at McGill. Dr. Klotz is a graduate of Toronto University, and has for some time past been conducting experiments in bacteriology at the Ottawa Isolation Hospital. The appointment will be officially made at the next meeting of the board of governors.

The Medicochirurgical Society of Montreal opened the session of 1903-1904 on the evening of October 2nd with a smoking concert. The following officers were installed during the evening, and the president delivered the annual presidential address: President, Dr. H. S. Birkett; vice-president, Dr. J. A. McDonald; treasurer, Dr. A. T. Bazin; secretary, Dr. A. M. Forbes; trustees, Dr. Joseph Perrigo, Dr. James Jack, and Dr. F. J. Shepherd. The season of last winter was a very successful one, there having been twelve regular meetings, with an average attendance of forty. At these meetings ten papers were read, thirty-four cases reported, and a large number of patients shown.

Therapeutical Notes

For Bronchitis in Children.—Fenwick (*Outlines of Medical Treatment*) gives the following:

- R Potassium bicarbonate.....40 grains;
- Citric acid.....20 grains;
- Wine of potassiotartrate of antimony...1½ drachms;
- Wine of ipecac.....20 minims;
- Syrup of lemons.....2½ drachms;
- Water2½ ounces.

M. Ft. mist. A dessertspoonful every three or four hours, for a child two years old.

For Paralysis Agitans.—M. Bourneville, according to the *Revue française de médecine et de chirurgie* for November 9th, injects one cubic centimetre (15 drops) of the following solution:

- R Fowler's solution.....10 grammes (150 minims);
- Distilled water } of each...5 grammes (75 minims).
- Neutral glycerin }

M.

Treatment of Chronic Otorrhœa.—*Journal de médecine de Paris*, for June 14, 1903, quotes Mérière as recommending highly in otorrhœa, carbolic acid and glycerin. After the ear has been well rinsed with hot water, the following is painted on:

- R Crystallized carbolic acid.....1 to 5 grammes (15 to 75 grains);
- Pure glycerin...5 to 10 grammes (75 to 150 minims).

M. For the ear.

When the discharge lessens, the following should be substituted:

- R Pure glycerin.....10 grammes (150 minims);
- Mercury perchloride.....5 to 25 centigrammes (¾ grain to 3¾ grains).

M. Ear application.

The carbolated glycerin also relieves pain, and Hewetson reports good results in otalgia.

For Chronic Pharyngitis.—The *Clinical Journal*, for November 11th, gives the following:

- R Iodine6 grains;
- Potassium iodide.....12 grains;
- Peppermint oil.....8 minims;
- Glycerin1 ounce.

M. To be applied with a camel's hair brush.

For Baldness.—Lassar, in *Nouveaux Remèdes*, for July 24, 1903, gives the following:

- R Pilocarpine hydrochloride...2 grammes (30 grains);
- Quinine hydrochloride.....4 grammes (60 grains);
- Precipitated sulphur.....10 grammes (150 grains);
- Peruvian balsam.....20 grammes (300 grains);
- Beef marrow, enough to make.....100 grammes (3½ ounces).

M. For an ointment; apply mornings, after washing scalp with soap and water.

Chancre.—*Medical Press*, for November 11, 1903, gives Barthelemy's treatment. After washing the parts with a solution of silver nitrate one in fifty, apply the following ointment:

- R Mercuric ammonium chloride.....20 grains;
- Resorcin10 grains;
- Vaseline4 drachms;
- Lanolin1 drachm.

M. For an ointment.

Chronic Hepatic Cirrhosis.—Robin's treatment is detailed in *Journal médical de Bruxelles*, for October 29, 1903. As a vascular stimulant, he gives:

- R Potassium iodide.....5 grammes (75 grains);
- Strychnine sulphate...3 centigrammes (½ grain);
- Distilled water.....30 grammes (10 ounces).

M. ½ Tablespoonful before the two principal meals.

To stimulate biliary secretion, he adds:

- R Sodium benzoate.....25 centigrammes (3¾ grains);
- Sodium phosphate...50 centigrammes (7½ grains);
- Jaborandi leaves, powdered.....10 centigrammes (1½ grains).

M. One such capsule, 3 hours after meals.

The bowels must be kept open by aloes and subsequent enemata. For oliguria, theobromine, in seven and a half grain doses every hour for three days, is valuable. It should be mixed with an equal quantity of sodium phosphate. If this fails, potassium acetate and nitrate with squills should be tried. For ascites, tap. For hæmorrhage of any kind, use calcium chloride:

- R Calcium chloride.....4 grammes (1 drachm);
- Elixir of opium.....30 grammes (1 ounce);
- Extract of linden leaves...120 grammes (4 ounces).

M. Tablespoonful every hour till hæmorrhage ceases.

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OBSESSION BY A DOMINANT IDEA:

BAYLISS *V.* COLERIDGE.

Probably no more important happening in the interests of true humanity has occurred within recent years than the trial in England of the case of Bayliss *v.* Coleridge, and its result.

The Honorable Stephen William Buchanan Coleridge, a member of the English Bar and a son of a previous Lord Chief Justice of England, has been for many years the zealous honorary secretary of the Antivivisection Society in that country. He has engaged in numerous controversies with the advocates of physiological science, in which controversies the scientists, as a rule, have made by no means the worst showing, not only as regards accuracy and information, but also as regards courtesy, and even common decency. Dr. Bayliss is assistant professor of physiology at University College, London, and he holds a permit under the Vivisection Act to perform certain experimental demonstrations on animals, subject to clearly defined restrictions. These restrictions are, that no demonstration involving animal experimentation shall be made for teaching purposes unless the animal is so anæsthetized as to be insensible to pain, and unless it is necessary for the due instruction of persons to whom such lectures are given with the view of their acquiring physiological knowledge.

Now, on February 2nd of the current year, Dr. Bayliss, in a lecture at University College before some sixty or seventy students from various medical colleges, performed an experiment the purpose of which was to demonstrate that the pressure at which the saliva was secreted was greater than the blood pressure in the arteries in the salivary gland—a matter, of course, affecting the entire physiology of secretion.

At this lecture were present two Swedish lady students of the London School of Medicine for Women. They were also honorary secretaries of the Swedish Antivivisection Society, and their main object, on their own showing, in entering on the physiological course had been to look for "antivivisection" material. They made no protest at the lecture, nor was any protest or sign of disapprobation manifested by anyone. These ladies, according to the testimony of Mr. Coleridge, came to him and read to him passages from a manuscript that they had prepared for publication as a book or a series of newspaper articles. Mr. Coleridge was particularly struck by the account of Dr. Bayliss's demonstration. At the request of Mr. Coleridge the ladies drew up a statement relating to that lecture and affirmed their willingness to support it on oath, if required.

Nothing transpired until May 1st. Then, at the annual meeting of the Antivivisection Society, without having communicated in the interim with Dr. Bayliss, the person he was about to accuse of a criminal offense, and even, according to his own testimony, without having made a single inquiry—either to verify for his own satisfaction, or even to find corroborative evidence for, the unsupported statements of these ladies—Mr. Coleridge sprang upon his sympathetic auditors the following sensational statement of "eye-witnesses" to what was therein alleged:

On February 2nd this year I saw an experiment by Dr. W. M. Bayliss on a dog at this laboratory. A big brown dog of the terrier type was brought into the lecture room stretched on its back on the operation board. Its legs were fixed to the board, the head held firmly in a head holder, and it was muzzled so tightly that it was now deprived of every power to give audible expression of pain. In the skin of the abdomen there were several scarcely healed scars and wounds; on one of them that seemed rather fresh there were left a pair of clamping forceps. It was evidently not the first time that the dog had had to serve science. The internal organs of the abdomen had surely had their turns of operations in previous experiments. The neck was

opened widely for the stimulation by electricity of a certain gland. The dog struggled forcibly during the whole experiment, and seemed to suffer extremely during the stimulation. No anæsthetic had been administered in my presence and the lecturer said nothing about any attempts to anæsthetize the animal having previously been made. When an anæsthetic has been given good care is generally taken to tell the audience about it; and, as a rule, the anæsthesia must be kept up by repeated administration of the anæsthetic used. Nothing of the kind was done here and the violent and purposeful struggles of the animal indicated complete consciousness. The dog was carried out still fixed to the board after half an hour.

After reading this statement, Mr. Coleridge asked his audience "Is not this enough to make the blood run cold? If this is not torture, let Mr. Bayliss and his friends—Lord Lister and Sir Victor Horsley—tell us in Heaven's name what torture is."

Now, the failure to observe the requirements of the certificate concerning anæsthesia is a criminal matter, and involves a penalty of £50 for the first offense and of £100 for the second, together with a liability to imprisonment. This charge, therefore, was the imputation of a criminal act, made as publicly as possible, and fully reported in the *Daily News* of the following day, as Mr. Coleridge deemed it important to announce at the meeting that it would be.

Dr. Bayliss very properly brought an action for libel, and the case came to trial before Lord Alverstone, the Lord Chief Justice of England, and a special jury, and lasted from the 11th to the 18th of November. No corroborative evidence as to the truth of the statements was submitted by Mr. Coleridge beyond the assertions of the two ladies in question, although between sixty and seventy persons were present at the demonstration. On the other hand, Professor Starling, F. R. S., and Dr. Bayliss both swore to the fact, and described the method, of anæsthetization with morphine and the intratracheal administration of the A. C. E. mixture, and their testimony was corroborated by the laboratory attendant, by Dr. Henry Dale, George Henry Lewis Student in Physiology, Janet Lane Clayton, gold medallist and scholar in physiology of the University of London, Ella Mabel Parker and Eleanor Lowry, students of the London School of Medicine for Women, and Douglas Hume and George Woodford, students of St. Bartholomew's Hospital, all of whom were present at the demonstration in

question, and testified that the animal was clearly unconscious, that the process of anæsthetization was seen by them, and that the animal displayed no purposive movements, and neither struggled nor shrank as had been alleged. "Sir Victor Horsley, F. R. S., and Professor Langly, F. R. S., testified to the absolute importance of such demonstrations for the adequate teaching of physiology, and with Mr. Frederick Hobday, lecturer on therapeutics at the Royal Veterinary College, bore witness that anæsthesia, administered as described, would be effective to prevent suffering. Yet Mr. Coleridge had the effrontery to say in the witness box that he still believed the statements of the two lady witnesses, notwithstanding the denial on oath of the defendant, and all the corroborating testimony.

The summing up of Lord Alverstone, whose impartiality has so recently been made evident to us in this country, was a model of lucidity and fairness. The intelligence of the jury displayed itself in the fact that it took them only twenty-five minutes to arrive at a unanimous verdict which condemned Mr. Coleridge to pay \$10,000 damages.

We may, perhaps, learn some very pregnant lessons from a consideration of this case. Mr. Coleridge is a gentleman possessed of the advantages of a legal training, holding an official position, the descendant of a line of jurists, and a man personally of culture and education. Yet, when he becomes possessed with a mania, he fails as a gentleman, because courtesy and a desire for truth demanded that he should first give Dr. Bayliss a chance of disproving the unsupported statements of two admittedly prejudiced witnesses, before publicly making charges of criminal behavior against one whom he admits to be, so far as he knows, perfectly upright, save for the fact that he holds views differing from those of Mr. Coleridge on the ethics of animal experimentation. He fails, moreover, jurist though he be, in that he took no steps to verify the statements of those prejudiced witnesses; he took no steps to find other witnesses, out of a crowd of sixty or seventy possible ones, who could corroborate them. He did not even attempt to substantiate what might have proved a strengthening *obiter dictum*, his assertion that the cries of the tortured

animals in the physiological lecture room were frequently heard by the students in the adjoining Slade School of Art. He fails as a strategist, because the criminal conviction of Dr. Bayliss, which would undoubtedly have followed a prosecution had the alleged offenses been provable, would have been a far more efficient aid to the cause he champions than the cheap triumph of a sensational speech at a meeting of hysterical sympathizers; and finally, he fails as a man, because even when indisputably proved to be wrong, instead of openly retracting and admitting that he had been misled by inaccurate information, he persists in his error to the last, and vilifies men of established reputation against whom he admits the knowledge of no other stigma than that they hold the views he is pledged to combat, by practically accusing them of a conspiracy to perjury, and intimating that he would not believe them, even on oath, in such a matter.

We have seen too much of fads and faddism of all kinds, of antivivisection, antivaccination, Christian Science, anti-antitoxinists, *et hoc genus omne*, to hope that any number of object lessons, however striking, will lead the faddist one step in the direction of reason. But we do hope that such palpable instances as this, of their hopeless untrustworthiness, will have some weight with the vast mass of the intelligent public, who, necessarily lacking time and opportunity for a complete investigation of such matters themselves, have no option but to choose between one or other of the contending claimants to knowledge, and will lead them to realize to what lengths of self-stultification professional "oppositionism" can lead its devotees.

DISTRICT BRANCHES OF THE AMERICAN MEDICAL ASSOCIATION.

The radically revised constitution and by-laws adopted at the Memphis meeting of the Mississippi Valley Medical Association have now been published. It is declared in an article of the constitution that the purpose of the association shall be "to federate and bring into one compact organization the entire medical profession of the Mississippi Valley and to unite with similar district associations to form the American Medical Association." If this movement to convert the Mississippi Valley Medical

Association into a branch of the American Medical Association is approved by the last mentioned body, says Secretary Tuley, in a circular dated November 20th, the new constitution, "while practically in effect now, will become actively so." It is fair to presume, we suppose, that no organized body of the record and standing of the Mississippi Valley Medical Association would take such a step as that of adopting a constitution dependent for its being "actively" in effect upon the approval of another organization unless substantial assurance had been obtained that that other body would approve of the action.

Apparently, therefore, the Mississippi Valley Medical Association is to become a district branch of the American Medical Association, and its members expect other district branches to be formed in various parts of the country; for one such branch, from however large an extent of territory it might draw its membership, short of the entire area of the United States, would not go far to "form" the American Medical Association, and if it did cover the whole country, it could hardly be called a branch. The American Medical Association was long ago formed on the basis of representation from every individual State of the Union; if it is hereafter to be formed by branches made up of voluntary associations of States, either, we take it, every State must enter into the arrangement or a dissenting State will in time find itself shut out, unless indeed it chooses to call itself a branch. It seems to us that this move on the part of the Mississippi Valley Medical Association opens questions that ought to be fully examined and discussed.

Incidentally, the organization of the Mississippi Valley Medical Association itself is changed by the new constitution; it is no longer constituted by voluntary members, but by the members of certain existing State organizations. Never before, to our knowledge, has it precisely defined the section of the country from which its members were legitimately derived, but the new constitution describes the "component societies" as the State medical associations of Minnesota, Iowa, Missouri, Arkansas, Louisiana, Wisconsin, Illinois, Kentucky, Tennessee, Mississippi, Michigan, Indiana, Ohio, Alabama, Georgia, and North Carolina—"provided," in the case of any one of these States, "such association exists," as we read in the by-laws.

AWAY WITH "GLYCERINATED" VACCINE!

For several years past there has appeared prominently in our periodical literature much adulation of a method of preserving and purifying vaccine lymph by prolonged subjection of it to the action of glycerin at a low temperature, attributed to Dr. Copeman, an English physician. Copeman by no means originated the idea of using glycerin as a preservative of vaccine; for many years before his time it was tried both on the Continent of Europe and in this country, and practically given up. What Copeman really did inaugurate, as we understand the matter, was the notion that the curdlike, pul-taceous material found at the centre of a vaccine pock, unfit in its natural condition for inoculation upon the human subject, was richer in vaccinal energy than the clear lymph of the pock, and could be so reclaimed by the action of glycerin as to become harmless while retaining such energy. We have always expressed our dissent from the idea and opposed the use of "glycerinated" vaccine prepared according to Copeman's teaching. At last we seem to have found an ally in Dr. Milton J. Rosenau, passed assistant surgeon in the United States Public Health and Marine Hospital Service and director of the service's hygienic laboratory.

In the laboratory's *Bulletin No. 16*, dated September, 1903, Dr. Rosenau sets forth the results of his very thorough investigations into the alleged antiseptic and germicidal properties of glycerin. Though he thinks that glycerin has "a distinct though exceedingly feeble germicidal action," he practically admits that we ought not to depend upon it for reclaiming contaminated vaccine, and the so called "pulp" of the Copeman vaccine certainly is contaminated in addition to being made up largely—almost entirely—of dead tissue, tissue that has been strangled by congestion. Dr. Rosenau's bulletin gives many interesting data, but the practical drift of them all is to warn the profession against trusting to "glycerination" for the redemption of infected vaccine. He still seems, however, to cling to the idea of reclaiming "pulp" by chemical treatment, mentioning such agents as chloroform vapor, chloretone, potassium cyanide, carbolic acid, and formalin, but we trust that the profession will not again become imbued with the notion of rendering noxious "vaccine" innocuous.

THE HIGHER PRELIMINARY EDUCATION OF
MEDICAL STUDENTS.

A casual consideration of the theory of ions in chemistry, essentially electrical in its nature, shows that that science in the future will demand on the part of the student a knowledge of the higher mathematics. The old "algebra, as far as quadratic equations," will no longer serve his needs and he must learn the theory of infinitesimals, a genuine knowledge of which requires a rather high quality of mind. Evolution will eventually dispose of the question of the overcrowding of the medical profession.

THE INDEX MEDICUS.

We publish elsewhere in this issue extracts from a very cogent letter by Dr. J. W. Ballantyne in the *British Medical Journal* for November 14th, in reference to the urgent need, notwithstanding the generous aid of the Carnegie Institution, for more extensive support for this unique work at the hands of the medical profession, if it is to be continued. In the same journal, for November 21st, Dr. W. B. Drummond follows Dr. Ballantyne with what seems to us a very feasible suggestion indeed. He points out that while there may be many medical men who, both from a desire to aid such a valuable work and from its occasional serviceableness to themselves, would gladly subscribe, but who find even the reduced price at which the Carnegie Institution's munificence has rendered its production possible, too great a tax on their already overburdened list of subscriptions, the conjoint subscription of coteries of medical men would afford material additional support. While this plan might, perhaps, be a little difficult of execution in the case of private practitioners, he suggests that those who hold hospital appointments might find it worth their while to unite with their colleagues to procure a copy for their hospital. We would go further and say that no hospital or public institution maintaining a large staff of medical officers can afford not to be a subscriber to the *Index*, either out of its own funds or through the conjoined subscriptions of its staff, preferably the former.

THE OCCASIONAL TOXIC EFFECTS OF BORIC
ACID AND BORAX.

In view of the recent experiments in the Department of Agriculture with food preservatives, particular interest attaches to the occasional toxic effects of chemicals used in the preservation of articles of food. Certain observations of von Noorden's (*Therapie der Gegenwart*, February; *Zentralblatt für innere Medizin*, October 31st) show that at times the use of a mouth wash of a 3.50

per cent. solution of boric acid may give rise to stomatitis characterized by swelling of the lips, the gums, and the border of the tongue, salivation, tenderness, and now and then superficial ulcerations. These phenomena occur only in certain individuals. Kister (*Zeitschrift für Hygiene und Infektionskrankheiten*, xxxvii; *Zentralblatt für innere Medizin*, October 31st), having experimented on fowl, dogs, cats, rabbits, and guinea pigs, concludes that the use of boric acid as a preservative is apt to be injurious. Dosquet-Manasse (*Therapie der Gegenwart*, August; *Zentralblatt für innere Medizin*, October 31st) relates the case of a strong young man who, for a throat affection, was ordered to inhale the spray of a solution of a teaspoonful of borax in a pint of water. Unpleasant symptoms appeared every time the spray was applied. That they were not due to the mere effect of spray as such was shown by their failure to occur when the spray of a decoction of chamomile was used.

LEUCANÆMIA.

Under this name, which is said to have originated with Leube, Luce (*Deutsches Archiv für klinische Medizin*, lxx, 3, 4; *Berliner klinische Wochenschrift*, November 9th) reports the case of a woman, forty years old, who had an infectious disease of the throat which was followed by simple anæmia. After three months and a half examination of the blood showed the presence of lymphatic leucæmia combined with pernicious anæmia. The necropsy disclosed diffuse leucæmic infiltration of the liver, kidneys, and heart, with hyperplasia of the spleen and of a few lymph glands. The marrow of the bones was rich in lymphocytes and the elements characteristic of pernicious anæmia. As in other recorded cases, there was no siderosis.

A COSMETIC OPERATION FOR INGUINAL HERNIA IN WOMEN.

It is always well to have a cosmetic effect in mind in surgical operations, provided no added difficulty or danger is incurred in striving for it. Morestin (*Bulletins et mémoires de la Société anatomique de Paris*, lxxvii, 6me série, No. 3; *Zentralblatt für chirurgie*, November 7th) endeavors to hide the scar of the operation for inguinal hernia in women by making the incision in the region covered by the pubic hair, the wound being dragged outward with a retractor. This seems a refinement of the cosmetic art, for what woman would care if she had a linear inguinal scar visible on close inspection?

News Items.

Society Meetings for the Coming Week:

MONDAY, December 7th.—New York Academy of Sciences (Section in Biology); German Medical Society of the City of New York; Morrisania Medical Society, New York (private); Brooklyn Anatomical and Surgical Society (private); Corning, N. Y., Academy of Medicine; Utica, N. Y., Medical Library Association; Boston Society for Medical Observation, St. Albans, Vt., Medical Association; Providence, R. I., Medical Association; Hartford, Conn., Medical Society; South Pittsburgh, Pa., Medical Society; Chicago Medical Society.

TUESDAY, December 8th.—New York Academy of Medicine (Section in Genitourinary Surgery); New York Medical Union (private); New York Obstetrical Society (private); Buffalo Academy of Medicine (Section in Medicine); Kings County, N. C., Medical Association; Rome, N. Y., Medical Society; Medical Society of the County of Rensselaer, N. Y.; Newark, N. J., Medical Association (private); Trenton, N. J., Medical Association; Clinical Society of the Elizabeth, N. J.; General Hospital and Dispensary; Northwestern Medical Society of Philadelphia; Practitioners' Club, Richmond, Ky.; Richmond, Va., Academy of Medicine and Surgery.

WEDNESDAY, December 9th.—New York Pathological Society; New York Surgical Society; American Microscopical Society of the City of New York; Society of the Alumni of the City (Charity) Hospital; Society for Medical Progress, New York; Pittsfield, Mass., Medical Association (private); Philadelphia County Medical Society; Lenox Medical and Surgical Society (private).

THURSDAY, December 10th.—New York Academy of Medicine (Section in Pædiatrics); New York Academy of Medicine (Section in Otolaryngology); Society of Medical Jurisprudence and State Medicine, New York; Brooklyn Pathological Society; Medical Society of the County of Cayuga, N. Y. (semi-annual meeting); South Boston, Mass., Medical Club (private); Pathological Society of Philadelphia; Church Hill Medical Society of Richmond, Va.

FRIDAY, December 11th.—Yorkville Medical Association, New York (private); Brooklyn Dermatological and Genitourinary Society (private); German Medical Society of Brooklyn; Medical Society of the Town of Saugerties, N. Y.

SATURDAY, December 12th.—Obstetrical Society of Boston (private).

NEW YORK

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending November 28, 1903:

	Week end'g Nov. 21.		Week end'g Nov. 28.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	307	17	267	8
Diphtheria and croup....	284	44	406	36
Scarlet fever.....	171	8	181	13
Smallpox	4	0	0	0
Chickenpox	82	0	98	0
Tuberculosis	399	134	257	162
Typhoid fever.....	68	13	74	17
Cerebrospinal meningitis..	..	4	0	3
Totals.....	1,315	220	1,283	239

The Memorial Hospital, of Brooklyn, has received a bequest of \$5,000 by the will of the late George W. Boyd.

The Tuberculosis Infirmary of Blackwell's Island has now a new dining room, accommodating 350 persons, which cost \$13,000.

St. Vincent's Hospital, of Manhattan, opened a branch at West New Brighton, S. I., on November 28th, Archbishop Farley solemnly blessing the new structure.

The Ear-Grafting Operation, concerning which so much was said in the lay press a few weeks ago, is now said, according to newspaper reports, to have been successfully accomplished.

Dr. George F. Shrady, the editor of our esteemed contemporary, the *Medical Record*, is suffering, we regret to announce, from an attack of grippe.

The St. John's Guild Floating and Seaside Hospitals has received a bequest of \$1,000 by the will of the late Marcia Sherrill, which was probated on November 27th.

Seney Hospital, Brooklyn, has secured promises from St. Paul's Church, Manhattan, and Grace Church, Brooklyn, both Methodist Episcopal congregations, that each will contribute \$10,000 to its support during the coming year.

The New York County Medicopharmaceutical League, at its meeting on November 27th, elected the following officers: President, Dr. A. E. Gallant; first vice-president, Dr. Samuel S. Wallian; second vice-president, Dr. James Noran; secretary, Dr. James Gutfreund; treasurer, Dr. Samuel F. Brothers.

The Postgraduate Hospital will soon have two beds endowed by New York Lodge No. 1, B. P. O. Elks, which is to pay \$7,500 at the signing of the contract, \$3,500 at the end of nine months, and \$3,500 at the end of eighteen months. The lodge will, however, endeavor to pay the entire amount at once.

Death of Dr. Cyrus Edson.—As we go to press we regret to learn of the death of Dr. Cyrus Edson. Dr. Edson was feeling out of sorts on Friday, November 27th, but he nevertheless went to the Larchmont Yacht Club, on Saturday. On Sunday he was much worse and was removed the same day to Roosevelt Hospital, where he died on Wednesday night, from pneumonia. Dr. Edson was at one time on the New York board of health.

New York Polyclinic Medical School and Hospital.—Two vacancies will occur on the house staff on January 1, 1904, the service being for one year. An examination of candidates will be held at the hospital at 2 p. m., Saturday, December 19, 1903, in anatomy, surgery, materia medica, and practice of medicine. For further information, address: Dr. C. H. Chetwood, chairman of executive committee, with whom applications should be filed prior to the date of the examination.

Academy of Medicine.—The section on Pædiatrics will meet on Thursday evening, December 10th, when Dr. William L. Stowell will report a case of Henoch's Purpura, followed by a symposium and discussion on Lobar and Bronchopneumonia in Infants, by Dr. David Bovaird, Jr., Dr. W. P. Northrup, and Dr. J. E. Winters. The same evening the section on Otology will enjoy an exhibition of instruments and specimens by Dr. Philip D. Kerrison, and hear a paper on Metastatic Abscesses Resulting from Middle Ear Suppuration, by Dr. S. MacCuen Smith, of Philadelphia. After the discussion, officers will be elected for the ensuing year.

The Alumni Society of St. John's Hospital, Brooklyn, met on Tuesday evening, November 24th, in the Kings County Medical Society Building for the first scientific session of the season. Dr. H. A. Fairbairn read a paper on Some Physiological and Pathological Points Regarding the Liver, which was discussed by Dr. Archibald Murray and the members in general. Dr. H. T. Hotchkiss then read a paper entitled A Plea for More Method in the Practice of Medicine, followed by a general discussion. Dr. W. S. Hubbard reported an interesting case of typhoid fever, unique in the lack of any clinical symptoms until very late in the disease and the long persisting coma afterwards and emaciation, with final complete recovery. Dr. W. L. Duffield reported an obscure case of gastric ulcer and Dr. Edward Hodges one of advanced multiple fibromyoma of the uterus, which is steadily decreasing and a progressive bettering of all concomitant symptoms under x ray treatment, and is thought presumed to be the second on record. The members present were: Dr. Royce, Dr. Duffield, Dr. Fairbairn, Dr. White, Dr. Simmons, Dr. Murray, Dr. Hubbard, Dr. Hotchkiss, Dr. Hodges, Dr. Knight, Dr. Lewis, Dr. Search, Dr. Gilmour, and Dr. Longstreet. The president, Dr. R. S. Royce, occupied the chair.

PHILADELPHIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

	Week end'g Nov. 28.		Week end'g Nov. 21.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	70	11	68	7
Diphtheria	82	14	103	14
Scarlet fever	90	2	84	4
Typhoid fever	84	9	118	11
Consumption .....	..	61	..	45
Cerebrospinal fever	0	0	..	..

The Children's Hospital, of Philadelphia, has received a bequest of \$200.00 by the will of the late Judith Dallett.

Samaritan Hospital.—Dr. W. Wayne Babcock, formerly gynecologist of this institution, has been made surgeon in chief, succeeding Dr. E. W. Holmes, who recently resigned.

Seventy Fresh Cases of Smallpox in Philadelphia for Week Ending November 28th.—Two more cases of smallpox have been reported in Philadelphia for the week ending November 28th than the week preceding, making 138 new cases for the two weeks. Few wards in the city are now exempt, the Thirty-third Ward still heading the list with eleven new cases.

The Pennsylvania Hospital School for Nurses granted diplomas to the following young women on November 24th: Elizabeth Broughton, of Pennsylvania; Helen E. Clark, of Ohio; Mary M. Lewis, of Virginia; Margaret Gordon, of Philadelphia; Florence Upton, of Philadelphia; Annie M. Lundberg, of Sweden; Inez L. Baker, of New Jersey; Alice Birchfield, of Pennsylvania; Mabel Jacques, of New Jersey; Mary Quinlan, of Pennsylvania; Rebecca V. Abbot, of Pennsylvania; Bertha Taylor, of Pennsylvania; Luella B. Quick, of New York; Clara L. Street, of Philadelphia; Fanny I. Doolittle, of Philadelphia; Ida Erhart,

of Alabama; Julia A. Edwards, of Pennsylvania; Virginia Goldsborough, of Pennsylvania; Elizabeth P. Marmey, of Delaware; Carrie McGill, of Pennsylvania; Carrie Ritter, of Maryland.

Philadelphia Obstetrical Society.—A regular meeting of the society was held on December 3rd. Dr. Wm. R. Pryor, of New York, was the guest, and read a paper on Puerperal Sepsis, which was discussed by Dr. E. E. Montgomery, Dr. Barton Cooke Hirst, Dr. J. C. Clark, and Dr. Richard Norris. After the meeting Professor John M. Fisher entertained Dr. Pryor and the members of the society at his house.

Smallpox Becoming Virulent in Philadelphia.—Up to noon of December 1st sixty new cases of smallpox had been reported in the city of Philadelphia for the current week, which is as many cases as had been reported for the whole of the preceding week, and is a larger daily average than at any time since the epidemic during the winter of 1901. The records show that from January 1 to December 1, 1903, the number of smallpox cases in the city of Philadelphia reached 1,350. Owing to the increased number of smallpox patients in the Municipal Hospital four physicians and eight nurses have been transferred there from the Philadelphia Hospital. More stringent orders regarding vaccination have been issued, and hereafter the vaccine physicians are supposed to receive their fees per case only upon proof that the vaccination has been successful. Five schools have been closed for fumigation within three days. The virulency of some of the cases is manifested by the hæmorrhagic type of the disease. The colder weather now prevailing in Philadelphia appears to be a predisposing ætiological factor, due probably to the closer congregation of people, and the increased facilities for contracting the disease.

Public Lectures on Hygiene and Sanitation.—The Academy of Natural Sciences, of Philadelphia, is giving a free series of lectures on hygiene and sanitation, which are delivered by Seneca Egbert, A. M., M. D., professor of hygiene at the Medico-chirurgical College, of Philadelphia. The first lecture of the series was held on November 3rd. The programme for the ensuing lectures is as follows: *November 30th.* The Hygiene of the Individual. The modern teachings of preventive medicine. Methods of acquiring and developing immunity. The influences of heredity and environment. How to avoid immediate dangers and to improve the general physical conditions. *December 7th.* The Hygiene of the House. The proper location of dwellings. Drainage and ventilation of the soil. Methods of sanitary construction. Importance of satisfactory ventilation and warming of dwellings. The removal of house wastes. Sunlight as a germicide. Prophylaxis and disinfection. *December 14th.* The Hygiene of the City and State. What should be done by constituted authorities. Evidence as to the practical value of municipal sanitary improvements. Importance of pure water supplies and proper supervision of food stuffs. Value of modern street and park systems, methods of sewage disposal, etc. The necessity and influence of the

correct registration of vital statistics. *December 21st.* The Sanitary Education of the Citizen. When and where shall it begin? Opportunities afforded by but neglected in the public schools. Need of a more thorough and general popular education. Actual cost of present ignorance and neglect in this State. The necessity for and value of systematic and broad instruction in all matters pertaining to hygiene and sanitation throughout the entire public school course.

GENERAL

The New Coroner's Physician at Schenectady, N. Y., is Dr. G. W. Bates, who will receive a salary of \$500.00 for the coming year.

Epidemic of Measles in Plymouth, Pa.—About seven hundred cases of measles are reported from the town of Plymouth, Pa., principally among children. No deaths have as yet been reported.

At the Elmira Reformatory, it is said there are now sixty-three cases of diphtheria and five cases of typhoid fever. No prisoners will be received until the epidemics are over.

The New Superintendent of the Syracuse, N. Y., Hospital will be Miss Hannah C. Lee, a graduate of the Prospect Heights Hospital and Brooklyn Maternity Hospital, where she won the honor prize of her class.

Vassar Hospital, of Poughkeepsie, N. Y., has appointed, as assistant physician to succeed Dr. Brill, Dr. Van Tiling, a graduate of Boon-on-Rhine, who has only recently taken up his residence in America.

Children's Hospital, of Buffalo.—An appointment as interne is to be made at the Children's Hospital, of Buffalo. Women graduates, only, of medicine are eligible. Applications may be addressed to Dr. C. Sumner Jones, 695 Delaware Avenue, Buffalo, N. Y.

Isthmian Canal Commissioner.—Dr. William Osler, accompanied by a delegation from the American Medical Association, petitioned the President on November 25th to appoint a member of the association as one of the interoceanic canal commissioners, urging that the presence of a competent physician would be of great value to the government. The President has not yet acted upon the request.

Chicago; Decrease in Number of Infectious Cases.—All the acute infectious diseases, except pneumonia, show marked reductions in the mortality returns of the week. Deaths from diphtheria are fewer than in any week since soon after the opening of the school year, while the number of cases reported is thirty-eight per cent. less than in the previous week and the scarlet fever cases are twenty-six per cent. fewer. Indications from the laboratory point to a continuance of these satisfactory conditions; while there was an increase of more than forty-three per cent. in the requests for bacteriological examinations of suspected diphtheria there was a decrease of fifty per cent. in the actual findings. Influenza, however, shows signs of increased activity and the first death was reported from this disease since last June.

Smallpox in Chicago.—No new case of smallpox was discovered during the week—a gratifying proof of good work done by the department and the State board of health in handling the epidemic at Lemont. Since the first of the year there have been 376 cases of the disease cared for by the division of contagious diseases, over 200 of them being imported from beyond the city, but from none of these has any serious spread resulted. Of the 376 cases 328 never had been vaccinated at all; forty-eight had old, imperfect or doubtful scars, in no case indicative of a typical vaccination. The forty-eight who died had never been vaccinated. Vaccination is the sole and the sure protection against smallpox and employers should see to it at this time, when so many workmen are flocking to the city, that all their hands have been recently vaccinated.

Statement of Mortality of Chicago, Ill., for the Week Ending November 28, 1903, compared with the preceding week, and with the corresponding week of 1902. Death rates computed on estimated mid-year populations of 1,885,000 for 1903, and of 1,820,000 for 1902:

	Nov. 28, 1903.	Nov. 21, 1903.	Nov. 29, 1902.
Total deaths, all causes.....	512	467	448
Principal causes of death:			
Acute intestinal diseases.....	19	15	34
Apoplexy.....	14	17	11
Bright's disease.....	38	27	20
Bronchitis.....	11	12	22
Consumption.....	50	45	40
Cancer.....	10	22	27
Convulsions.....	9	14	11
Diphtheria.....	19	15	21
Heart diseases.....	32	53	34
Influenza.....	1	1	0
Measles.....	0	2	3
Nervous diseases.....	32	19	19
Pneumonia.....	94	70	53
Scarlet fever.....	9	2	5
Suicide.....	12	4	11
Typhoid fever.....	17	8	19
Violence (other than suicide).....	38	25	26
Whooping cough.....	0	0	3

Typhoid Fever Epidemic in Butler, Pa.—In the absence of definite statistics from what appears to be a most virulent endemic of enteric fever we can at present only report the general situation, reserving the more important details for a subsequent issue. There appears to be no doubt that conservative estimates show that there are present almost 700 cases in Butler, and that the local means for combating the disease are inadequate. Relief expeditions consisting of physicians and nurses with supplies have been sent from Philadelphia, Pittsburgh, and the neighboring smaller towns to Butler. A citizens' relief committee from Philadelphia succeeded in sending twenty-five nurses in charge of a physician, the nurses being supplied from the various hospitals of this city. Money has also been contributed by citizens of Philadelphia. As many of the cases are in the second week of the disease, and many probably still within the period of incubation, it will take some little time to approximate the virulence and mortality of the outbreak. The governor of Pennsylvania has instructed the State board of health to make an investigation of the conditions. The State of Pennsylvania has a fund of \$50,000.00 at its disposal created by the last legislature for the purpose of stamping out epidemics which shall be beyond the ability of local authorities to check. There can be no doubt that polluted water supply has been directly responsible for the outbreak

of the disease. It is reported that drainage polluted the water supply through gravity, cases of typhoid fever having been located on a hill above a dam, into which polluted water emptied and was finally pumped into the service pipes. Up to the present the mortality has not been very large, which is probably due to the fact that a large majority of the cases have not yet reached that stage of the disease where the greater number of deaths occur and during which complications usually arise. At the moment of going to press, we learn that many of the patients have contracted diphtheria, and that the State of Pennsylvania has granted \$2,000 to the relief fund.

Preliminary Programme of the Western Surgical and Gynecological Association.—The thirteenth annual meeting of the Western Surgical and Gynecological Association will be held in Denver, Col., December 28 and 29, 1903. An invitation is extended to the surgeons and gynecologists of the great West to attend this meeting and take part in its deliberations. The meetings are held during the holidays, thus enabling those to attend who belong to the teaching faculties of our medical colleges, without interfering with their college duties. We append herewith a list of the papers to be presented and their titles. The official programme will be issued about December 10th, until which time additional titles may be added.

Membership application blanks will be sent by the secretary on request.

Surgery of Hydrocephalus; Illustrated with 100 Stereopticon Slides, by Dr. B. Merrill Ricketts, of Cincinnati, Ohio; **Early Diagnosis of Ectopic Gestation,** by Dr. William E. Ground, of Superior, Wis.; **Report of two cases: 1. Pancreatic Cyst; 2. Primary Carcinoma of Lung,** by Dr. W. W. Grant, of Denver, Col.; **Accidental Perforations of the Uterus,** by Dr. D. S. Fairchild, of Des Moines, Iowa; **The Treatment of Gastric Ulcer,** by Dr. H. D. Niles, of Salt Lake City, Utah; **Meningocele,** by Dr. A. E. Benjamin, of Minneapolis; a paper by Dr. A. L. Wright, of Carroll, Iowa; **Ulcer of the Duodenum, with Report of Case,** by Dr. J. W. Andrews, of Mankato, Minn.; **The Imperfect and Abnormal Descent of the Testis,** by Dr. D. N. Eisendrath, of Chicago; **Complications in Ovariectomy,** by Dr. Lewis Schooler, of Des Moines, Iowa; **The Correction of Retrodisplacements of the Uterus,** by Dr. C. W. Oviatt, of Oshkosh, Wis.; **The Treatment of Acute Hæmatemesis by Gastroenterostomy, with Report of Case,** by Dr. F. Gregory Connell, of Leadville, Col.; **Demonstration of Anatomic Treatment of Intracapsular Fractures of the Femoral Neck,** by Dr. C. E. Ruth, of Keokuk, Iowa; **Multiple Loose Bodies in the Kneejoint,** by Dr. J. P. Lord, of Omaha, Neb.; **Surgical Treatment of Pulmonary Abscess** by Dr. Van Buren Knott, of Sioux City, Iowa; **The Use of Silver Foil to Prevent Adhesions in Brain Surgery,** by Dr. M. L. Harris, of Chicago; **The Criminality of Using Chloroform Unless Ether is Positively Contraindicated,** by Dr. W. O. Henry, of Omaha, Neb.; **The Surgery of the Arteries—Experimental Research,** by Dr. O. Beverly Campbell, of St. Joseph, Mo.; **Observations on the Surgical Treatment of Goitre,** by Dr. C. H. Mayo, of Rochester, Minn.; **Simple Surgical Methods Safest; the Operating Room, the Operation, Preparation, and After Care,**

by Dr. H. G. Wetherill, of Denver, Col.; The Differential Diagnosis Between Appendicitis and Ovaritis, by Dr. R. Harvey Reed, of Rock Springs, Wyo.; An Unnamed Paper, by Dr. B. B. Davis, of Omaha, Neb.; Portal Obstruction with Gastrointestinal Hæmorrhage Following Operation, by Dr. Donald Macrae, Jr., of 315 McCogden Building, Council Bluffs, Iowa; The Treatment of Posterior Perforations of the Fixed Portions of the Duodenum, by Dr. J. E. Summers, Jr., of Omaha, Neb.; The Surgical Treatment of Retroversion of the Uterus, by Dr. Franklin H. Martin, of 34 Washington Street, Chicago.

Symposium on Prostatic Hypertrophy. *a.* Median Perineal Prostatectomy, by Dr. George E. Goodfellow, of San Francisco; *b.* Complications and Sequelæ, by Dr. J. E. Moore, of Minneapolis, Minn.; *c.* Pathology, Indications for Operation and Operations by the Suprapubic and Perineal Routes, by Dr. J. B. Murphy, of Chicago; Cholecystitis, with special Reference to Ætiology and Diagnosis, by Dr. T. E. Potter, of St. Joseph, Mo.; Limitations in the Extirpation of Rectal Cancer by the Vaginal Route, by Dr. A. F. Jonas, of Omaha, Neb.; Anatomy and Physiology of Absorption and Their Relation to Peritonitis, by Dr. A. E. Hertzler, of Kansas City, Mo.

Preliminary Programme of the Sixteenth Session of the Southern Surgical and Gynæcological Association, to be held at the New Piedmont Hotel, Atlanta, Georgia, Tuesday, Wednesday, and Thursday, December 15, 16, and 17, 1903. Presidential Address, by Dr. J. W. Bovée, of 1404 H Street, N. W., Washington; Memorial Address on Dr. W. E. B. Davis, by Dr. Richard Douglas, of Nashville; A Study of the Prostate and Treatment of Obstructive Hypertrophy, by Dr. G. Wiley Broome, of St. Louis; Surgical Intervention in Congenital Cystic Kidneys, by Dr. W. G. McDonald, of Albany; The Significance and Management of Paralysis of the Bowel, by Dr. George S. Brown, of Birmingham; The Pneumatic Rubber Suit as a Means of Controlling the Blood Pressure, with a Demonstration of the Apparatus, by Dr. George W. Crile, of 275 Prospect Street, Cleveland; (*a*) Œdematous Encephalitis: A Study of the Conditions Found in Operating for Cerebral Epilepsy and Allied Conditions; (*b*) A New Device and Method for Intestinal Anastomosis, by Dr. W. P. Carr, of Washington; The Recognition and Treatment of Congenital Misplacements of the Hip in Infancy, by Dr. A. H. Freiberg, of Cincinnati; Fracture—Dislocation of the Spine, by Dr. Shelton Horsley, of Richmond; Neoplasms, Wherever Situated, Should, if Possible, be Removed, Whatever Their Apparent Nature, by Dr. M. H. Richardson, of 224 Beacon Street, Boston; Operative Treatment of Cancer of the Liver—with Report of Case, by Dr. Joseph Ransohoff, of 706 Walnut Street, Cincinnati; Intestinal Cancer, by Dr. Garland Sherrill, of Louisville; The Early Diagnosis of Cancer of the Uterus, by Dr. F. F. Simpson, of Pittsburgh; Case of Carcinoma of the Rectum with Excision by Combined Perineal and Abdominal Route, with Exhibition of Specimen, by Dr. J. Horace Whitacre, of Cincinnati; Differential Diagnosis of Epithelioma and Syphilis of the Vulva, by Dr. Barton Cooke Hirst, of 1821 Spruce Street, Philadelphia; Spurious

Dysmenorrhœa: An Appeal for a More Rational Treatment, by Dr. Henry T. Byford, of 100 State Street, Chicago; Tuberculosis of the Uterus, by Dr. Chas. M. Rees, of Charleston; Surgery of Urinary Tuberculosis in Women, by Dr. Guy L. Hunner, of Baltimore; Surgery Without Ligatures, by Dr. A. J. Downes, of Philadelphia; Further Experience with the Use of the Downes Electrothermic Clamp in the Treatment of Cancer of the Uterus, by Dr. Charles P. Noble, of 1509 Locust Street, Philadelphia; Should We Not Do Myomectomy Rather Than Hysterectomy, if Possible, While Operating for Uterine Fibromyomata, and Shall We Not Leave Healthy Ovaries When We Do a Hysterectomy?, by Dr. C. C. Frederick, of Buffalo; Ectopic Gestation at Term, with Illustrations, by Dr. Charles A. L. Reed, of Seventh and Race Streets, Cincinnati; On the Practical Progress we have made in Pelvic and Abdominal Surgery, by Dr. Joseph Price, of 241 North Eighteenth Street, Philadelphia; Pus Collections in the Pelvis, by Dr. C. U. Chivigny, of New Orleans; Technics of Operations by the Vaginal Method, by Dr. J. Riddle Goffe, of New York; (*a*) Tuberculous Osteitis of the Kneejoint, (*b*) An Exhibition of a Plaster of Paris Bandage Roller, by Dr. A. R. Sands, of Washington; Arthroplasty, by Dr. J. B. Murphy, of 100 State Street, Chicago; Seven Cases of Amputation of the Hipjoint for Sarcoma Without Mortality, by Dr. W. B. Coley, of New York; Excision of Psoas Magnus Muscle for Sarcoma, by George H. Noble, of 131-133 South Pryor Street, Atlanta; Appendicitis, by Dr. J. M. Baldy, of 1831 Chestnut Street, Philadelphia; Post-peritoneal Infection Following Appendicitis, by Dr. I. S. Stone, of Washington; Notes on the Short Incision in Appendicitis Work, by Dr. Robert T. Morris, of New York; The Surgical Physiology of the Lymphatic System, by Dr. C. H. Mayo, of Rochester; Septic Thrombosis of the Femoral Vein following Influenza; Report of Case, by Dr. Dyer F. Talley, of Birmingham; Gunshot Wounds of the Lung, by Dr. Borden, of U. S. Army; Five Recent Successful Laparotomies for Gunshot Wounds of Abdominal Viscera, Including one with twenty-eight Perforations of Intestine and Mesentery, by Dr. Robert W. Johnson, of Baltimore; Atypical Cases: (1) Diphtheria of the Genitalia during the Puerperium, (2) Rupture of the Small Intestine, (3) Strangulated Inguinal Hernia Containing the Uterus and Fallopian Tubes in an Infant, by Dr. J. W. Long, of Greensboro; Gall Stones, by Dr. Mack Rogers, of Birmingham; Vaginal Cystotomy for Stone in the Bladder, by Dr. Charles R. Robins, of Richmond; Remarks on the Treatment of Abortion, with Prophylaxis in Special Cases, by Dr. Thad. A. Reamy, of 619 Oak Street, Cincinnati; Free Growths in the Tunica Vaginalis, by Dr. E. A. Balloch, of Washington; Complications to be met in the Surgical Treatment of the Testicle, by Dr. J. McF. Gaston, Jr., of Atlanta; Fractures at the Elbow, by Dr. J. B. Murfree, of Murfreesboro; Inguinal Hernia, by Dr. W. F. Westmoreland, of 241-243 Equitable Building, Atlanta; The Regulation of the Length of Exposure and the Distance from the Tube in X Ray Therapy, by Dr. Ennion G. Williams, of Richmond; The Surgical Treatment of Acute Pancreatitis, by Dr. W. D. Haggard, of Vine and Union Streets, Nashville.

Pith of Current Literature.

DEUTSCHE MEDIZINISCHE WOCHENSCHRIFT.

October 29, 1903.

1. Morphology and Chemistry of Fatty Degeneration,
By H. RIBBERT.
2. Cardiac Bigemination and Hemisystole, By F. RIEGEL.
3. Division of Human Fæces for Examination,
By P. GRÜTZNER.
4. Excochleation of the Prostate, By RIEDEL.
5. Cystoscopic Visible Bladder Changes in Uterine Cancer (To be concluded),
By W. HIRT, and R. STICHER.
6. Idiopathic Priapism, By MAINZER.
7. Antitoxine Treatment of Tetanus, By GLASER.
8. Unpleasant Action of Mesotan, By B. ARONSOHN.
9. Treatment of Constipation in Nurslings,
By CLAMANN.

1. **Morphology and Chemistry of Fatty Degeneration.**—Ribbert says that in cases of fatty degeneration, the great quantity of fat sometimes seen in the cells is undoubtedly derived from the blood. This is opposed to the view of Rosenfeld and Kraus, who allege that the fat originates in the cell. Ribbert distinguishes a physiological fatty infiltration, that is, a collection of fat in normal cells, and a pathological infiltration—in other words, fatty degeneration—representing a deposit of fat in diseased cells in which the oxidation is insufficient.

2. **Cardiac Bigemination.**—Riegel describes Leyden's "hemisystole" as "bigemination," and says that it consists in a powerful systole followed by an incomplete diastole which is incomplete because it is broken by an "extra" systole.

3. **Human Fæces.**—Grützner describes a method of securing small pieces of human fæces for examination. Alcohol is poured over them and when stirred with an apparatus like an egg-beater, they rapidly fall into powdered masses.

6. **Idiopathic Priapism.**—Mainzer relates the case of a forty-two year old alcoholic man, who for nine days had an uncontrollable priapism. There was no organic lesion demonstrable and only sexual hyperæsthesia was present.

ZENTRALBLATT FUER GYNAEKOLOGIE.

October 24, 1903.

- I. Muriate of Anæsthesin as a Local Anæsthetic,
By DUNBAR.

1. **Local Anæsthesia.**—Dunbar recommends the following solution for the œdematization and anæsthesia of the superficial tissues:

Anæsthine hydrochloride..... $\frac{3}{4}$ of a grain;
Sodium chloride.....3 grains;
Distilled water.....3 fluid ounces.

For deeper areas, the formula recommended is:

Anæsthine hydrochloride..... $3\frac{3}{4}$ grains;
Sodium chloride..... $2\frac{1}{4}$ grains;
Distilled water.....3 fluid ounces.

He has found these solutions entirely satisfactory for such operations as those for mastitis, atheromata, secondary suturing, radical operations for ingrown nails, extirpation of tear ducts, for chalazia, etc.

PRESSE MEDICALE.

November 4, 1903.

1. The National Congress on Alcoholism (October 26, 27, 28, and 29, 1903). Rôle of the Physician,
By H. TRIBOULET.
2. Aneurysm of the Ascending Thoracic Aorta,
By J. A. SICARD.

1. **National Congress on Alcoholism.**—Triboulet says that the first meeting of this body was a conspicuous success, including as it did members of the learned professions, the army, business houses, farmers, and workingmen. The results were the federation of all foes of intemperance, the desire to spread knowledge of the terrible consequences of drunkenness, acquaintance with the laws on the subject, hitherto neglected or spurned, and the probable establishment of bars and restaurants conducted on moderate lines. Jacquet said that it was now recognized that alcoholism was a great ætiological factor in disease, and recommended that the Pactolian floods of the literature of tuberculosis be directed in part to ethylism. Triboulet is authorized by the congress to assert that the alcoholic is an invalid; that, apart from some conspicuous exceptions, medical therapy is useless; the rôle of physicians is a prophylactic one, and should direct public opinion toward a real knowledge of the effect of alcohol; alcohol is an indispensable luxury and if it is an enemy, we must learn how to live as amicably as possible with it. He recommends that a study be made of all alcoholic products, that their effect on a healthy subject be studied, that the proper dose for men, women, children, and invalids be ascertained, that the effects be labeled as good, bad, or neutral, and that those upon whom alcohol has beyond doubt a bad influence be especially investigated. The physician, when asked by a patient, should be able to prescribe white wine or red, cider, whiskey, or beer, and give scientific reasons for his prescription as well as for forbidding alcohol altogether in certain cases; he must not be a bigot for either side of the question, but must handle the point in a sane, impartial manner. Triboulet quotes:

Ad caedes hominum prisca amphitheatra patebant;
Ut longum discant vivere nostra patent.

and translates that saloons have hitherto entertained men to kill them, but that henceforth restaurants should teach men to live longer and better. Besides the wine furnished regularly in the hospital wards, plenty of pure water should also be supplied. Temperance is a new question to the French, and they should give it due attention.

2. **Aneurysm of Ascending Thoracic Aorta.**—Sicard's case, in a woman forty-one years of age, presented unusual symptoms; her history was negative. In July, 1902, she entered the Salpêtrière with dyspnœa, and severe intercostal pain, with subsequent hydrothorax, which was tapped with the result of drawing out 300 cubic centimetres of liquid, containing endothelium and a few lymphocytes. She left the hospital and was afterwards treated with injections of gela-

tine. In November, she received the "mixed treatment," although without history of syphilis, and without result. When she returned to the Salpêtrière in March, 1903, the right breast was found to be enormously enlarged, and five months of compression were without result, as she died at the end of that time. The autopsy disclosed a perforation, 10 centimetres in circumference, on the right anterior aspect of the aorta, communicating with a sac which had provoked the pleural adhesions; along the third, fourth, and fifth ribs was a second sac consisting of a secondary hæmatoma, encysted in the cellular tissue (a false consecutive aneurysm). The weight of the clots in the two sacs amounted to 1,300 grammes.

RIFORMA MEDICA.

August 26, 1903.

1. Primary Tuberculous Epididymitis,
By M. DELLI SANTI.
2. The Diagnostic Value of Tuberculin,
By E. Malfatti, and F. Sarcinelli.
3. On the Neurococcus of Bra in the Blood of Epileptics,
By V. Tirelli, and A. Brossa.
4. Recovery in a Case of Tuberculous Meningitis,
By G. Avanzino.

1. **Primary Tuberculous Epididymitis.**—Delli Santi shows the contention of Baumgarten, that an immovable bacillus, such as that of Koch, can scarcely travel from one end of the genitourinary tract to the other, to be without basis. He injected cultures of tubercle bacilli into the urethra of dogs and found that fluid obtained from the testes of these dogs, when inoculated to guinea pigs produced generalized tuberculosis, and showed the presence of the tubercle bacillus in these lesions. In another series of dogs he first carefully ligated the spermatic cords with catgut, completely excluding the vasa deferentia, and then injected a culture of the tubercle bacillus in the same manner. He killed the dogs after a varying interval and found that the testicles were affected with tuberculosis in proportion to the time that had elapsed since the infection. The venous stasis which had been artificially created by ligating the vessels of the spermatic cord furnished a favorable condition for the infection. In the first experiments, the testicles remained unaffected, though they contained tubercle bacilli, because the natural resistance of the tissues prevented the growth of the germ. An important feature shown in these experiments (second series), was that the epididymis was first affected, and that the canaliculi, and not the interstitial tissue, was first involved. This distinguishes the tuberculous process from the syphilitic. The fact that tuberculosis of the testis is more frequent on the left than on the right is explained by predisposition due to the arrangement of the vessels, which Delli Santi tried to reproduce in his ligations of the cord.

2. **Diagnostic Value of Tuberculin.**—Malfatti and Sarcinelli report five cases in which the diagnostic reaction to tuberculin was positive, but in spite of this, the diagnosis excluded the presence of tuberculosis. The authors insist that the tu-

berculin reaction, even when positive, cannot, in the absence of other criteria, determine the presence of tuberculosis somewhere in the body. Their conclusions in detail were as follows: In progressive doses, up to one centigramme, injections of tuberculin are not dangerous. The age of the patient has nothing to do with the reaction. The reaction which occurs at the point of injection is due to the specific susceptibility of the tissues of the tuberculous patient to the specific virus. The character of the reaction fever varies as regards its course, mode of onset, and subjective symptoms. The local reaction is marked in the other organs, but is not distinct or is difficult to observe in the lungs. Intervals of forty-eight hours between injections are sufficient to exclude a cumulative effect of the tuberculin, as the action of this agent does not last so long. Tuberculin has not the property of immunizing on repeated injections. Tuberculous affections of the lymphatic system and of the skin react most intensely with the smallest doses. In advanced cases of tuberculosis, very large doses are needed to produce a reaction, and then the latter is not so marked as that obtained with smaller doses in initial cases. It is impossible, therefore, to judge the condition of the lesions from the dose and the reaction. In tuberculous persons tuberculin always gives a reaction, but it may also give the same reaction in other diseases.

3. **Bacillus of Bra in Epilepsy.**—Tirelli and Brossa deny the claims of Bra and Chausse, who in 1902 announced that there is a specific germ in the blood of epileptics. They found certain granulations in the blood of these patients, but insist that these were merely fragments of blood cells and certainly not microorganisms. The researches of Bra and Chausse do not withstand a serious critical study according to Tirelli and Brossa.

4. **Recovery in a Case of Tuberculous Meningitis.**—Avanzino reports a case of true tuberculous meningitis in which the patient completely recovered. The diagnosis was made by removing a portion of cerebrospinal fluid and inoculating it to a guinea pig. The result was tuberculous infection. Tubercle bacilli could not, however, be found in the cerebrospinal fluid. Cyto-diagnosis confirmed the tuberculous nature of this liquid. Recoveries from true tuberculous meningitis are so rare that their occurrence has been doubted by many.

ROUSSKY VRATCH.

September 20, 1903.

1. The Struggle Against Leprosy, By I. I. HUBERT.
2. Two Cases of Rupture of the Cicatrix After Laparotomies, By A. N. ZIMINE.
3. Further Observations on the Treatment of Sydenham's Chorea by Means of Arsenic, By M. O. SHAIKEVITCH.
4. Atypical Pseudotuberculous Actinomycosis. The Streptotrichinosis of the Authors (*Concluded*), By I. A. SHARAP.
5. New Streams in the Progress of Artificial Feeding of Infants (*Concluded*), By S. A. BARSKY.

1. Measures Against the Spread of Leprosy.

—Hubert insists on the necessity of isolation in every case of leprosy. House quarantine may be sufficient, provided the supervision is trustworthy and the circumstances of the patient admit taking the necessary hygienic precautions. All other cases must be treated always in the leprosoria, or isolation hospitals for leprosy. In either case the patient must be properly cared for and the healthy persons about him protected from infection. There is no difference as to the variety of leprosy a patient has, as regards infectiousness, and therefore all patients, with whatever form, must be treated in the same way by the regulations. Exceptions may be made in those cases in which the morbid process has ceased, although they cannot be called healthy from their outward appearance.

2. **Arsenic in Chorea.**—Shaikevitch has used arsenic in large doses in five cases of chorea, according to the recommendations of Comby and of Filatoff. He finds that children bear large doses of this remedy without any unpleasant consequences. Comby has used a solution of one part of arsenic in 1,000 parts of water, which he diluted six times with water before using, and of which he gave teaspoonful doses to older children about ten years old, while younger children received half a teaspoonful. The maximum daily dose is, according to Filatoff, $3\frac{1}{2}$ teaspoonfuls to 7 teaspoonfuls daily. The present author did not see any cases of arsenical poisoning among these children, and no arsenical paralyses were observed, such as occurred in Comby's practice. In two cases there were transient diarrhoea and vomiting, respectively. While the results obtained by Comby and by Filatoff were very good, the present author did not obtain satisfactory results with this form of treatment. The usefulness of this method of treatment has not been demonstrated, and there is really no reason for giving arsenic in chorea, while this substance may do a great deal of harm in children in such large doses.

4. Pseudotuberculosis Due to Streptothrix in Man.

—Shabad concludes a study of the streptothrix and its action in the following manner: There is a special microorganism which is pathogenic in man, and which occupies a position midway between actinomycosis and tuberculosis. This atypical actinomycotic fungus gives, in man, a pathological picture akin to actinomycosis, but in contradistinction from the latter, produces a thick viscid pus of uniform consistence, without grains or rice bodies, does not show clubbed extremities, and is acid proof. There are two varieties of the atypical actinomyces, the simple and the pseudotuberculous. The former liquefies gelatin and does not produce pseudotuberculosis in animals. The latter has the opposite properties. The pseudotuberculous actinomyces has a biological interest, inasmuch as it is a natural link between the actinomyces and the tubercle bacillus, showing the botanical relationship of the two diseases. All the organisms that are capable of producing nodular lesions (tubercles) are acid proof, including the germs of tuberculosis, pseudotuberculosis, and actinomycosis.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

November 21, 1903.

1. The Surgical Treatment of Traumatic Hæmorrhage of the Spleen (*Illustrated*), By N. SENN.
2. Experiments with Rennet and Anti-Rennet, By JOSEPH MCFARLAND.
3. The Protoplasmic Activity of the Renal Epithelium, as Determined by the Elimination of Pigments Injected Into the Circulation, By WILLIAM S. CARTER.
4. The Pharmacologic Action of Drugs: Is It Determined by Chemical Structure or by Physical Characters? By ARTHUR R. CUSHNY.
5. The Pharmacologic Action of Drugs: Its Relation to Their Therapeutic Indications, By MAURICE VEJUX-TYRODE.
6. Non-Absorbent Gauze: The Proper Material for Tamponades in Surgical and Obstetric Hæmorrhages; a Preliminary Paper, By RUDOLPH WIESER HOLMES.
7. Destructive Sterilization by Cataphoresis of Cancer of the Uterine Cervix, By G. BETTON MASSEY.
8. Empyema of the Frontal Sinus (Discussion Only), By C. A. THIGPEN.
9. The Cultivation of Trypanosoma Brucei. A Preliminary Note, By FREDERICK G. NOVY, and WARD J. MCNEIL.
10. An Analysis of Fifteen Hundred Cases of Tuberculosis Discharged from the Adirondack Cottage Sanitarium from Two to Eighteen Years Ago, By LAWRASON BROWN.

1. **Hæmorrhage of the Spleen.**—Senn reviews the various treatments that have been recommended for the control of traumatic hæmorrhage from the spleen. He then records seven experiments conducted by him on dogs in order to determine the value of marginal pressure of the lips of the wound followed by suture. He concludes his paper as follows: "The most reliable procedure in arresting traumatic hæmorrhage of the spleen in all cases in which the wounded organ can be saved, is marginal crushing, followed by suturing the crushed margins with catgut. The hæmorrhage is arrested the moment the forceps is applied, and the blood vessels in the crushed tissues are speedily obliterated by thrombosis, thus guarding against recurrence of the bleeding, and by uniting the crushed wound margins by suturing with catgut the visceral wound is placed in the most favorable condition for speedy healing and regeneration of the tissues lost by the injury and the operative treatment of the wound."

6. **Non-Absorbent Gauze.**—Holmes discusses the relative advantages of absorbent and non-absorbent gauzes for surgical purposes. He goes into the subject with much detail. The gist of his teaching is that when gauze is employed for drainage it should be of the absorbent variety. When it is employed for the purpose of arresting hæmorrhage it should be of the non-absorbent variety. Special attention is given in the paper to the use of gauze in obstetrical practice. The author especially recommends, and illustrates, an instrument for packing gauze into the vagina and uterus. This instrument consists essentially of a hollow tube, through which gauze may be pushed by means of a stilette with a forked end.

7. Cancer of the Uterine Cervix.—Massey quotes statistics to show the unsatisfactory, not to say gloomy results, that follow the ordinary forms of treatment of cancer of the uterine cervix. The object of the paper is to bring again before the profession the electrochemical form of treatment that has been for some years advocated by the author. Some idea of the treatment may be gained from the following paragraph: "A powerful electric current is employed in this method for the development, within the substance of the growth, of nascent oxychlorides of mercury and zinc, from a union of electrolytically freed oxygen and chlorine with the mercury and zinc of an amalgamated electrode. These nascent salts thus produced during application are radiated in all directions by the continued flow of the current, devitalizing the protoplasm of the neighboring cells, particularly the better conducting lowly vitalized malignant cells, and the outflow may be governed and directed by the operator until both the centre and the periphery of the growth are devitalized and sterilized, the destroyed tissues assuming a whitish-gray aspect. The time required for the total destruction of an average cancer of the cervix varies from a half hour to two hours, with a current of 500 to 600 milliamperes." The author describes the mode of applying the treatment in detail, and the form of electrode used by him is illustrated. The author does not assert that this method is a cure all. He does believe that it gives better results than any other method so far devised. So far, he has employed the method in 63 cases of cancer, of which only 7 were situated in the cervix. Only one of these patients was alive and well after six years. All the other cases, however, were recurrent cases after knife operations and most of the patients died from metastatic growths, implanted, the author believes, at the time of the knife operations.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

November 28, 1903.

1. Operative Treatment of Bilateral Cicatricial Ankylosis of the Jaw. A Contribution Based on the Report of a Case of Twenty Years' Duration Relieved by a Series of Plastic and Osteoplastic Operations,
By RUDOLPH MATAS.
2. Surgical Treatment of High Myopia (Second Paper),
By NELSON M. BLACK.
3. The Causes, Prevention and Management of Myopia,
By J. HERBERT CLAIBORN.
4. Research Problems of Pharmacology,
By TORALD SOLLMAN.
5. Removal of the Faucial Tonsil; Some Observations and a New Method of Operation,
By CHARLES M. ROBERTSON.
6. Artificial Dilatation of the Cervix Uteri with a New Instrument,
By FRANK A. HIGGINS.
7. The Ætiology of Yellow Fever. An Addendum,
By JAMES CARROLL.
8. How to Write a Medical Article; A Plea for Plagiarism,
By G. FRANK LYDSTON.
9. Ankylosis of the Jaw.—Matas' paper does not lend itself to abstracting. The author first discusses the general subject of ankylosis of the

jaw and then reports his case and illustrates the various operations undertaken for the patient's relief. The final result obtained was very good. What the difficulties were and what the patient went through can be appreciated from the following quotation: "Briefly summarizing the operative treatment of this case, we find that the patient was under observation at the hospital for a period of two years, from January 15, 1901, to January 8, 1903, and that during this time six operations were performed. The first operation (February 1, 1901) was a complete through-and-through section of each cheek, including the division and incision of all cicatricial and ossified bands; separation of the jaws and suturing of the skin of the cheek to the gums, thus creating a huge oral cleft, or macrostoma. Second operation (May 30, 1901): Closure of the cheek gap by Jäsche's meloplasty. Third operation (February 22, 1902): Excision of right condyle and part of ramus of the jaw. Fourth operation (April 31, 1902): Esmarch's cuneiform excision of the left angle of the lower jaw, to create a pseudarthrosis at this point; also first stage of modified Gussenbauer's meloplasty. Fifth operation (November 20, 1902): Gussenbauer's meloplasty completed by leaving pediculated neck graft in the mouth. Sixth operation (December 8, 1902): Division of the pedicle of the transplanted flap and final closure of the cheek incision."

2. The Surgical Treatment of High Myopia.—Würdemann and Black state their conclusions as follows: (1) Surgical treatment of myopia should be limited to those cases over — 12.00 D. who suffer great inconvenience from their correcting lenses. The ideal cases for operation are those of — 17.00 to — 18.00 D. (2) The operation is mainly indicated in young adults. (3) Cases having active disease and changes in the ocular structures, such as progressive myopia, chorioiditis, fluidity of the vitreous or detachment of the retina are not applicable. (4) The dangers of operative interference are more than counterbalanced by the results to be achieved, which are mainly, increase of visual acuity and of the visual field, and more extended use of the eyes which accompany diminishment of the refraction.

5. The Removal of the Faucial Tonsil.—Robertson removes the tonsil for two conditions: (1) Hypertrophy so great that deglutition is interfered with; (2) infection and degeneration of the tonsillar tissue. It is in this latter class of cases that it is of the utmost importance to remove all the gland from the supratonsillar fossa. The author reviews the different method for performing amygdlectomy and concludes that they are all defective in that the tissue in the supratonsillar fossa is left *in situ*. The author concludes his article by describing his own method at length. It is as follows: The anterior pillar is separated from the tonsil by a special separator, which is practically a double edge blunt pointed knife at right angles to its long handle. The greater part of the tonsil is removed by special curved scissors and the supratonsillar fossa is then cleaned out, if necessary, by means of a punch.

AMERICAN MEDICINE.

November 28, 1903.

1. What is the Limit of Safety When More than One Operation is Indicated, By ALBERT VANDER VEER.
2. The Röntgen Rays as a Palliative in the Treatment of Cancer, By CHARLES LESTER LEONARD.
3. The Demonstration of Nucleated Red Blood Corpuscles in Animal Spleens, By EDWARD T. WILLIAMS.
4. The Spectroscopic Elements of Light as Therapeutic Agents, By GEORGE G. HOPKINS.
5. Abdominal and Pelvic Surgery Without Ligatures. Electrothermic (Heat and Pressure) Hæmostasis, By ANDREW J. DOWNES.
6. The Effects of the Secondary Static Currents in Removing Albumin and Casts from the Urine, with Reports of Cases, By BOARDMAN REED.
7. Status of Sanitary Progress, By WALTER WYMAN.

2. **Röntgen Rays.**—Leonard writes a very general article on the treatment of cancer by the x ray. Until the permanency of x ray cures has been demonstrated, it is the duty of every one to recommend that the diseased tissue should be removed by operation before the Röntgen treatment is resorted to. The best results from the x ray treatment can only be obtained when the applications are made by an expert. With improper technics more harm than good may be done. As to the possibilities of actual cures the author has this to say: "I have seen all of these results demonstrated, and have seen inoperable cases of cancer cured and remain cured thus far. I have also seen hopelessly inoperable patients restored to such health as to resume their ordinary avocations while yet under treatment, while the fatal termination in hopeless cases has been deferred and the patient's sufferings mitigated."

3. **The Origin of Nucleated Red Blood Corpuscles.**—Williams asserts that if it can be shown that erythroblasts are normally present in the spleen, the office of this organ as a producer of red blood cells will be definitely proved. The author records his methods of fixing and staining, by which he has succeeded in demonstrating that erythroblasts are constant anatomic elements in the spleens of cattle and swine. Whether the same thing be true for man has not yet been definitely demonstrated.

5. **Electrothermic Hæmostasis.**—Downes describes at length and illustrates the various instruments necessary for employing his method of electrothermic hæmostasis. Details for the performance of ten major abdominal operations are given. The author during the past two years has not used a ligature in abdominal surgery, and has not yet had a secondary hæmorrhage. His work has included 30 hysterectomies; over 100 salpingoophorectomies; 100 appendicectomies and 10 ovarian cysts. At the present time over thirty American surgeons are equipped with the author's instruments and are using them to a greater or less extent. The performance of intestinal resection and anastomosis with the aid of the author's instruments leaves nothing to be desired, so far as present reports seem to indicate. There is no chance of soiling the peritoneal cavity and the continuity of the gut may, if thought advisable, be restored at once at the end

of the operation. It would seem to be a better method than the MacGraw elastic ligature method.

MEDICAL NEWS.

November 28, 1903.

1. Diet and Drugs in Nephritis, By WILLIAM S. GORDON.
2. Mastoid Disease and Cerebellar Abscess, By SEYMOUR OPPENHEIMER.
3. A Discussion of Some Common Forms of Liver Disturbances, By A. P. STONER.
4. The Best Method of Dealing with the Stump in Appendicectomy, By HOWARD LILIENTHAL.
5. Chronic Villous Arthritis, with Special Reference to Its Ætiology and Pathology (*Concluded*), By CHARLES F. PAINTER, and WILLIAM G. ERVING.
6. Primary Osteoplasty in Open Fractures or Fracture Dislocations, By THOMAS H. MANLEY.

1. **Diet and Drugs in Nephritis.**—Gordon asserts that an exclusive milk diet in nephritis may at times do harm. One must remember that the body as a whole needs nourishment, and that the kidneys must do some work if the patient is to live. The diet must, therefore, be suited to the case and a routine diet for all cases is unscientific and should be avoided. In acute nephritis it is at times justifiable to forbid all food for a few days. The author does not give butcher's meat as a rule. In such cases patients should be warned against excessive indulgence in the nitrogenous foods allowed, such as fowl, game, fish, and oysters. Hygienic measures and diet are paramount in the treatment of nephritis, yet drugs are of use. In certain selected cases of acute nephritis the non-irritating diuretics are of the greatest value. To meet the general indications diaphoretics, cholagogues and hydrogogue cathartic drugs are indispensable. In chronic nephritis iron is one of the most useful general drugs that can be used. The author is not afraid to use morphine in small doses in uræmia; nor, in elderly people, does he hesitate to use alcohol as a stimulant.

3. **Liver Disturbances.**—Stoner considers the subjects of congestion of the liver, fatty degeneration and infiltration in a rather sketchy manner. He makes these remarks with regard to cirrhosis, which if not exactly new, bear repeating. Alcohol, as alcohol, probably does not produce cirrhosis. All forms of liver cirrhosis, there is reason to believe, are due either directly or indirectly to infection. Alcohol and other intoxicants lower the resistance of the liver cells, but they are not, apparently, the specific causes of the overgrowth of connective tissue. Many cases of cirrhosis, especially in children, are due to the toxins of abnormal intestinal fermentation.

4. **The Treatment of the Stump in Appendicectomy.**—Lilienthal asserts that ten years' experience has convinced him that the best way of treating the stump in appendicectomy is by ligation and cauterization. His method in detail follows: "The cauterization which for many years I have preferred is that by strong carbolic acid. A minute drop of the 95-per-cent. solution is taken up with a closed artery clamp as ink is

taken up with a pen, and after protecting the surrounding tissues with gauze the acid is thoroughly applied two or three times to the mucous lining of the stump until the little funnel is completely whitened. In from fifteen to thirty seconds the stump may be dropped back into the abdominal cavity with no danger to other structures which may come in contact with it."

5. Chronic Villous Arthritis.—Painter and Erving conclude in this number a very lengthy article on chronic villous arthritis. We give, in very condensed form, five of their six conclusions: (1) Chronic villous arthritis is not a disease of itself, as has been asserted by some authors. The two principal diatheses which cause it are rheumatoid arthritis and osteoarthritis. The villous changes in these two chronic conditions are to be regarded as symptoms of a general condition, and not as an entity in themselves. (2) Traumatism, entirely apart from any diathesis, is capable of giving rise to an hypertrophy of villi, and this hypertrophy is usually a local one in the part of the membrane directly or indirectly injured. (3) Stout, flabby adults, with pronated or flat feet, are more liable to the type of fringe which undergoes fatty degeneration with a minimum amount of fibrous change. (4) Alteration in the mechanics of weight-bearing is not, as has been recently stated, the prime cause of this condition in many of the knee cases. (5) The operative treatment in the properly selected cases gives eminently satisfactory results. Conservative treatment, when carried out properly in suitable cases, which comprise, however, only a small class, gives equally good results.

MEDICAL RECORD.

November 28, 1903.

1. Electricity in General Practice, By W. B. NEFTEL.
2. Suprapubic Lithotomy, By J. J. BROWNSON.
3. Treatment of Cervical Adenitis Due to Tonsillar Infection, By ALBERT E. ROGERS.
4. Perineal Section for Stricture, with Suggestions Upon the Use of the Cautery, and Points in the After-treatment, By CHARLES C. MILLER.
5. Foreign Bodies in Rectum, with Report of Two Cases, By MAURICE ROSENBERG.

2. Suprapubic Lithotomy.—Brownsen has had no experience with litholapaxy, and does not therefore discuss this method of removing stones from the bladder. Of the cutting operations he prefers the suprapubic route. The author's method of performing the operation is given and three successful cases are reported.

3. Cervical Adenitis Due to Tonsillar Infection.—Rogers reports five cases of cervical adenitis due to tonsillar infection, in which recovery took place in from a few weeks to six months after ablation of the tonsils. In all cases of cervical adenitis the author advises ablation of the tonsils before resorting to operations through the skin. Since the glands of the neck are so frequently infected by way of the tonsils, it is a matter of importance that all cases of acute amygdalitis should be effectively treated. The author recommends painting the tonsils and their crypts with a five-per-cent. watery solution of iodine.

In acute ulcerative amygdalitis the best treatment is to remove the diseased tonsil tissue by cutting well below the floor of the ulcer and then applying a strong antiseptic to the cut surface.

5. Foreign Bodies in Rectum.—Rosenberg reports two cases. *Case 1.*—A woman, aged forty-three years, had symptoms that led a physician and a consulting surgeon to declare she suffered from fissure. The sphincter was dilated. No improvement. Another physician subsequently made a diagnosis of internal hæmorrhoids. The woman was finally admitted to hospital, where she was examined by the author. He found two fish bones lying lengthwise in the folds of the mucous membrane of the rectal ampulla. Removal of the fish bones was followed by cure. *Case 2.*—Infant, sixteen months old. Incessant crying for nearly two days with signs of increased distress on passing water and having bowel movements. The author examined the anus and found a fish scale lodged in the crypt of the anal opening.

BOSTON MEDICAL AND SURGICAL JOURNAL.

November 26, 1903.

1. The Treatment of Diffuse Peritonitis, By B. F. LUND.
2. A Clinical Study of One Hundred and Twelve Cases of Movable Kidney, By RALPH C. LARRABEE.
3. Diseases of House Officers in Hospitals, By WILLIAM R. P. EMERSON.
4. Unclean Milk, Bovine Tuberculosis and the Tuberculin Test—Their Relation to the Public Health, By E. R. LARNED.

1. Diffuse Peritonitis.—Lund, by diffuse peritonitis, means that rapidly spreading inflammation of the peritonæum, due usually to perforations, in which the area involved is covered by pus or fibrin and is not walled off by adhesions or fibrin from the general peritoneal cavity. General peritonitis differs in extent, but not in character from diffuse peritonitis. The author is opposed to the waiting policy of treatment of which, he states, Ochsner, of Chicago, is the most eminent exponent. In exceptional cases Lund has seen the waiting policy give good results. The author's advice regarding treatment we summarize and classify as follows: (1) Complete removal of the infecting focus and of all necrotic tissue. This may, of course, not always be possible, but it should be attempted except where positively contraindicated. In cases of salpingitis it is absolutely wrong to leave one ovary behind if the ovary so left be even slightly diseased. (2) Thorough cleansing of the peritoneal cavity. This is best done by flushing with large quantities of decinormal salt solution at a temperature of about 110° F. (3) Drainage. The author is a strong advocate of gauze drainage. At times the addition of a glass tube will help drainage by keeping the gauze in position. Elevating the head of the bed and putting a number of pillows under the patient's shoulders will materially help drainage. The author does not go as far, in this respect as Murphy, who sits his patients upright. (4) If there is much distention of the abdomen, due to paralysis of the intestine, enterostomy is at times of value. Occasionally the author has

tied a drainage tube into the opened intestine, thus providing for an uninterrupted flow of fæces. The author concludes his article with a partial analysis of the results of the cases he has operated upon during the past four years.

2. **Movable Kidney.**—Larrabee, in a routine examination of 272 women, found a movable kidney in 112, or in 41.5 per cent. of the cases examined. The author's paper is a statistical study of these cases and cannot be condensed. He concludes that his observations, confirmed by similar studies by other physicians, show the frequency and innocuousness of the lesion, and go far to refute the extreme surgical view, according to which a movable kidney should always be operated upon. Unless it can be clearly shown that the symptoms complained of by a patient having a moving kidney are due to the kidney lesion an operation should not be undertaken.

4. **Unclean Milk.**—Larned concludes in this issue his paper on unclean milk. In our last issue we abstracted the first half of his thesis which had to do with the general question of pure milk and how it could best be obtained. The second part of the author's paper deals almost exclusively with bovine tuberculosis and the tuberculin test. The author asserts that the bovine bacillus is more virulent to both man and animals than the human tubercle bacillus. The tuberculin test is lauded by the author, and he advises its more general use for the purpose of testing the soundness of cattle.

BRITISH MEDICAL JOURNAL.

November 14, 1903.

1. The Conditions that Simulate Pernicious Anæmia. (Report to the Scientific Grants Committee of the British Medical Association), By T. HOUSTON.
2. Note on the Bodies Recently Described by Leishman and Donovan, By R. ROSS.
3. Filariasis in Man Cured by Removal of the Adult Worms in an Operation for Lymph Scrotum, By A. PRIMROSE.
4. Bubonic Plague ("Kaumpuli") in Central East Africa, By C. CHRISTY.
5. A Note on the Differential Leucocyte Count in Worm Infections, By A. E. BOYCOTT.
6. The Ætiology of Beri Beri, By W. G. ELLIS.
7. The Physical Factors in Phototherapy, By J. E. BARNARD, and H. DE R. MORGAN.
8. A Case of Double Gangrene of Legs Following a Mild Attack of Enteric Fever, By A. DODDS.

1. **Pernicious Anæmia.**—Houston considers the blood pictures afforded by pernicious anæmia and by other conditions which may simulate that disease. He gives a table of over one hundred and fifty cases which clearly supports the view that secondary anæmias can always be distinguished from pernicious anæmia by their low color index (relation of percentage of hæmoglobin to number of red corpuscles) and generally by the absence of megaloblasts. As an exception to the rule, however, he reports a case of general carcinoma secondary to cancer of the breast in a woman aged forty-two years, in which the whole clinical picture (including the blood) closely paralleled that seen in pernicious anæmia. But this

exceptional case affords no ground for the statement made by some observers, that it is impossible to distinguish between anæmias of the pernicious type and secondary anæmias of the gravest description. The high color index is the most reliable and characteristic feature of the blood of pernicious anæmia. It is probably due to the presence of many megalocytes with increased hæmoglobin, and indicates the megaloblastic origin of the red corpuscles in this disease. The presence of a few megaloblasts alone without a high color index is not indicative of pernicious anæmia. The conditions which are said to simulate pernicious anæmia are as follows: 1. Hæmorrhage. This blood picture is distinct from that of pernicious anæmia for the following reasons: (a) The blood is chlorotic in type; (b) the differential leucocyte count usually shows an increase in the multinuclear elements; and (c) megaloblasts are absent. It must be borne in mind that hæmorrhages are a frequent symptom of pernicious anæmia. 2. Intestinal parasites. Here the color index is below normal, and the leucocytes are increased in number, there being usually marked eosinophilia. 3. Pregnancy. Recent observations have shown that pregnancy seems to have no influence in producing the blood changes peculiar to pernicious anæmia. 4. Cancer. Here the anæmia is of the same type as that produced by hæmorrhage. In the exceptional cases of secondary anæmia approaching the pernicious anæmia type, due to the above and other causes, changes in the bone marrow are always found. By inference we may conclude that the bone marrow changes found so constantly in pernicious anæmia are an essential lesion of the disease directly accounting for the condition of the blood and not of a secondary nature—the result of the severe anæmia.

2. **Leishman's Bodies.**—Ross has studied the oval bodies found by Leishman and Donovan in the spleen of patients suffering from low fever, chronic dysentery, and cachexia. The bodies are about 2μ in diameter, extracellular, and contain a ringlike mass of chromatin with a smaller perpendicular or tangential mass. He does not hold with Leishman that they represent involution stages of trypanosomes, but rather that they are some novel organism. As they have been found in eight cases, the condition must be an important and common one.

3. **Filariasis Cured by Operation.**—Primrose reports the case of a man, aged forty-seven years, suffering from enlargement of the scrotum, contracted in Barbadoes. Blood examination showed the presence of numerous embryos of the *Filaria sanguinis hominis nocturna*. At the operation, the greater part of the indurated scrotum was removed, and in a small cyst was found a living adult filaria. Forty-six days after the operation the patient had an attack of elephantoid fever, after which the filariæ disappeared entirely from the blood. The parent worms must have been removed with the scrotal tissue after which the embryos which never come to maturity in human blood gradually disappeared. The author gives a very good review of the subject of filariasis.

4. **The Plague in Africa.**—Christy states that the epidemic diseases known in Central East Africa as "Kaumpuli" and "tubunga" are bubonic plague, and gives the results of the observations of a German physician (Zupitza) who succeeded in isolating the plague bacillus in pure culture from the blood and tissues of patients dying from those affections.

5. **Leucocytes in Worm Infections.**—Boycott gives the results of differential leucocyte counts in various worm infections. It has long been known that the presence of parasitic worms may be accompanied by eosinophilia. In oxyuris infection he found the eosinophiles to vary from 0.4 to 13.7 per cent. (normal one to three per cent.); only forty-two per cent. of the cases showed a percentage of more than six. Blood examination was of diagnostic importance in less than half the cases. Three out of six cases of tapeworms showed some increase in eosinophiles. In one case of bilharzia the eosinophiles rose as high as forty-seven per cent.

6. **Beri Beri.**—Ellis states that beri beri was endemic in the government asylum at Singapore from 1887 to 1900, the deaths averaging forty-five per annum, and the cases about one hundred and fifty. Since 1900 the disease has nearly been stamped out. Two small isolated wards were constructed to which all cases of beri beri were sent on the first manifestation of the disease. The wards are washed out with bichloride solution weekly, and all clothes and bedding disinfected twice a week. All patients are bathed half an hour daily, and kept in the open all day. Only five deaths have occurred in two years. All the patients are fed on Siamese rice, the author's observations having convinced him that rice has nothing to do with the disease. He thinks it a place disease—that the soil and buildings become infected and that people dwelling there are liable to absorb the poison whatever it is.

7. **Phototherapy.**—Barnard and Morgan state that it is as yet unknown whether the result produced by the light treatment in any disease is due to bactericidal power of the light or to the reaction which it excites in the tissues themselves. They have been able to locate the exact position of the bactericidal rays—they lie in that portion of the spectrum between wave-length 3,287 and 2,265, in other words, in about the middle third of the ultra-violet. The rays which excite the reaction on the part of the tissues could not be exactly located, further than that they lie somewhere in the ultra-violet region. The light in passing through 2.5 cm. of water loses four fifths of its bactericidal powers: it would therefore appear that in phototherapeutics the generally used water cooling appliance might well be dispensed with if the heat could be eliminated by other means, and assuming that the directly bactericidal rays are the only essential ones, which at present is by no means certain. It was found that the bactericidal action was exactly proportionate to the light produced, a current of ten ampères having double the bactericidal effect of a current of seven ampères, and so on.

8. **Typhoid Gangrene.**—Dodds reports the case of a man, aged twenty-two years, suffering from a mild attack of typhoid fever, who, in the second week of the disease, developed gangrene of both legs, necessitating amputation in the region of the thigh. Death took place two days after the second operation. Thrombi were found in the arteries.

LANCET.

November 14, 1903.

1. The History of Medicine as Illustrated in English Literature, By N. MOORE.
2. Occupation as a Cause of Lung Disease, By T. OLIVER.
3. The Operative Treatment of Tuberculous Glands of the Neck, By W. G. SUTCLIFFE.
4. The Successful Treatment of a Few Cases of Lupus, By C. S. BOWKER.
5. On Suppuration of the Bursa Over the Trochanter Major and Its Occasional Imitation of Hip Disease, By T. P. TEALE.
6. A Group of Cancer Cases, By W. G. NASH.
7. A Case of Lupus of the Forehead, the Right Arm, and the Elbow Treated by Excision, By C. H. LEAF.
8. A Case of Congenital Heart Lesion, By W. BROADBENT.

2. **Occupation Lung Disease.**—Oliver tells us that two kinds of occupation have long been recognized as productive of lung diseases—those that give rise to mechanical irritation of the air passages by dust, grit, or fluff being diffused through the atmosphere; and those in which the operatives are exposed to sudden changes in temperature. In districts where these conditions obtain, the death rates from pulmonary tuberculosis and bronchitis are several times as high as elsewhere. To a group of lung diseases characterized by excessive development of fibrous tissue throughout the lungs, the term pneumoconiosis is applied, and according to the character of the dust, so are the pulmonary lesions described as anthracosis, silicosis, siderosis, etc. The pulmonary lesion is the same in all—an overgrowth of fibroconnective tissue accompanied by the deposition of a large amount of pigment in the lungs, varying in color and character with the nature of the dust which is inhaled. The pulmonary lesion is largely the result of local irritation. The highest death-rate from phthisis occurs in French millstone building. The stone used is known as buhrstone, and is one of the hardest in nature. It is shaped into wedges with hammer and chisel in the open air. Millstone masons are notoriously short-lived, the majority dying from phthisis within ten years. The men are well paid, and as a rule intemperate. The crushing and grinding of the waste products formed in the manufacture of steel by the Gilchrist method is a very dusty process. This "basic slag," as it is called, contains iron protoxide and phosphorus, and its dust is very irritating to the lungs, and most of the grinders sooner or later have respiratory troubles. In Germany the slag dust also contains unslacked lime and is even more provocative of pulmonary disease. Ganister miners and crushers have a high death rate from phthisis: ganister is a hard close-grained mineral, consisting mainly of

silica. Tuberculosis does not follow directly upon the irritation of the lung, but is secondary to the fibrosis. Coal miners' phthisis, formerly so common, is now rarely met with, because of the improved ventilation of the mines. The lungs may be deeply pigmented for years without any signs of ill health, and the expectoration in an ordinary bronchitis is thin and inky. Some forms of coal dust are more harmful than others; the more stone in the coal, the more irritating the dust. Virgin coal contains no bacteria. Phthisis is very common among gold miners, the percussion drills used giving rise to large quantities of dust. The air of the mines often contains poisonous gases—carbon monoxide, etc. Hand-file cutting is the most unhealthy of the metallic trades, largely owing to the unsanitary conditions under which it is carried on. Knife and scissor grinding causes a large phthisis mortality, the grinding being usually done upon a dry stone. Potters' phthisis or "potters' rot" is the result of inhalation of clay dust; it is partly due to the mechanical irritant and partly to tuberculosis. The china scourers show the largest mortality. The death rate from pulmonary diseases other than tuberculosis is also very high. The results of inhalation of poisonous gases usually take the form of acute intoxications, but irritating gases, such as chlorine, may lay the seeds of bronchitis and emphysema, and cause a high death rate from non-tuberculous pulmonary diseases.

3. **Tuberculous Adenitis.**—Sutcliffe states that while tuberculous glands of the neck may diminish in size and the general condition of the patients improve under climatic, hygienic, and dietetic treatment, yet in old cases nothing short of operation will be of any service. In such operations the glands must be completely cleared out, however deeply situated; the resulting scars should be as little visible as possible; and as the adenitis is seldom fatal in itself and is rarely followed by general tuberculous infection, the operation should be attended with as little risk as possible and with as little damage to the vessels and nerves as is consistent with a complete removal of the disease. The old incision along the anterior border of the sternomastoid leaves a most unsightly scar, and has been abandoned for the transverse one following the creases of the neck, as suggested by Kocher. When most of the enlarged glands are in the posterior triangle an additional longitudinal incision is made from the posterior edge of the swelling downward. When sinuses exist their orifices should, if possible, be included between elliptical incisions, and any damaged skin in connection with superficial abscesses should be removed with a free hand. Whatever incision is adopted, attention must be paid to two important structures: 1. The internal jugular vein should never be divided and tied if it can be avoided, and in most cases this is possible. There is fortunately a fairly thick layer of fascia between the glands and the vein, and it is to this intervening carotid sheath that adhesions are usually seen. Separation is best effected by the point of a sharp scalpel, the vein being more likely to be torn by a so-called blunt dissector. 2.

Division of the spinal accessory nerve should always be avoided, as the resultant drooping of the shoulder constitutes a very real deformity, causes loss of power, and in children is an almost certain source of lateral curvature. In the larger cases the glands should be removed in two groups so as to ensure the definition of the nerve in the posterior triangle.

Where sinuses or broken down glands are present the whole wound should be flushed out with a 1 to 1,000 solution of mercury biniodide. In some cases incision and curetting give good results, but must always be followed by prolonged rest, open air treatment, and the best of food—conditions only obtainable by the well-to-do. The rapid improvement in the general health is often striking. Operations should not, as a rule, last more than ninety minutes. The author has seen only one case of meningitis following removal of tuberculous glands, occurring in a very unhealthy child with involvement of both sides of the neck and both axillæ.

4. **Lupus.**—Bowker reports seven cases of lupus successfully treated by the injection of Koch's lymph and arsenic, combined with the thorough extirpation of the diseased tissue. If the wound left after extirpation is extensive, small skin grafts will be found of great service in promoting healing. All the cases quoted had been previously unsuccessfully treated by scraping or burning.

5. **Trochanteric Bursal Suppuration.**—Teale calls attention to the fact that suppuration of the bursa intervening between the trochanter major and the flat tendon of the gluteus maximus, may occasionally simulate hip disease. The following points should be borne in mind: (1) The frequent history of a fall, and the absence of tuberculous history or symptoms; (2) the absence of tenderness on pressure of the head of the femur against the acetabulum; (3) the absence of marked rigidity of the hip joint, or its disappearance under an anæsthetic; and (4) the promotion of a rapid cure by dividing the flat tendon of the gluteus maximus.

6. **Cancer of the Tongue.**—Nash reports three cases of cancer of the tongue, in which the patients all died within a period of sixteen days. It was further ascertained that two of the patients were accustomed to drink beer out of the same tankard, and that the third drank at the same tavern, and possibly out of the same vessel. A fourth man, who used to drink out of the same tankard as the first two, had died a year previously of cancer of the rectum. These facts certainly suggest the possibility of direct transmission of the disease.

7. **Lupus.**—Leaf reports the case of a woman aged thirty-six years, suffering from lupus of the forehead, right arm, and elbow, which he treated by excision. So far (two months later) there has been no return of the disease. The following advantages can be claimed for excision over the Finsen light or the x rays: (1) It is more radical; (2) it saves time; and (3) it is less expensive.

Letters to the Editor.

DISEASED FAUCIAL TONSILS.

172 METCALFE STREET,
OTTAWA, CANADA, November 17, 1903.

To the Editor,

Sir: In your issue of October 31st, I was particularly interested by an article of Dr. Eugene Davis's on diseased faucial tonsils in the adult, having had considerable experience in the treatment of the same, not only in private practice, but also in the clinics devoted to the nose and throat in Berlin and Vienna.

The tonsils of which Dr. Davis speaks in his article are of the insignificant and harmless-looking kind, and it is concerning these that I wish to make a few remarks.

Granted that it is impossible to grasp the tonsil with the fork of an ordinary amygdalotome, why use a tonsil punch or perform an excision with a guarded scalpel or an *écraseur* when we can overcome the condition by a simpler and almost bloodless operation? Allow me to refer to a typical case which I am at present treating by means of the hook which I had made by a jeweler—of hardened white metal wire (No. 12, I think it is).

The patient is a carpenter, aged thirty-five, of good physique and perfectly healthy. He came to me complaining of a pain, more or less constant, at the base of the tongue on the right side. Though the back of the tongue was coated, there was no sign of any swelling or pain on pressure thereon. The anterior pillar on the right side was of a deep red color and slightly bulging, the tonsil being invisible.

I cocaineized the pillar and the parts behind it, then with the volsella drew the pillar forward and outward, in this way exposing an irregular and sclerosed tonsil with crypts full of white, cheesy, stinking masses. Next I cocaineized the tonsil more thoroughly and with my tonsil hook removed some of the cheesy substance to prove to the patient the cause of his bad breath and the occasional bad taste in his mouth.

Before going further I shall describe the hook above referred to; it has a straight stem and is mounted in the handle of a laryngoscope so that it can be protruded to any desired length. The point is blunt and rounded, the inner edge only is sharpened; the hook has two rounded right angles in it and is nearly half an inch in width. In shape it resembles the butt end of a meat hook, such a one as is suited to hang on a scantling.

Now, to come back to my patient: I introduce the point of the hook into one of the crypts, turn it downward, and, as the point emerges on the surface of the tonsil or possibly from the mouth of another crypt, I tear it out, in this way laying open one or more cavities. After the slight accompanying hæmorrhage ceases, I daub the tonsil dry and with a probe, the end of which has been wound with a little absorbent cotton and suitably bent, I apply a solution of ferric chloride or silver nitrate to the torn surfaces. During the following two or three days I make similar applications so as to prevent the glueing together of the torn edges.

The results and advantages of this operation are as follows:

1. No more retention of tonsil secretion.
2. No more danger from tonsillar abscesses.
3. No bad breath having its source in the tonsil.
4. No pain in swallowing or speaking.
5. No adhesions left between the pillars and tonsil, as these also are attended to by the hook.
6. No opportunity for the accumulation of food particles in, before, or behind the tonsil.
7. The tonsil tissue atrophies considerably after the hook operation, but no deep excavation is left between the pillars, as is often seen after the use of the tonsil punch or following an excision.
8. The hook operation is free from all dangers of severe hæmorrhage.
9. The pillars are not injured.
10. The hook operation does not prevent the patient from attending to his business.
11. Both tonsils can be attended to at one sitting.

I am indebted for this method of treatment to Professor Rethi, of the General Hospital, Vienna, in whose ambulatorium I was fortunate enough to receive the appointment as second assistant.

JULIUS E. KLOTZ.

THE ADMINISTRATION OF DIPHTHERIA ANTITOXINE.

537 FIFTH AVENUE, November 18, 1903.

To the Editor,

Sir: In the issue of your journal for November 14, 1903, appears an article entitled *A Plea for the More Frequent Use of Antitoxine*, in which Dr. C. F. Welden, of Conemaugh, Pa., expresses views as to the administration of antitoxine which are so completely at variance with those held by myself and, I believe, also by all of those who have had a large experience in the use of antitoxine, that I desire to call attention to them. I really fear if the method advised by Dr. Welden were universally carried out, many of the great advantages of antitoxine in the treatment of diphtheria would be lost, and any ill effects which might arise from its administration would be increased.

Dr. Welden advocates the use of antitoxine in frequent doses, i. e., every three hours for three or four doses. He cites one case as an example of the method of his treatment and makes the full deduction that "by repeated injections every three hours we are able to keep the activity of the organisms under control and more easily and permanently saturate the system in a short time." In neither of these two deductions can I agree with Dr. Welden. By "organisms," I take it, Dr. Welden refers to the Klebs-Loeffler bacilli, and diphtheria antitoxine can have no effect upon the activity of bacilli, but counteracts the effect of the toxins developed by them, and I can see no reason for believing, particularly from any deductions from the case he cites, that the system can be more permanently and easily saturated with antitoxine by giving repeated doses than by giving one single dose of the proper number of units (preferably too large a dose than too small a one). It was my fortune in the summer of 1894 to use for the first time in

this country diphtheria antitoxine, being at that time in charge of the board of health hospitals, where the opportunity was ample for observing the results of its use, and these results were presented before the New York Academy of Medicine, and later before the American Medical Association at Atlantic City, and published respectively in the *Medical Record* and the *Journal of the American Medical Association*. On both these occasions the fact was brought out that no salutary reaction from the use of antitoxine was to be expected until at least nine or ten hours had elapsed after the injection.

A continued and large experience in the treatment of diphtheria has not developed any change in this opinion, and I am convinced that this is the view of all those who have a large experience in the administration of antitoxine in diphtheria, such as the antitoxine inspectors of the board of health of New York have. In the case cited by Dr. Welden, the patient received three doses of antitoxine at intervals of three hours. He was prepared to give a fourth dose, but at six o'clock, the time for the fourth dose, he found the child in such a good condition that he deemed it unnecessary. At the time for the fourth dose, which was just about ten to twelve hours after his original dose, he found the child well, the result undoubtedly being due to his first dose only. The child undoubtedly continued to improve on the second dose and also on the third dose, but in my opinion all three doses should have been given in one and given at the first instance. In fact, every case of diphtheria, I believe, should receive careful examination by the physician as to the severity of the type the disease has assumed, and the dose of antitoxine should be based upon the severity of the disease and the age and condition of the child. We should avoid frequent doses of antitoxine as much as possible by sizing up the case properly and giving the full dose as early as possible, and I know that the large experience of those connected with diphtheria work in the New York Health Department bears me out in this statement.

A. CAMPBELL WHITE.

RENAL DECAPSULATION FOR NEPHRITIS.

308 WYOMING AVENUE, SCRANTON, PA.,

November 25, 1903.

To the Editor,

Sir: Two recent letters to the editor, one from Dr. Byron Robinson, on The Ferguson-Edebohls Operation, or Renal Decapsulation, published in your valued *Journal* of November 7, 1903, page 918, and one from Dr. G. M. Edebohls, on Renal Decapsulation, published in your issue of November 21, 1903, page 1014, have interested me, and for a personal reason I request the privilege of a few comments. I was present at the meeting of the American Medical Association at New Orleans in May, 1903, when Dr. A. H. Ferguson read his paper advancing his claims to priority in connection with the surgical treatment of nephritis, and in the discussion I took the liberty of emphatically denying the correctness of those claims. From having always kept in close touch

with all the literature of the subject I felt sure of my ground, but at the time was not prepared with the exact data and dates necessary to fortify my position. Since then I have always felt that it was due to Dr. Ferguson as a matter of justice to produce these data and facts, and the letter of Dr. Robinson has recalled that duty to my mind.

Dr. Robinson in his letter supports the claim advanced by Ferguson (*Journal of the American Medical Association*, July 4, 1903) to priority of publication of renal decapsulation. There can be no question, and there does not appear to be one with either Robinson or Ferguson, as to who deserves the credit of first proposing and of first performing renal decapsulation with the deliberate purpose in view of bringing about a cure of chronic Bright's disease; that honor belongs indisputably to Edebohls. Let us examine now as to whether and as to how far Ferguson's claims to priority of publication will bear close scrutiny and investigation. To do so intelligently we must first distinguish between renal decapsulation as a mere technical operative procedure and renal decapsulation performed for the cure of nephritis. The latter constitutes the question at issue.

Dr. Robinson in his letter quotes Ferguson as stating at a meeting of the Chicago Gynecological Society on December 16, 1898, that he considered "the peeling off of a thick pathological capsule as a thing desirable." This is a part statement only; the official report of the transactions of that meeting (*American Gynecological and Obstetrical Journal*, XIV, 1899, page 197) quotes Ferguson as stating verbatim: "I do not wish to be misunderstood with reference to removing the normal capsule of the kidney. I condemn this and do not do it. But the peeling off of a thick pathological capsule is a thing that is desirable." In connection with these remarks it should be remembered that they were made in the course of a symposium on movable kidney; that they referred to renal denudation as a part of the technics of nephropexy; and that nephritis, either acute or chronic, was not under discussion. But Edebohls has shown in his letter that renal decapsulation as a part of the technics of nephropexy, or accidentally performed in the course of attempts to expose or deliver the kidney, is original with neither himself nor Ferguson, having been performed by E. Rose as a routine procedure in nephropexy long before the entrance of either Ferguson or Edebohls upon the field of renal surgery. Furthermore, the *essential* of the Edebohls operation of renal decapsulation for nephritis consists in *invariably* removing the kidney capsule, whether normal or pathological, whether loose or tight.

Thus much for Robinson's support of Ferguson's claims. Ferguson himself does not rely upon this support, possibly recognizing its weakness, but bases his claims to priority of publication upon the report of two cases made by him to the Chicago Academy of Medicine (*Journal of the American Medical Association*, March 18, 1899, not March 11, 1899, as incorrectly cited by both Ferguson and Robinson). A careful perusal of the history of these two cases will show that the patients were not operated upon for the cure of

nephritis, that in fact the nephritis was only disclosed by subsequent microscopical examination of pieces of kidney tissue removed at the operation. To quote Ferguson himself more than four years later (*Journal of the American Medical Association*, July 4, 1903, page 8), "in these two instances no positive diagnosis was made before operating." In his original paper Ferguson states that in the first of the two cases under discussion "no diagnosis was made, but a stone in the kidney was suspected and exploration advised;" while in the second an operation was undertaken upon the diagnosis of "septic kidney." By what stretch of the imagination can these two operations upon which Ferguson bases his claim to priority of publication be claimed by Ferguson as operations undertaken for the cure of nephritis? Furthermore, proof, if such were needed, that these were not operations for nephritis is furnished by the details of the two operations as described by Ferguson. In the first operation, after needling the kidney in search of suspected stone, "the fat being removed, the peeled-off capsule of the kidney was sutured to the lumbar fascia on either side of the wound, thus suspending it in the lumbar region;" a case of exploratory puncture of the kidney followed by nephropexy with removal of the fatty capsule and denudation, necessarily concomitant features. In the second operation "the capsule was split and peeled from two thirds of the kidney;" the kidney was then explored with blunt needles, its pelvis opened by incision through the kidney, and "the capsule was sutured to the lumbar fascia;" an exploratory nephrotomy followed by nephropexy.

Ferguson, in his recent contribution, charges that "the date of this publication (*Journal of the American Medical Association*, March 18, 1899) has been overlooked by Dr. G. M. Edebohls in all his articles." This is undoubtedly true, and for the same reason, probably, that the article in question was overlooked by both Guiteras and myself in our independent diligent searches of the literature—that reason being that the publication alluded to by Ferguson *does not* appear under the head of original articles, but is embodied in the report of a discussion before the Chicago Academy of Medicine. It first appeared as an original article in the *Medical Standard* of June, 1899, and its publication there is cited both by Guiteras and by Edebohls, whose contribution to the surgical treatment of nephritis appeared in the *Medical News* of April 22, 1899. In this paper Edebohls details six cases of operation upon kidneys, the seat of chronic nephritis, in one of which, performed January 10, 1898, the operation was deliberately undertaken with a view to bringing about the cure of a chronic nephritis diagnosticated as such before operation. In view of the fact already shown that Ferguson's two operations, performed early in 1899, were *not* for nephritis, the date of publication of Ferguson's article appears quite irrelevant. Ferguson's additional statement that "it will be seen in the description of my experience, our work (that of Ferguson and Edebohls) has been developing contemporaneously," is true only when supplemented by the statement that the operative work of Edebohls upon kidneys affected with nephritis,

beginning as it does in 1892, antedates by many years the beginning of Ferguson's work in the same direction. It may appear strange also that Ferguson's claim to priority of publication should be advanced only more than two years after the appearance of the formal proposition of Edebohls (*Medical Record*, May 4, 1901, page 691) to treat all cases of chronic Bright's disease by renal decapsulation.

From what has been said the conclusion is inevitable that neither Ferguson nor Edebohls was the first to perform renal decapsulation as such, and that Ferguson was neither the first to perform nor the first to publish renal decapsulation for the cure of nephritis. Priority of proposal, priority of actual performance, and priority of publication of renal decapsulation for the cure of nephritis belong indisputably to Edebohls.

Edebohls (*Medical Record*, April 26, 1902) and Guiteras (*New York Medical Journal*, May 17, 1902), independently of each other and at about the same time, thoroughly investigated the history of the development of the surgical treatment of nephritis, and the conclusions reached by them after a full, fair, and critical review of the literature are practically identical. These conclusions are tabulated by Edebohls, as far as his own work is concerned, in the form of five specific claims, each of which I have taken the pains to investigate searchingly, and each of which I find to be absolutely correct and unassailable. Guiteras summarizes his researches as follows: "It is therefore with great satisfaction that I am able to say conscientiously that Edebohls, of New York, is entitled to the full credit of having been the first actually to perform an operation on the kidney for the sole and primary purpose of curing chronic Bright's disease, and that his only possible competitors for this claim are Harrison, who operated in acute cases with the intention of relieving the symptoms and preventing their becoming chronic, and Israel, who operated in cases of chronic nephritis for the relief of hæmaturia and renal colic, and who himself emphatically disclaims any intention of introducing the surgical treatment of the type of cases of chronic nephritis." To cite but one from among the many appreciative comments upon the work of Edebohls which have appeared in the literature of the past two years, I quote from an editorial in the May, 1902, number of the *Canadian Journal of Medicine and Surgery*: "In an editorial, it would not be easy to do more than mention some of the more important features of Dr. Edebohls's paper. The paper is of great value, and its author deserves credit for his surgical skill and, in our opinion, greater credit for his observations on the restoration of urinary secretion in diseased kidneys. He has elaborated a working theory of the *restitutio ad integrum* of a nephritic kidney after its capsule has been stripped off, by observations made on the living bodies of patients cured by his operation."

In conclusion, I may be permitted to reiterate that Edebohls is without question the originator and father of the treatment of nephritis by renal decapsulation, and to add my conviction that if ever it was proper to designate an operation by the name of a surgeon, renal decapsulation for ne-

phritis should certainly be called the Edebohls operation. This honor, waived by Edebohls in his letter on the score of principle, has been cheerfully accorded him by a number of medical authors, including such men as Caillé, Rotch, and Tyson. The last of these, Tyson, in a paper read before the Pennsylvania State Medical Society, and published in the *New York Medical Journal and Philadelphia Medical Journal* for October 10th, credited the origin of surgical treatment for the cure of Bright's disease entirely to the efforts of George M. Edebohls. No one who knows Professor Tyson will, for a moment, doubt his honesty of purpose, nor will he on the other hand question the accuracy of assertions made by this distinguished physician and famous urologist, noted the world over for his adherence to the principles which accentuate both of the qualifications, honesty and accuracy. For my own part, I wish to say, further, in regard to the offering of this letter, that the innate modesty of Dr. Edebohls swings him too far away from that justice to which the opinion of even one's self entitles him; so I, for one, shall continue in the future as I have in the past, to refer to the operation of renal decapsulation for nephritis as *Edebohls's operation for the cure of Bright's disease*.

RICHARD H. GIBBONS.

Book Notices.

Textbook of Diseases of the Eye for Students and Practitioners of Medicine. By HOWARD F. HANSELL, A. M., M. D., Clinical Professor of Ophthalmology, Jefferson Medical College, etc., and WILLIAM M. SWEET, M. D., Demonstrator of Ophthalmology, Jefferson Medical College, etc. With Chapters by CHRISTIAN R. HOLMES, M. D., CASEY A. WOOD, M. D., D. C. L., WENDELL REBER, M. D. With 256 Illustrations, including Colored Plates. Philadelphia: P. Blakiston's Son & Co., 1903. Pp. xv-532. (Price, \$4.00, net.)

The number of ophthalmic textbooks which have appeared within the last few years is evidence of the increased importance of this branch in the eyes of medical faculties as well as of the practitioner, and the time has passed when a smattering of elementary optics sufficed for the purposes of the graduating student. The advance in teaching methods is reflected in the volume under discussion, which is characterized by thoroughness, lucidity, individuality of style and method, and, above all, discrimination in the proportion of space devoted to important as opposed to rare or curious conditions, and by recognition of the most recent progress in special departments of oculistic practice. The brief but complete exposition of the diagnostic and therapeutic use of radiography, of magnet operations, the economics of vision, the manipulation of the tropometer and clinoscope, may be cited as instances in point.

These chapters add greatly to the value of the publication as a reference handbook of ophthalmic practice, and this value is enhanced by the stress which is laid, throughout, on the subject of treatment.

The surgical procedures are described clearly and graphically, and illustrated by numerous excellent drawings, while non-operative measures, local as well as somatic, are explained in few words. Generalities are conspicuously absent, a feature all will appreciate who have looked up some practical point in textbooks and too often found vague or incomplete reference, instead of accurate and complete instructions.

Special chapters have been contributed on Diseases of the Lacrymal Apparatus, Orbit, and Cavities Accessory to the Orbit, by Holmes, of Cincinnati; Ocular Symptoms in General Disease, by Casey A. Wood; and The Pupil in Health and Disease, by Reber.

The presswork of the volume is unusually fine, even for the publishers whose firm name appears on the title page, and who have taught us to expect fine things in their publications.

Lessons in Disinfection and Sterilization. An Elementary Course of Bacteriology, together with a Scheme of Practical Experiments Illustrating the Subject Matter. By F. W. ANDREWS, M. A., M. D., Oxon.; F. R. C. P., Lond.; D. P. H. Cantab; Lecturer on Pathology, Pathologist, and Sanitary Officer to St. Bartholomew's Hospital, London. Philadelphia: P. Blakiston's Son & Co. London: J. & A. Churchill, 1903. Pp. 222. (Price, \$1.05.)

In a very concise way, the author has gone over the subject and given us a book which is most excellent for ready reference. The book is founded upon a series of lectures, delivered in 1902 for some of the nursing staff of St. Bartholomew's Hospital. Although it is necessarily elementary in parts, its conciseness, accuracy, and thoroughness will appeal to both nurses and medical men.

Tumeurs du placenta et tumeurs placentaires (placentomes malins), avec 24 figures. Par le Dr. PAUL BRIQUEL. Paris: C. Naud, 1903. Pp. 626.

A work of this character might have been expected, and, indeed, the time is ripe for its appearance. So much has been written about chorioepithelioma in recent years that a critical collection and review of journal articles and of individual contributions is especially welcome. In this monograph Briquel has collected all the cases, in tabular form, published up to the time of the appearance of his book.

He discusses first the placenta and its physiology in the light of modern views, laying emphasis upon the passage of foetal parts into the circulation of the mother. The benign tumors of the placenta are then taken up, and this is followed by a consideration of malignant "placentomata," this name being preferred by the author to chorionic designations. The fourth division treats of the teratomatous character of placentomata and moles, and includes a discussion of teratomata of the testicles, lately given a great deal of prominence in pathological work.

Throughout the book the author has refrained from entering into clinical and histological descriptions, and, although neither element is neglected, the reading of the monograph is rendered much easier by this judicious condensation. A complete bibliography of the subject is appended.

The importance of placental growths to obstetrics, gynecology, and pathological anatomy is so great that a brief *résumé* of the author's conclusions may well be given here. He states that the normal function of the placenta is to nourish the foetus, but this function becomes degraded or abrogated if the placenta is the seat of neoplasms, hyperplastic conditions, or degenerations. These may be true new growths, such as angiofibromyxomata of the chorion. The epithelial elements of the chorion undergo proliferation in this abnormal state, giving rise to a vesicular mole.

The syncytiocellular elements, primarily derived from the foetal ectoderm, form the lining of the villositities. This lining becomes converted into syncytium under the influence of the maternal blood, which plays an active rôle in the transformation, becoming trophoblastic, a true nutritional organ of the foetus. In cases of vesicular mole, however, it no longer fills this rôle when all traces of the foetus have disappeared; it takes on a "functional egotism" which is marked by intense proliferation, resulting in a malignant placentoma.

The malignant placentoma is most often uterine; but its primary neoplastic forces may not, however, reside in the organ of gestation proper, but may be located at some distance from it, as in the vagina. But, wherever it is, it is taken up by the blood current and disseminated throughout the body. In general, the syncytiocellular elements of the placenta, of a mole, and of a placentoma, are identical. They live in and through the blood, and their aggressive and destructive properties are most marked in placentomata. Sometimes—as has lately been well established—these neoplasms, developing during and after pregnancy, are teratomatological in character.

Briquel concludes his study by remarking upon and emphasizing the identity of structure observed in the normal placenta of abortion and of a mole, the covering of the villi in retention, the elementary types of the malignant placentoma, and some types of teratomata. These elements are of a teratoid nature through relation to the individual adult, whether it is trophoblastic or in a state of independent proliferation, whether it invades the organism of a woman after pregnancy, or whether it infects an individual coincidentally with the generalization of a teratoma.

From what little we have cited it will be seen that this is a work of great importance to the pathologist, to the gynecologist, and to the obstetrician. The monograph belongs to the newer fields of observation but recently tilled, and it represents the latest thought and the newest investigations. Its freshness, originality, and completeness render it an essential to everyone who is even remotely interested in the subject with which it deals. Several excellent illustrations are included in the text.

LIST OF BOOKS RECEIVED.

The After-Treatment of Operations. A Manual for Practitioners and House Surgeons. By P. LOCKHART MUMMERY, F. R. C. S., Eng., B. A., M. B., B. C., Cantab., Demonstrator of Operative Surgery, St. George's Hospital, Late Senior House Surgeon, St. George's Hospital. New York: William Wood & Company. 1903. Pp. vi-221. [Price \$2.00 net].

The Practical Medicine Series of Year Books. Comprising Ten Volumes on the Year's Progress in Medicine and Surgery, Issued Monthly, Under the Editorial Charge of GUSTAVUS P. HEAD, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume VIII. *Materia Medica and Therapeutics, Preventive Medicine, Climatology, Suggestive Therapeutics, Forensic Medicine*, Edited by GEORGE F. BUTLER, Ph. G., M. D.; HENRY B. FAVILL, A. B., M. D.; NORMAN BRIDGE, A. M., M. D.; DANIEL R. BROWER, M. D.; HAROLD N. MOYER, M. D. July, 1903. Chicago: The Year Book Publishers, 40 Dearborn Street. Pp. 326. (Price of volume, \$1.50).

The Practical Medicine Series of Year Books. Comprising Ten Volumes on the Year's Progress in Medicine and Surgery, Issued Monthly, Under the General Editorial Charge of GUSTAVUS P. HEAD, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume IX, *Physiology, Pathology, Bacteriology, Anatomy, Diagnosis*, Edited by W. A. EVANS, M. S., M. D.; ADOLPH GEHRMANN, M. D.; WILLIAM HEALY, A. B., M. D. August, 1903. Chicago: The Year Book Publishers, 40 Dearborn Street. Pp. 232. (Price, \$1.25 per volume).

Modern Methods in the Surgery of Paralysis. With Special Reference to Muscle-Grafting, Tendon-Transplantation, and Arthrodesis. By A. H. TUBBY, M. S., Lond.; F. R. C. S., England. Surgeon to and Lecturer on Clinical and Orthopædic Surgery, and in Charge of the Orthopædic Department at Westminster Hospital; Senior Surgeon to the Evelina Hospital for Sick Children; Surgeon to the National Orthopædic Hospital; Consulting Surgeon to the Hospital for Hip Diseases, Sevenoaks, Corresponding Member of the American Orthopædic Association; Chairman of Council of the Society for the Study of Diseases in Children, etc., and ROBERT JONES, F. R. C. S. E., Honorary Surgeon to the Royal Southern Hospital, Liverpool; Honorary Surgeon, Liverpool Hospital for the Chronic Diseases of Children; Corresponding Member of the American Orthopædic Association, etc. Illustrated with 93 Figures and 58 Cases. London: Macmillan & Company, Limited. New York: The Macmillan Company. 1903. Pp. xi-311.

Transactions of the American Otological Society. Thirty-sixth Annual Meeting, Washington, D. C., May 12 and 13, 1903. Vol. VIII. Part II. Published by the Society: Mercury Publishing Company, Printers, New Bedford, Mass. 1903. Pp. 341.

Royal Society. Reports to the Malaria Committee. Eighth Series. Contents—Reports by Messrs. STEPHENS, and CHRISTOPHERS. The Occurrence of Blackwater Fever in India. Malaria in an Indian Cantonment; an Experimental Application of Anti-Malarial Measures. Brief Summary of Conclusions Arrived at in the Previous Papers. Report by Captain JAMES, I. M. S. A Report of the Anti-Malarial Operations at Mian-Mir (1901-1902). London: Harrison & Sons, St. Martins Lane. Printers in Ordinary to His Majesty. 1903. Pp. 77. (Price, two shillings).

Handbuch der Geschichte der Medizin. Begründet von Dr. Med. Th. PUSCHMANN, Weiland Professor an der Universität in Wein. Bearbeitet von Geh. San-Rat Dr. BARTELS, Berlin; Dr. WOLF BECKER; Dr. IWAN BLOCH, Berlin; Professor Dr. BORUTTAU, Göttingen; Professor Dr. CHIARI, Prag; San-Rat Dr. LEOPOLD EWER, Berlin; Professor Dr. FASBENDER, Berlin; Professor Dr. FOSSEL, Graz; Professor Dr. ROBERT FUCHS, Dresden; Dr. GEIST JACOBI, Frankfurt A. Main; Professor Dr. HELFREICH, Würzburg; Professor Dr. HEYMAN, Berlin; Hofart Dr. HOFER, Tölz; Professor Dr. HORSTMANN, Berlin; Professor Dr. HUSEMANN, Göttingen; Professor Dr. IPSEN, Innsbruck; Oberstabsarzt Professor Dr. KÖHLER, Berlin; Dr. G. KORN, Berlin; Professor Dr. KOSSMANN, Berlin; Privatdozent Dr. P. TH. MÜLLER, Graz; Privatdozent Dr. NEUBURGER, Wien; Dr. FREIHERR FELIX v. OEFELE, Neuenahr; Dr. OTT, Berlin; Professor Dr. PAGEL, Berlin; Professor Dr. FRAUNHOF, Graz; Dr. PREUSS, Berlin; Professor Dr. RILLE, Leipzig; Dr. M. SACHS, Berlin; Professor Dr. SCHAEER, Strassburg, i. E.; Sanitätsrat Dr. SCHEUBE, Greiz; Professor Dr. SCHRUTZ, Prag; Privatdozent Dr. RITTER von TÖPLY, Wien; Professor Dr. VIEBORDT, Tübingen. Herausgegeben von Dr. Med. MAX NEUBURGER, Docent an der Universität in Wien, und Dr. Med. JULIUS PAGEL, Professor an der Universität in Berlin. Zehnte Lieferung. 11 Band Bog. 52-60 (Schluss), und 111 Band Bog. 1-2. Jena: Verlag von Gustav Fischer. 1903. Einzelne Lieferungen werden nicht abgegeben. Pp. 992. Vols. 6 and 7.

Miscellany.

Business Was Bad!—In *Poems from the Greek Anthology* (Cameo Series, LXXIX), Richard Garnett gives the following plaint of a lovesick physician:

I, an enamoured doctor, fain would give,
Venus, to thee a generous donative
That fair Callistrata thou might'st incline
To cease from maiden coyness, and be mine;
But sickness hath not much prevailed of late,
And I perceive with grief my purse's weight
Sorts with my liberal intent but ill:
Wherefore I pray that thou wouldst take a pill.

Studies of the Periosteal Perception of Vibrations.—At a meeting of the New York Neurological Society, held on November 3rd, Dr. Edwin G. Zabriskie read a paper with this title. He said that the best method of testing this sense was by means of a tuning fork set in vibration and then placed firmly over the bony prominences where there was the least amount of tissue between the bone and the skin. The fork selected for this purpose was that devised by Dr. Dench, giving sixty-four vibrations a second, because of the power of such a fork to send the vibrations through a considerable layer of tissue. The results were checked by means of a fork having 512 vibrations. In making the observations the intelligence of the patient must be well considered; even intelligent people were apt to confound the pressure of the fork with the vibrations. It was well to place the fork first where the vibrations would be plainly felt, as over the cranium, thus impressing upon the patient the kind of sensation to be noted. The lesions studied were divided into three groups, viz.: 1, Those of central origin. 2, Those of the nerves themselves. 3, Those of the bones and joints. The first group formed by far the greatest number of cases studied, and the most interesting ones were those of tabes dorsalis, cerebrospinal syphilis, the lesions producing Brown-Séquard's symptoms and hemiplegia. When there were profound disturbances of the integument, there might be slight changes or none at all in the periosteal perception. Most commonly there was a wider distribution or a more profound disturbance of the periosteal perception than that of the integument. Sometimes there were only certain areas of one bone over which the periosteal perception was lost. There were only three cases with the Brown-Séquard symptoms that were studied, and, hence, no definite conclusions could be drawn. As yet he had been unable to establish a definite relation between the periosteal perception of vibrations and the position sense. Some cases of sciatica presented an interesting condition. In several of these there was no loss of periosteal perception of vibrations or of the position sense, although there were definite disturbances of cutaneous sensation. In about half the cases there was a diminution of the periosteal perception on the affected side. Of the cases of alcoholic neuritis with slight involvement of the cutaneous sensibility, none showed any change in the periosteal perception. In a case of beginning acromegaly there was no disturbance

of the position sense. In the joint cases, when there was evidence of definite absorption of the bone, there was loss of vibration confined to the affected bone area. In a case of chronic arthritis of the hip joint the perception of periosteal vibrations on the affected side of the pelvis was decidedly diminished. In the cases of arthritis deformans, only one patient showed any disturbance of the position sense, and that one also exhibited marked cutaneous disturbances over the left arm and right leg, and over these areas the vibrations were less plainly perceived. In a case of cerebellar tumor the position sense was profoundly disturbed. There were no cutaneous disturbances or changes in the periosteal perception of vibrations. The speaker said that he had examined seven or eight well defined tuberculous joint lesions, but none of them showed any change in the periosteal perception of vibrations. He had himself been unable as yet to come to any conclusions.

The Index Medicus.—An excellent letter by Dr. J. W. Ballantyne, of Edinburgh, appealing for more extended support for the *Index Medicus*, appears in the *British Medical Journal* for November 14th, Dr. Ballantyne says in part:

It will be a real misfortune if, after the grant from the Carnegie Institution has brought the price of the *Index* to a level within the means of nearly every medical practitioner, the number of subscribers should still be so small as to lead to the belief that the profession does not care to have the *Index* on any terms.

The *Index* is no mere list of the medical literature of the preceding month. It is a carefully classified list, in which, with comparatively little trouble, one can find the references to all the articles and books that have appeared on any given subject within the past month; and then, with the annual index to the whole volume which appears at the end of the twelve months, one can have all the literature for that year at one's fingers' ends. The titles of the papers are given in full, so that the mere reading of these will give the man who consults his *Index Medicus* a very fair idea of the trend of opinion in the theory and practice of any special subject in which he may be interested. The titles of papers published in Russian and Bohemian, and in some other less generally-known tongues, are translated into English. For instance, in the July part of the *Index Medicus* for this year the reader who is interested in the question of leprosy will find the titles of three papers by Mr. Hutchinson on the dermatitis of leprosy, on fish eating and leprosy, and on leprosy in India. He will discover, also, that there have been articles on the contagiousness of leprosy, on leprosy in the newborn and the heredity of leprosy, on mixed leprosy, on nervous leprosy, on cranial periostoses in leprosy, on the public prophylaxis of the disease, on its treatment by chaulmoogra oil, and on native Christians in Indian leper asylums. Perhaps the reader is interested more in the question of anæsthetics? He will in the July number of the *Index* find over thirty article-titles dealing with all that the literature of the month has to say on that subject, including the use of somnoform, of ethyl bromide, of anæsthol, of beta-eucaine, of epidural injections of cocaine, of yohimbin, the risk of ignition of ether vapor in presence of a closed electric light, the anæsthetization of difficult and bad subjects, the use of massage of the heart in chloroform collapse, etc.

Or, again, he may want to know what is being achieved by the use of radiotherapy in cancer; he will find the suggestive titles of fourteen articles on that subject. The subject of the surgical treatment of nephritis by decapsulation of the kidney he will also find references to under that heading. On the Bossi dilator in obstetrical emergencies he will discover several articles, including one by Bossi himself and another by Dührssen; he will note that the list of papers dealing with symphysiotomy is comparatively short, while that on the treatment of lupus by the Finsen light method

is comparatively long. In a sentence, every worker in medicine will find references to articles which are of interest to him, and without which he cannot pretend to be able to keep abreast with progress.

Surely, continues Dr. Ballantyne, the profession in Britain and America will see to it that the *Index Medicus* receives sufficient support to demonstrate to the Carnegie Institution that it is not regardless of the scientific and literary and cosmopolitan aspects of the work it is doing.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending November 27, 1903:

Smallpox—United States.			
Place.		Cases.	Deaths.
Alabama—Mobile	Nov. 8-21	21	
Colorado—Denver	Oct. 18-21	10	
Illinois—Belleville	Nov. 8-21	11	
Louisiana—New Orleans	Nov. 15-21	1	
Massachusetts—Lawrence	Nov. 15-21	1	
Michigan—Detroit	Nov. 15-21	4	
New Hampshire—Manchester	Nov. 15-21	3	
New Jersey—Camden	Nov. 15-21	4	
New York—New York	Nov. 15-21	4	2
Ohio—Cleveland	Nov. 15-21	1	
Ohio—Youngstown	Nov. 15-21	11	
Pennsylvania—Altoona	Nov. 15-21	2	
Pennsylvania—Carbondale	Nov. 15-21	2	
Pennsylvania—Erie	Nov. 8-21	3	
Pennsylvania—Johnstown	Nov. 15-21	3	
Pennsylvania—Philadelphia	Nov. 15-21	68	7
Pennsylvania—Pittsburgh	Nov. 15-21	32	6
Tennessee—Memphis	Nov. 15-21	3	
Utah—Salt Lake City	Nov. 8-14	3	
Smallpox—Foreign.			
Austria-Hungary—Prague	Nov. 1-7	9	
Brazil—Rio de Janeiro	Oct. 19-25	40	34
Canada—Manitoba, Winnipeg	Nov. 8-14	1	
Colombia—Barranquilla	Nov. 2-18	1	
Ecuador—Guayaquil	Oct. 18-31	2	
France—Paris	Nov. 1-7	3	
Great Britain—Glasgow	Nov. 7-13	7	1
Great Britain—Manchester	Oct. 25-Nov. 7	7	
Gt. Britain—Newcastle-on-Tyne	Nov. 1-7	6	
Java—Batavia	Oct. 11-17	21	6
Mexico—Mexico	Oct. 8-15	1	
Netherlands—Amsterdam	Nov. 8-14	5	
Russia—Odessa	Oct. 19-25	1	
Russia—St. Petersburg	Oct. 25-Nov. 7	126	2
Russia—Warsaw	Oct. 18-24	2	
Spain—Barcelona	Oct. 25-Nov. 7	2	
Turkey—Smyrna	Oct. 19-Nov. 1	68	
Smallpox—Insular.			
Philippine Islands—Cebu	Sept. 1-30	5	1
Philippine Islands—Manila	Sept. 27-Oct. 10	1	
Yellow Fever—United States.			
Texas—Cannel	Nov. 19-23	4	
Texas—Laredo	Nov. 20-23	68	5
Texas—Minera	Nov. 14-23	6	
Texas—San Antonio	Nov. 15-23	7	2
Yellow Fever—Foreign.			
Brazil—Rio de Janeiro	Oct. 19-25	1	
Mexico—Ciudad Victoria	Oct. 25-Nov. 7	14	8
Mexico—Coatzacoalcas	Nov. 1-7	2	
		2 Imported.	
Mexico—Ilnares	Oct. 25-Nov. 7	86	17
Mexico—Merida	Oct. 25-Nov. 7	4	2
Mexico—Tampico	Oct. 25-Nov. 7	3	
Mexico—Tehuantepec	Oct. 25-Nov. 7	2	
Mexico—Vera Cruz	Nov. 7-14	17	5
Cholera—Insular.			
Philippine Islands—Manila	Sept. 27-Oct. 10	90	84
Philippine Islands—Provinces	Sept. 27-Oct. 10	952	750
Cholera—Foreign.			
China—Shanghai	Oct. 3-10	7	
Japan—Nagasaki	Oct. 20-26	49	27
Japan—Yokohama	Oct. 4-10	1	
Straits Settlements—Singapore	Sept. 1-30	1	9
Straits Settlements—Singapore	Sept. 27-Oct. 3	1	1
Turkey—Syria, Alexandria	Oct. 18-24	2	1
Plague—Insular.			
Philippine Islands—Cebu	Sept. 1-30	11	8
Plague—Foreign.			
Brazil—Rio de Janeiro	Oct. 19-25	54	20
China—Newchang	Sept. 26-Oct. 3	144	142
India—Bombay	Oct. 20-27	64	
India—Calcutta	Oct. 18-24	13	
Japan—Yokohama	May 10-Oct. 17	29	23

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending November 28, 1903:

DU BOSE, W. R., Medical Inspector. Ordered to duty as assistant to the Bureau of Medicine and Surgery, Navy Department.

FAUNTLEROY, A. M., Assistant Surgeon. When discharged from treatment, ordered to the *Scorpion*.

GRAYSON, C. T., Acting Assistant Surgeon. Detached from the Naval Proving Ground, Indian Head, Md., and ordered to the Naval Hospital, Washington, D. C.

HUNTINGTON, E. O., Surgeon. Sick leave extended three months.

URIE, J. F., Surgeon. Detached from the Bureau of Medicine and Surgery as assistant to the Surgeon-General, and ordered to the *Missouri*.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department of the United States Army for the week ending November 28, 1903:

ADAIR, GEORGE W., Lieutenant-Colonel and Deputy Surgeon-General. Ordered to St. Paul, Minn., for duty as Chief Surgeon of the Department of Dakota.

BRECHEMIN, LOUIS, Major and Surgeon. Relieved from duty at Ord Barracks, Monterey, Cal., and ordered to San Francisco, Cal., to assume charge of the Medical Supply Depot in that city.

BROOKS, WILLIAM H., First Lieutenant and Assistant Surgeon. Relieved from duty at Vancouver Barracks, Washington, and ordered to the U. S. General Hospital, Washington Barracks, D. C., for duty.

BUSHNELL, GEORGE E., Major and Surgeon. Granted leave of absence for seven days, with permission to apply for an extension of twenty-three days.

BYRNE, CHARLES B., Colonel and Assistant Surgeon-General. Relieved from duty as Chief Surgeon Department of Dakota and ordered to proceed to Omaha, Neb., for duty as Chief Surgeon, Department of Missouri.

DEAN, ELMER A., First Lieutenant and Assistant Surgeon. Will proceed to Washington, D. C., for examination for promotion.

DE SHON, GEORGE D., Captain and Assistant Surgeon. Will proceed to Washington, D. C., for examination for promotion.

GIRARD, A. C., Colonel and Assistant Surgeon-General. Relieved from duty in the Division of the Philippines, and ordered to San Francisco, Cal., where he will report for duty to the Adjutant General of the Army.

GIRARD, J. B., Colonel and Assistant Surgeon-General. Relieved from duty as Chief Surgeon of the Department of Missouri, and ordered to San Antonio, Tex., for duty as Chief Surgeon of the Department of Texas.

GRUBBS, R. B., First Lieutenant and Assistant Surgeon. Relieved from duty at the General Hospital, Presidio of San Francisco, and ordered to Fort Wright, Washington, D. C.

HENDERSON, A. B., First Lieutenant and Assistant Surgeon. Granted leave of absence for seven days, from November 20, 1903.

HOFF, JOHN VAN R., Lieutenant-Colonel and Deputy Surgeon-General. Granted thirty days' leave of absence, to take effect in December, 1903.

JEAN, GEORGE W., First Lieutenant and Assistant Surgeon. Relieved from duty in the Division of the Philippines and ordered to Fort Adams for duty.

KILBOURNE, H. S., Lieutenant-Colonel and Deputy Surgeon-General. Relieved from duty as Chief Surgeon of the Department of California, and ordered to proceed to Manila.

LITTLE, WILLIAM L., First Lieutenant and Assistant Surgeon. Reported for temporary duty as assistant to the Attending Surgeon, San Francisco, Cal.

MORSE, ARTHUR W., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Walla Walla, Wash., and ordered to Vancouver Barracks, Wash.

POWELL, WILLIAM A., First Lieutenant and Assistant Surgeon. Granted thirty days' leave of absence, from November 21, 1903.

RAND, I. W., Captain and Assistant Surgeon. Relieved from duty at Fort Wright, Wash., and ordered to Ord Barracks, Cal.

RICHARDSON, GEORGE H., First Lieutenant and Assistant Surgeon. Granted leave of absence for one month and ten days, from November 21, 1903.

TORNEY, G. H., Lieutenant-Colonel and Deputy Surgeon-General. Relieved from duty at the Medical Supply Depot, and ordered to report to the Commanding General of the Department of California for temporary duty as Chief Surgeon of that Department.

TRUBY, W. F., First Lieutenant and Assistant Surgeon. Ordered to report at the Surgeon-General's office for examination for promotion.

VAN DUSEN, JAMES W., First Lieutenant and Assistant Surgeon. Granted leave of absence for thirty days, with permission to apply for thirty days' extension, from November 30, 1903.

WEBBER, H. A., First Lieutenant and Assistant Surgeon. Relieved from duty in the Division of the Philippines, and will proceed to Fort Walla Walla, Wash., for duty.

Public Health and Marine Hospital Service:

Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the Seven Days ending November 26, 1903:

BILLINGS, W. C., Assistant Surgeon. To proceed to Washington, D. C., and report to chairman of examining board to determine his fitness for promotion to the grade of passed assistant surgeon. November 24, 1903.

CLARK, T., Passed Assistant Surgeon. To proceed to St. Johns, N. B., and assume temporary charge of service during absence of Assistant Surgeon W. C. Billings. November 24, 1903.

CORPUT, G. M., Assistant Surgeon. To proceed to Washington, D. C., and report to chairman of examining board to determine his fitness for promotion to the grade of passed assistant surgeon. November 24, 1903.

CURRIE, D. H., Assistant Surgeon. To proceed to San Francisco Quarantine, California, and assume temporary charge of service during absence of Passed Assistant Surgeon H. S. Cumming. November 24, 1903.

GASSAWAY, J. M., Surgeon. Department letter granting Surgeon Gassaway leave of absence for one month, amended so that said leave shall be for twenty-six days from October 13th.

KERR, J. W., Assistant Surgeon. To proceed to Washington, D. C., and report to chairman of examining board to determine his fitness for promotion to the grade of passed assistant surgeon. November 24, 1903.

LUMSDEN, L. L., Passed Assistant Surgeon. Upon expiration of leave of absence to remain at New Orleans, La., and await assignment. November 20, 1903.

MAGUIRE, E. S., Pharmacist. Department letter granting Pharmacist Maguire leave of absence for thirty days from December 5, 1903, amended so that said leave shall be from December 1st.

MANNING, H. M., Assistant Surgeon. Relieved from duty at Stapleton, N. Y., and directed to proceed to Honolulu, T. H., and report to Chief Quarantine Officer for duty, November 23, 1903.

ROBINSON, D. J., Assistant Surgeon. To report to chairman of examining board, Port Townsend, Washington, to determine his fitness for promotion to the grade of passed assistant surgeon. November 24, 1903.

SAWTELLE, H. W., Surgeon. Granted leave of absence for two days from November 27th.

STONER, G. W., Surgeon. Granted leave of absence for five days from November 24, 1903, under paragraph 189 of the regulations.

WICKES, H. W., Passed Assistant Surgeon. Granted leave of absence for five days from November 28th.

Boards Convened.

Board convened to meet at Washington, D. C., December 7, 1903, for examination of Assistant Surgeons W. C. BILLINGS, J. W. KERR, and G. M. CORPUT, to determine their fitness for promotion to the grade of passed assistant surgeon. Detail for the board—Assistant Surgeon-General L. L. WILLIAMS, chairman. Assistant Surgeon-General W. J. PETTUS. Assistant Surgeon-General G. T. VAUGHAN, recorder.

Board convened to meet at Port Townsend, Washington, December 14, 1903, for examination of Assistant Surgeon D. E. ROBINSON, to determine his fitness for promotion to the grade of passed assistant surgeon. Detail for the board—Passed Assistant Surgeon J. H. OAKLEY, chairman. Passed Assistant Surgeon H. S. CUMMING. Passed Assistant Surgeon M. H. FOSTER, recorder.

Births, Marriages, and Deaths.

Married.

BARRETT — HOLLANDER. — In Baltimore, Maryland, on Wednesday, November 18th, Dr. Arthur Gilbert Barrett and Miss Alice Hollander.

DOWNEY—FARRAH.—In Atlanta, Georgia, on Tuesday, November 17th, Dr. James H. Downey and Miss Lillie Ollivette Farrah.

MILLER—BLOOD.—In New York, N. Y., on Monday, November 23d, Dr. Elmer Elvertin Miller and Mrs. Catherine Newschofer Blood.

NEAL — JONES. — In Philadelphia, Pennsylvania, on Wednesday, November 18th, Dr. S. Herbert Neal and Miss Bertha Williams Jones.

REEVE—MILLER.—In Richmond, Virginia, on Tuesday, November 17th, Dr. Jesse Newman Reeve and Miss Ashley Macon Miller.

RORKE—LYON.—In New York, N. Y., on Wednesday, November 18th, Dr. James Francis Rorke and Miss Minnie Lyon.

STEVENSON—BURT.—In San Francisco, California, on Saturday, November 14th, Dr. George Stevenson and Miss Frances M. Burt.

TILESTON—WILLIAMS.—In Chicago, Illinois, on Wednesday, November 18th, Dr. Wilder Tileston and Miss Clare Williams.

Died.

COOK.—In St. Paul, Minnesota, on Monday, November 16th, Dr. Thomas S. Cook, in the forty-third year of his age.

DRAVO.—In Pittsburgh, Pennsylvania, on Wednesday, November 18th, Dr. Louis H. Dravo, in the forty-fifth year of his age.

DUNHAM.—In Jacksonville, Florida, on Wednesday, November 18th, Dr. Charles A. Dunham, in the fiftieth year of his age.

MERVY.—In San Diego, California, on Tuesday, November 17th, Dr. Alphonse J. Mervy, in the fifty-seventh year of his age.

MURRAY.—In Laredo, Texas, on Sunday, November 22d, Dr. R. D. Murray, in the sixty-fifth year of his age.

PORTER.—In Canandaigua, N. Y., on Tuesday, November 24th, Dr. Charles H. Porter, in the seventieth year of his age.

SARPY.—In New Orleans, Louisiana, on Monday, November 16th, Dr. Emile Sarpy, in the seventy-fourth year of his age.

SECOR.—In Lansing, Michigan, on Sunday, November 15th, Dr. Thomas J. Secor, in the sixty-fifth year of his age.

STARKEY.—In Kingston, N. Y., on Saturday, November 21st, Dr. Herbert A. Starkey, in the thirty-sixth year of his age.

STEWART.—In Philadelphia, Pennsylvania, on Wednesday, November 25th, Dr. William Shaw Stewart, in the sixty-sixth year of his age.

New York Medical Journal AND Philadelphia Medical Journal.

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WHOLE NO. 1306.

Original Communications

THE ADMINISTRATION OF ANTITOXINE IN DIPHTHERIA BY THE DEPART- MENT OF HEALTH DURING 1902.

By J. S. BILLINGS, Jr., M. D.,
NEW YORK.

The administration of antitoxine in diphtheria was begun in New York by the department of health January 1, 1895. Previous to that date the death rate from diphtheria had ranged between 16.7 and 11 per 10,000, and the case mortality of the disease from 64 per cent. to 44 per cent. With the introduction of antitoxine a marked improvement at once took place in both the death rate and the mortality from diphtheria, and this improvement was progressive until 1898. These statements are best proved by the diagram given later, showing the death rate of, and the mortality from, diphtheria from 1888 to 1903. Up to 1899 a special corps of inspectors was maintained, whose duty it was to administer antitoxine free of charge in cases of diphtheria, and to immunize all children and adults who had been exposed to infection. Early in 1899 this corps of inspectors was abolished, and the administration of antitoxine made a part of the work of the diagnosticians of the department.

In 1902, the death rate and mortality having risen quite markedly, it was determined to do everything possible toward (1) lessening the prevalence of diphtheria; (2) preventing its occurrence in persons exposed to it; and (3) promoting the recovery of patients suffering therefrom. To these ends a special corps of inspectors, four in number, was organized March 1, 1902, and assigned to the free administration of diphtheria antitoxine. This number was soon found to be insufficient, and four more inspectors were added to the corps. The city was divided into eight districts, as follows: East of Broadway (1) Battery to Broome Street; (2), to Sixth Street, west of Broadway; (3) Battery to Thirty-fourth Street,

east of Fifth Avenue; (4) Sixth Street to Forty-second Street; (5) Forty-second Street to Eightieth Street; (6) Eightieth Street to the Harlem River, west of Fifth Avenue; (7) Thirty-fourth Street to Ninetieth Street; and (8) Ninetieth Street to the Harlem River. The inspectors are on duty day and night; every call sent in to the department is at once telephoned to them, and attended to at once. All have received thorough training in intubation and extubation, and special attention is paid to cleanliness and asepsis in the injection of antitoxine. So far, not a single case of infection or injection abscess has been reported. Besides the administration of antitoxine to persons suffering from diphtheria, the inspectors have, as far as possible, immunized all persons coming under their observation, who have been exposed to the disease. Besides the establishment of the above mentioned corps of inspectors, other efforts have been made to extend the use of antitoxine as far as possible, as follows:

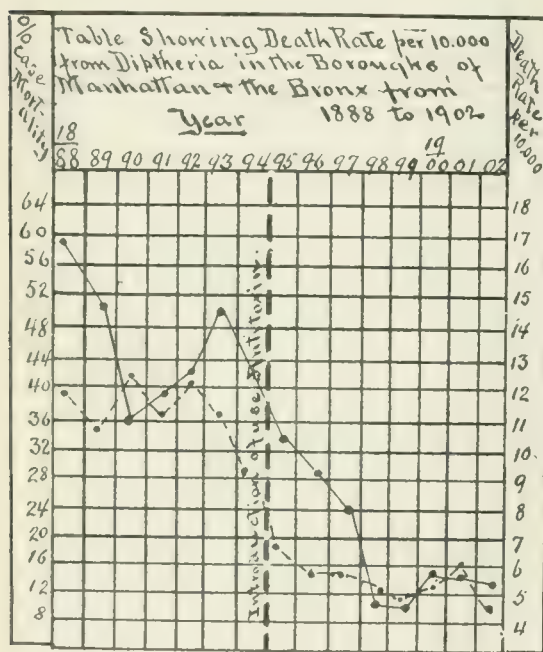
In every case of diphtheria reported to the department (and this includes practically all cases occurring in the Boroughs of Manhattan and the Bronx), the attending physician was asked (either by telephone or personal interview) if his patient had received antitoxine and the rest of the family had been immunized. If this had not been done, the department offered either to do it for him, or to furnish the antitoxine free of charge.

All cases of diphtheria reported by dispensaries were at once visited, and injection and immunization performed. In all fatal cases of diphtheria, inquiry was made of the attending physician as to whether antitoxine had been used, and at what stage of the disease (see later for statistics).

The diagnosticians, district inspectors, school inspectors, and other employees of the department were notified of the formation of the antitoxine corps, and instructed to report for inspection and injection, if necessary, all cases of diphtheria in tenement houses where isolation was not or could not be enforced, or where no physician was in attendance. Every district in-

spector was instructed to report whether the cases of diphtheria seen by him, private or institution cases, had received antitoxine.

And finally, circulars, leaflets, and other literature were distributed widely to the medical profession, urging the early use of antitoxine and the great advisability of widespread immunization against the disease, as preventive of its spread. The results of these various steps have been most satisfactory, as is shown in the table, the death rate in 1902 being 31 per cent., and the mortality 9.5 per cent. lower than in 1901. And it must be borne in mind that these steps were not taken until March 1st; January and February are two of the heaviest months of the year as regards the occurrence of diphtheria; were the figures for these months deducted from the statistics, the showing made would be even better.



Dotted -- Case Mortality -
Solid -- Death Rate

As shown in the diagram, between 1888 and 1894 the case mortality of diphtheria ranged from 64 to 44 per cent. (average, 37 per cent.), the death rate per 10,000 from 16.7 to 11.0 (average 13.9). During the four years, from 1895 to 1898, the mortality dropped to 12 per cent., and the death rate to 4.6. Since 1898, both the mortality and death rate have risen. In 1901, the mortality was 15.9 (an increase of 20 per cent.) and the death rate 5.8 (an increase of 25 per cent.). In 1902, the mortality was 10.9 per cent., a decrease of 31 per cent., and the death rate 5.34 per 10,000, a reduction of 9.5 per cent.

TABULATION OF CASES OF DIPHTHERIA IN WHICH ANTITOXINE WAS ADMINISTERED BY INSPECTORS OF THE DEPARTMENT OF HEALTH, FROM MARCH 1, 1902, TO JANUARY 1, 1903.

TABLE I.

Number of Cases Injected, 1,512.

False cases.....	283
Cases sent to Willard Parker Hospital.....	117
Total	400
Cases considered as diphtheria:	
Klebs-Loeffler bacilli present.....	1,018
Klebs-Loeffler bacilli doubtful (too late, only suspicious, etc.).....	76
No culture.....	18
Total number of cases injected.....	1,112

TABLE II.

Total Number of Cases Considered as Diphtheria, Showing Deaths and Mortality Per Cent.

	Cases.	Deaths.	Mortality Per cent.
Moribund deducted..	1112	84	7.6
	1082	54	4.9

TABLE III.

	Laryngeal Cases.			Non-operative Cases.			Operative Cases. (Intubation.)		
	Cases.	Deaths.	Mort. Per cent.	Cases.	Deaths.	Mort. Per cent.	Cases.	Deaths.	Mort. Per cent.
Moribund deducted.....	177	33	18.6	137	22	16	40	11	27.5
	157	13	8.3	124	9	7.2	33	4	12

TABLE IV.

Showing Location of Lesion.

Tonsils	481	43.7 per cent.
Pharynx	256	22.6 per cent.
Larynx	177	15.9 per cent.
Nares	186	16.8 per cent.
Not stated.....	12	1. per cent.
	1,112	100

TABLE V.

Showing Character of Cases.

Mild	254	22.4 per cent.
Moderate	464	41.7 per cent.
Severe	276	25.6 per cent.
Septic	102	9.8 per cent.
Not stated.....	6	.5 per cent.

TABLE VI.
Showing Cause of Death.

Pneumonia	14
Nephritis	3
Cardiac paralysis.....	18
Asphyxia	17
Exhaustion	4
Sepsis	24
Pulmonary œdema.....	2
Endocarditis	1
Meningitis	1
	84

TABLE VII.
Cases Arranged According to Day of Disease on Which Antitoxine was Injected, Giving Mortality Per Cent.

First day..	Total cases 120	Deaths 2	Moribund 6	
	Moribund deducted 120	"	2	Mortality 1.6 per cent.
Second day	Total cases 340	"	15	Moribund 5
	Moribund deducted 335	"	10	Mortality 3 per cent.
Third day..	Total cases 320	"	22	Moribund 6
	Moribund deducted 314	"	16	Mortality 5 per cent.
Fourth day	Total cases 136	"	10	Moribund 9
	Moribund deducted 125	"	10	Mortality 8 per cent.
Fifth day..	Total cases 65	"	10	Moribund 4
	Moribund deducted 61	"	6	Mortality 9.9
Over Fifth day.....	Total cases 71	"	11	Moribund 5
	Moribund deducted 66	"	6	Mortality 9 per cent
Unknown..	Total cases 10	"	1	
	Moribund deducted 10	"	1	

TABLE VIII.
Number of Injections.

1 injection.....	930
2 injections.....	159
3 injections.....	16
Over 3 injections.....	4
Not stated.....	3

TABLE IX.
Rashes.

First to fifth day, inclusive.....	Erythema	14
First to fifth day, inclusive.....	Urticaria.....	16
Sixth to tenth day or over.....	Erythema	6
Sixth to tenth day or over.....	Urticaria.....	56
Total rashes.....		92
Number of families immunized.....		1,170
Number of individuals immunized.....		4,254
Number of institutions immunized.....		5
Number of individuals in institutions.....		1,225
Number of individuals contracting diphtheria before two or after thirty days.....		7
Number of individuals contracting diphtheria between two and thirty days.....		17
Number of individuals contracting diphtheria where immunization was refused or impossible to give.....		4
Rash reported in.....		86 cases.

REMARKS ON INSPECTORS' CASES.

The above figures only go to confirm an already established fact—the specific curative action of diphtheria antitoxine in cases of diphtheria. These are not selected cases; they occur among the poorest classes, who are unable to pay for the antitoxine used. In many cases the patients are apparently moribund: every week the inspectors report cases literally dragged back from the grave by the use of antitoxine. And yet, even without deducting the moribund cases, the case mortality is less than 8 per cent., as contrasted with the awful figures of twenty years ago, from 36 to 40 per cent.

Cardiac paralysis, asphyxia, bronchopneumonia, and sepsis were the most frequent causes of death in the fatal cases. Of the cases injected during the first forty-eight hours of the disease only 3 per cent. proved fatal, showing that the imperative duty of the physician in diphtheria is to use antitoxine and use it early. Many a case, mild at first, gradually increases in severity, and when the physician, as a last resort, uses antitoxine late in the disease, it fails to effect a cure.

An interesting fact in connection with the harmless urticaria and erythematous rashes associated with the injection of antitoxic serum, is that urticaria occurs more frequently a week or longer after the injection, while erythema appears within the first week.

PHYSICIANS' CASES.

With the introduction of free administration of antitoxine, in 1895, the department of health also began to furnish antitoxine free of charge to physicians for their poor patients. Physicians are required to certify that the patient is unable to pay for the antitoxine, and to forward to the department a history of the case on its termination, special history blanks being furnished for that purpose. This was begun on October 1, 1895. The following tables show the number of cases injected from that date to January 1, 1903, in the Boroughs of Manhattan and the Bronx. The number of cases has varied but little during the last two or three years, so that the separate figures for each year are not given. These cases represent only a fraction of all those receiving antitoxine. The higher mortality among the physicians' cases over the inspectors' cases is chiefly due to the fact that the average dose of antitoxine given by physicians is but rarely more than 2,000 units, while the inspectors give 3,000 units and up in all cases over two years of age.

TABULATION OF CASES OF DIPHTHERIA IN WHICH
ANTITOXINE WAS ADMINISTERED BY PHYSI-
CIANS FROM OCTOBER 1, 1895, TO
JANUARY 1, 1903.

Total number of cases considered as diphtheria,
8,318.

Total number of cases showing Klebs-Loeffler
bacilli, 6,563, or 78 per cent.

Total number of cases showing doubtful and
no culture, 2,755, or 22 per cent.

TABLE I.

Total Number of Cases Considered as Diphtheria,
Showing Deaths and Mortality Per Cent.

	Cases.	Deaths.	Mortality Per cent.
	8318	1046	12.6
Moribund deducted....	425	425	
Remain	7895	621	6.3

TABLE II.

Cases of Laryngeal Diphtheria, Operative and Non-
operative, Showing Mortality Per Cent.

	Laryngeal Cases.			Non-opera- tive Cases.			Operative Cases.		
	Cases.	Deaths.	Mort. Per cent.	Cases.	Deaths.	Mort. Per cent.	Cases.	Deaths.	Mort. Per cent.
Moribund de- ducted	2504	129	25	11843	389	21	661	240	36
Remain.....	310	319		211	211		108	108	
	2185	310	14	21632	178	10.9	553	132	23

The following tables relate to cases from Jan-
uary 1, 1899, to January 1, 1903:

TABLE III.

Showing Number of Cases Receiving One, Two,
Three or More Injections of Antitoxine.

1 injection.....	4816	77 per cent.
2 injections.....	1,030	16 per cent.
3 or more.....	215	3 per cent.
Not stated.....	145	4 per cent.

Total6,206

TABLE IV.

Showing Location of Lesion.

Tonsils	2,313	37 per cent.
Pharynx	1,416	22 per cent.
Nares	509	8 per cent.
Larynx	1,753	28 per cent.
Not stated.....	215	5 per cent.

Total6,206

TABLE V.

Showing Severity of Cases.

Mild	954	15 per cent.
Moderate	2,137	34 per cent.
Severe	2,343	37 per cent.
Septic	462	7 per cent.
Not stated.....	310	7 per cent.

Total6,206

TABLE VI.

Cases Arranged According to Day of Disease on
Which Antitoxine was Injected, Giving
Mortality Per Cent.

Day of Disease.	Cases.	Deaths.	Mort. Per ct.	Moribund deducted.	There remain.		Mort. Per ct.
					C.	D.	
First day.	995	62	6.2	35	960	27	2.9
Second day..	2526	179	7.0	74	2452	105	2.6
Third day....	1335	150	11.2	50	1285	100	7.8
Fourth day...	485	107	22.	40	445	67	15.
Fifth and over	425	121	26.	62	363	59	16.
Unknown.....	440	54	12.2	21	419	33	7.8
Total.....	6206	673	10.8	282	5924	391	6.6

TABLE VII.

Showing Complications.
1902 Only.

Scarlet fever.....	14
Measles	7
Nephritis	38
Pneumonia	14
Bronchitis	27
Paralysis	12
Whooping cough.....	4
Abscess of necks.....	1
Rash	50

TABLE VIII.

1902 Only.
Causes of Death as Stated.

Pneumonia	23
Nephritis	19
Cardiac paralysis.....	46
Sepsis	32
Asphyxia	23
Scarlet fever.....	7
Pulmonary edema.....	1
Measles	1
Exhaustion	1
Convulsions	1
Not stated.....	35

IMMUNIZATION.

Cases immunized by physicians: January 1,
1899, to January 1, 1903, 2,864.

Cases developing between twenty-four hours
and thirty days, 22, or 0.7 per cent.

Cases developing before twenty-four hours and
after thirty days, 21, or 0.7 per cent.

Families immunized, 1,329.

FATAL CASES.

As before mentioned, a special investigation
was made of all fatal cases of diphtheria occur-

ring in the Boroughs of Manhattan and the Bronx from May 20, 1902, to January 1, 1903. Following are the results obtained:

Total cases investigated, 277.

In 198 cases, or 71 per cent., antitoxine was used.

In 79 cases, or 29 per cent., antitoxine was not used.

I.

The Location of the Membrane was Given as Follows:

Tonsils	13 or 4.7 per cent. of all cases.
Pharynx	36 or 13 per cent. of all cases.
Larynx { Operative cases, 28 } 121 or 43.6 per cent. of all cases.	
{ Non-operative, 93 } cases.	
Nares	49 or 17.7 per cent. of all cases.
Not stated	58 or 21 per cent. of all cases.
	277 or 100 per cent.

II.

Character of Disease.

Mild	1 or .03 per cent. of all cases.
Moderate	7 or 2.5 per cent. of all cases.
Severe	86 or 31 per cent. of all cases.
Septic	138 or 49.9 per cent. of all cases.
Not stated	45 or 16.57 per cent. of all cases.
	277

III.

Cause of Death.

Pneumonia	20 or 7.4 per cent. of all cases.
Nephritis	14 or 5.2 per cent. of all cases.
Sepsis	83 or 30 per cent. of all cases.
Cardiac paralysis	41 or 15 per cent. of all cases.
Asphyxia	59 or 21.6 per cent. of all cases.
Exhaustion	15 or 5.7 per cent. of all cases.
Scarlet fever	9 or 3.4 per cent. of all cases.
Measles	1 or .03 per cent. of all cases.
Myocarditis	2 or .07 per cent. of all cases.
Endocarditis	1 or .03 per cent. of all cases.
Not stated	32 or 11.7 per cent. of all cases.
	277

TABLE IV.

Day of Death After First Injection.

	Per Cent. of Injected Cases.
Moribund, i. e., within 24 hours	62 or 31
First day, 24-48 hours	22 or 11
Second day, 48-72 hours	24 or 12
Third day, 72-96 hours	8 or 4
Fourth day, 96-120 hours	5 or 2.5
Fifth day, 120-144 hours	11 or 5.5
Over five days	28 or 14
Not stated	38 or 20
	198 or 100

TABLE V.

Number of Days Ill When First Injection was Given.

First day	5 or 2.5 per cent.
Second day	25 or 12 per cent.
Third day	22 or 18.5 per cent.
Fourth day	28 or 13 per cent.
Fifth day	22 or 11 per cent.
Over five days	22 or 11 per cent.
Not stated	64 or 32 per cent.
	198 or 100

TABLE VI.

Number of Injections Given.

1 injection	101 or 51 per cent.
2 injections	49 or 24 per cent.
3 injections	6 or 2.7 per cent.
Over 3 injections	4 or 2.3 per cent.
Not stated	38 or 20 per cent.

198 or 100

TABLE VII.

Units Given.

1 2,000	23 or 11 per cent.
2 3,000	40 or 21 per cent.
3 4,000	47 or 23 per cent.
Over 4,000	54 or 25 per cent.
Not stated	34 or 20 per cent.

198 or 100

ANALYSIS OF CASES INJECTED ON FIRST OR SECOND DAY.

These cases were 30 in number, of which 17 were laryngeal.

Of the laryngeal, 8 cases were operated on (intubation), 9 cases were not. Of the 8 cases operated on, 5 were septic (3 severe); 4 operated on within twenty-four hours; 1 within twenty-eight hours; 1 within thirty-two hours. Two had pneumonia, and 2 whooping cough. Of the 9 cases not operated on, 5 were septic (4 severe); 4 were operated on within twenty-four hours; 3 within forty-eight hours; 1 within four days (pneumonia); 1, no information; 5 had asphyxia.

Of the remaining 13 cases,

- The tonsils, pharynx, and nose were affected in..... 3
(One was septic, death occurring on the eighth day; one was moderately severe, but complicated with gastroenteritis; in one there was severe suppression of urine).
- The pharynx only was affected in..... 4
(One was in a nine months' old infant, which had only one injection of 1,500 units; two were septic, death occurring from sepsis on the fifth day; scarlet fever complicated the fourth).
- The tonsils only in..... 1
(Four months old. Moderate. Colitis).
- The pharynx and nares in..... 1
(Septic—meningitis—five days).
- The nares and tonsils in..... 1
(Septic—bronchopneumonia).
- The location and character not stated in..... 1
(Died in three days from exhaustion).
- Recovery ensued and patients died after two or three weeks from nephritis and bronchopneumonia, respectively..... 2

13

Of the 79 fatal cases where antitoxine was not administered, in 42 the physicians stated that they did not use it because the patients were either moribund or were seen so late in the disease that they thought antitoxine would do no good.

In 8 cases the physicians stated that they did not believe in antitoxine.

In 4 cases the parents refused injection.

In 25 cases no reason was given for not using it.

The results obtained in cases injected by inspectors from January 1, 1903, to October 1, 1903, are even better than those for 1902. Of 1,208 cases considered as diphtheria, only 72 died, a case mortality of 5.9 per cent. Deducting the moribund cases (26) the mortality is only 3.8 per cent.—the lowest on record.

In order to ensure better service and more rapid attention to calls, two more inspectors have been added to the regular force, making ten in all. Further, a special inspector, skilled in intubation, has been assigned to the general supervision of all such cases.

CONCLUSION.

There is no longer any doubt as to the curative action of antitoxine in diphtheria. Of 15,792 cases injected with antitoxine furnished free of charge by the department of health or by its inspectors, 1,860 died, a case fatality of 11.8 per cent. If the cases moribund when injected (722 in number) are deducted the case mortality is further reduced to 7.5 per cent.

The one fact, important if not new, brought out in this report is the great advisability—the almost imperative necessity—of the earliest possible administration of antitoxine. Of 1,702 cases injected on the first day of the disease, only 85 patients died (including moribund cases), a case mortality of 4.9 per cent. Comment is unnecessary.

THE ROENTGEN RAYS IN THERAPEUTICS.*

By MIHRAN K. KASSABIAN, M. D.,

PHILADELPHIA,

DIRECTOR OF THE RÖNTGEN RAY LABORATORY OF THE
PHILADELPHIA HOSPITAL (BLOCKLEY).

During the past ten years numerous inventions and discoveries have been made in the field of physical science, attracting, and deservedly so, a great deal of attention from many members of the medical fraternity.

In the therapeutics of the profession many discoveries and inventions in the allied sciences have been proved to be invaluable adjuncts in the treatment of disease. Time will not permit me even to mention these discoveries and inventions. There is, however, one discovery that has attracted, perhaps, more attention than any other made within the last three centuries, and it is with

its uses that I shall deal. This discovery was made in the last semi-decade—accidentally, as we all are aware—by Röntgen, who is now famous the world over for his wonderful researches in the “scientific field of mysteries.” The discovery of the unknown rays soon attracted the members of the medical profession, who at once realized that an important aid in the art of diagnosing certain conditions had been given to them. The members of the medical profession immediately adopted it as the most useful measure in the diagnosis of conditions which previously were guessed at or remained undiagnosed. Soon after the rays had attained a permanent place in the field of diagnosis, it was observed that accidental dermatitis was invariably set up. This suggested to the minds of the observing and careful investigators the possibility of the use of the rays, not only as a diagnostic agent, but also in the treatment of various pathological conditions. Experiments were then conducted with the hope that these pathological conditions, especially carcinomata, lupous affections, and certain dermatological lesions, could be cured by the careful and repeated applications of the rays on the parts thus diseased. The results of experiments at first were very slowly evident, but of late the utmost activity has prevailed in many schools, at home and abroad, and in consequence a considerable amount of hope has been raised as to the therapeutic value of the rays in various affections, and most of all in malignant disease. That the results in the main are very satisfactory has been proved by reports and statistics originating from the medical practitioners both in this country and abroad, thus proving that the rays are useful in the treatment of the conditions above mentioned. I fear, though, that the time allowed for the correct reporting of cases that are supposed to have given good and satisfactory results under the application of the x rays, has not been sufficiently long or extended. In my own experience recurrence of malignant disease has been more frequent than the permanent cure of the said conditions. I do not wish to be misunderstood, for it is my earnest belief (this conclusion being drawn from the results I have achieved and also from the results obtained from certain x ray therapists stationed in Philadelphia), that really more “cures” are reported than truly can be called such, inasmuch as the time for possible recurrences has not been sufficiently extended. This, however, is not true of lupus and many other dermatological lesions, my experience so far as permanent cure is concerned, being on the whole (in 97 per cent. of cases) very satisfactory in regard to them. I am, however, of the opinion that in the x rays we have

* Read at the meeting of the Medical Society of the State of Pennsylvania, held at York, Pa., September 22, 23, and 24, 1903.

an agent which will, in a short time, prove to be of undoubted benefit in the permanent cure of malignant disease. Other measures, in addition to and in conjunction with the application of the x rays, and on which I am now working and experimenting, will when instituted, give greater promise of effecting a cure than simply the ordinary application of the rays as thus far practised. The manner in which the x rays act upon the diseased tissue has not as yet been sufficiently clearly determined. It was in the very beginning believed, when the therapeutic value of the rays was at first observed, that the action was of a bactericidal nature. This reasoning was, however, soon abandoned. In the first place, it seems to be now the consensus of opinion that, instead of destroying the microorganisms, the x ray stimulates them to further growth and reproduction; secondly, it has been almost daily shown that good results are obtained by the application of the rays to such pathological lesions as are supposedly free from bacteria. This latter statement may be wrongly offered, inasmuch as it has thus far not been proved that such diseased fields are absolutely free from their respective microorganisms; yet pathologists and bacteriologists have not been able to observe the microorganisms, although this may still be done. The effect of the rays has by some been attributed to a corrosive action of delicate platinum particles thrown out from the anodal surface. Tesla believes it to be due to the generation of ozone in the diseased tissue. Schiff alleges the curative power to be due, not to the x rays, but instead to electrical waves given off from the tube. The rays have a marked influence in retarding osmosis. Loudon thinks it possible that it is in this property of the x rays that the secret of their biological and therapeutic action lies. By retarding the osmotic processes throughout the system, they cause changes in metabolism which must influence the nutrition of the tissues.

The clinical side in the treatment of malignant disease should next be looked into. From the experience that I have had in this direction, I have found it advisable to classify my results into three headings, as follows:

First. A class of cases of malignant disease treated by the application of the rays, with total failure resulting, in so far as cure is concerned. I am unable to state the cause of the failures.

Secondly. A class of cases where there has been produced a decided improvement in all the symptoms. In the majority of the cases belonging to this class there has been an alleviation of pain soon after the first treatment with the rays. Among the other improvements noted are disappearance of induration and œdema. In a certain

number of cases where adjoining or nearby glands were enlarged from metastatic involvement, I noticed a decrease in their size (in some cases almost to normal) usually taking place after the second or third treatment. Ulcerating malignant surfaces were in many instances observed to take on a healthy appearance, and in certain instances complete healing was induced after from three to five exposures. To this class belong the majority of cases coming to the x ray therapists for treatment. As we might assume from the above heading, these improvements were seldom, if ever, permanent; and after treatments had been discontinued, the malignant lesions returned to their former severe (and even in some cases to worse) conditions.

Thirdly. Under this class of cases are placed those in whom permanent cure has undoubtedly taken place. To this class, unfortunately for both the patients and x ray therapists, belong the smaller number of cases. When I here speak of permanent cure, it must be stated, so as to avoid misunderstanding, that the cases coming under this category are sarcomata, external carcinomata, and epitheliomata. Jacob's, or rodent, ulcer is the form of epithelioma which has perhaps given the least trouble, and required the least number of x ray applications to effect a permanent cure. Of these I have successfully cured sixteen cases without a single recurrence thus far. As before stated, not sufficient time has as yet elapsed confidently to state that no recurrence will take place, though some eight or nine cases have stood the test for four years without any signs of return. Among other cures are cases of malignant tumors of the skin (proved by microscopical examinations), of the mammary glands, and of those located in easily accessible cavities. I must also add that I have had less result in curing sarcomata than carcinomata, though of the former type of malignant disease I have three cases which from all appearances seem to be absolutely cured. Why sarcomatous tissue is more difficult to cure by x ray applications than carcinomatous is a matter which I have been investigating for some time, though I have not been able thus far to offer a satisfactory explanation. Cancer of the mammary gland, in a small proportion of cases, when treated by the x ray has given very good results.

It is not amiss to state here my opinion on the point whether an accessible malignant field should be removed by operation, if not too far advanced, or be treated by x ray. In my opinion, so long as a case is operable, I would urgently recommend this procedure; and when recurrence is noted the x rays should be repeatedly applied in the hope of effecting a cure; the rays should likewise be ap-

plied to those malignant states which are considered to be inoperable.

Lupus vulgaris is, in 95 per cent. of cases, amenable to x ray treatment, according to my experience. It has lately been recommended by certain authorities to start the curative process with the ray applications in those cases where the ulceration and induration are extensive, and then to follow with Finsen light treatment. I cannot see the advantage of this form of treatment. In my experience the best results are obtained by careful x ray treatments.

From the results obtained in the treatment of the above conditions by the x rays I have been led to investigate what the results may be from the treatment of certain brain, thoracic, and abdominal diseases. The experiments have been conducted far too short a time to see just what can be accomplished by this method of treatment. From the records obtained daily, I shall be able to report the results fully at a future date.

1831 CHESTNUT STREET.

REPORT OF A CASE OF RUPTURE OF THE UTERUS IN WHICH HYSTERECTOMY WAS FOLLOWED BY RECOVERY.*

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CASE.—The patient, a negress, thirty-eight years of age, had always enjoyed good health. Previously to the last pregnancy, which resulted in rupture of the uterus, she had conceived eight times, miscarrying twice. Two years and seven months ago she gave birth to twins. She had never experienced any unusual difficulty during pregnancy or labor and usually called the doctor only when the baby was about to be born. Six of the children are alive and well. Excepting the physiological suppression of the monthly sickness, the menses have always been regular and painless. The last pregnancy progressed uneventfully up until the time of labor, which was inaugurated in the early morning of July 18, 1903. The pains became more frequent and more intense until the patient had been in labor seventeen hours, when they suddenly ceased with a "terrible" hæmorrhage from the vagina. Three hours later Dr. J. Clinton Foltz, of Chestnut Hill, was called to see the patient, the pains having been absent in the meantime. He found the woman greatly shocked and the bedding saturated with blood. The foetal heart sounds could not be heard. On making a bimanual examination Dr. Foltz found the head presenting with the occiput toward the

left iliopectineal eminence; he further found that the presenting part receded on pressure, as if it were but loosely contained in a large bag. After attempting forceps extraction, podalic version was performed, and the woman delivered of a dead child. In removing the placenta, which came away soon after the child, Dr. Foltz found a large portion of the omentum in the vagina. He immediately packed the vagina with sterile gauze and sent the patient to the Germantown Hospital, a distance of seven miles.

I saw the patient, with Dr. Foltz, about seven hours after the rupture had occurred. The mucous membranes were almost white, the temperature 98° F., the respiration 30, and the pulse 135, empty and weak. A portion of the omentum protruded from the vulva and the abdomen was soft and only slightly tender. The patient was etherized and the abdomen opened in the median line. There was a small quantity of clotted and fluid blood in the peritoneal cavity and the omentum could be seen entering the rent in the uterus, which extended along the left lateral wall from near the fundus down to and into the vagina. The contaminated omentum was excised, the entire uterus was extirpated, and the vaginal opening was sutured with catgut. After suturing the peritonæum over the arterial stumps and over the vaginal suture line, and after flushing the peritoneal cavity with hot salt solution, the abdomen was closed without drainage. Time of operation, twenty minutes. The pulse having risen to 150 during the operation, Dr. Foltz injected two quarts of salt solution containing atropine, strychnine, and adrenalin, into the median cephalic vein of the left arm. The patient reacted from the shock of operation and progressed to complete recovery without an untoward symptom. The extirpated uterus contained a few scattered fibroid tumors and was so friable that a finger could be pushed with ease through its walls.

The incidence of rupture of the uterus varies according to different authors as follows: Collins, 1-482; Winckel, 1-666; McClintock, 1-737; Bandl, 1-1200; Von Franque, 1-3220; Jolly, 1,3403; Ramsbotham, 1-4429. Several cases of silent rupture have been reported; i. e., cases in which there were no symptoms of rupture, the condition being revealed on autopsy after death from sepsis.

The uterus may be torn by external violence, as by blows, falls, or kicks; it may rupture from internal traumatism, as from the application of forceps, attempts at version, or the introduction of a hand into the uterus; it may be sundered by vehement muscular efforts to overcome some disparity between the "passage and the passenger" as by malpresentation, hydrocephalus, spina bifida, sacrococcygeal tumors, rigid os, contracted pelvis, tumors of the pelvis, and cicatrices, in which cases it is usually transverse through the lower segment; or it may lacerate because of some disease or abnormality of the organ itself, as interstitial pregnancy, bicornate uterus, degeneration

* Read before the Philadelphia Obstetrical Society, October 1, 1903.

of the muscle, tumors, such as myomata and carcinomata, and scars after Cæsarean section. In the reported case the rupture was probably due to degeneration of the uterine walls. Jolly says the mortality is 83 per cent.; Spiegelberg, 95 per cent.

After delivery, rupture of the uterus may be treated by the expectant method, it may be treated by antiseptic injections and drainage of the uterus with tube or gauze, it may be treated by vaginal hysterectomy and drainage of the peritoneal cavity, and it may be treated by abdominal section, either by suturing the rent or by hysterectomy. Trask states that the mortality is 78 per cent. after expectant treatment, 68 per cent. after vaginal delivery, and 24 per cent. after laparotomy.

By the expectant plan one risks death from hæmorrhage, sepsis, and strangulation of the intestine in the contracting laceration. But if a skilled abdominal surgeon is not available, this course, together with the internal administration of ergot and adrenalin and the application of cold and compression to the abdomen, would appear to be the safest, providing none of the viscera present in the vagina. If the omentum or intestine prolapses into the vagina, operation is imperative, as pushing either of these structures back into the peritoneal cavity would add enormously to the risk of peritonitis. In our case Dr. Foltz undoubtedly contributed to the successful issue by not replacing the omentum in the abdominal cavity, as this structure was not only surgically unclean, but also acted as a tampon holding the intestine in place and checking the bleeding from the tear in the uterus.

Antiseptic injections and drainage of the uterus by tube or gauze are more dangerous than doing nothing.

Vaginal hysterectomy by those skilled in vaginal work is undoubtedly a useful procedure, but it is less safe than abdominal section, because one works in the dark and because the peritoneal cavity cannot be cleansed so effectually.

Abdominal section reveals the exact nature and extent of injury, facilitates quick and careful work, and permits thorough cleansing of the peritoneal cavity. A small opening may be closed by suture. A large tear is best treated by hysterectomy, which may be done almost as quickly as suture, and which effectually controls hæmorrhage, removes a large sac which is apt to become septic, and prevents future pregnancies in a womb weakened by a long scar.

The Sisters of Charity, of Clifton, O., will soon open a new hospital in that suburb of Cincinnati, the furnishing having been practically completed.

SOME OF THE MORE INFREQUENT CAUSES OF OBSTRUCTION OF THE COMMON BILE DUCT.*

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Among the first reflections that present themselves in connection with a case with symptoms referable to the liver, are some one of the inflammatory affections of either the liver, gall bladder, or ducts, with the gastrointestinal tract as the focus of infection, or tumors either within or without the liver, gall bladder, ducts, or adjacent organs. Without going into detail enumerating these numerous and well known pathological conditions, we are often not sufficiently mindful of the possibilities of obstruction of the flow of bile through the common duct being due to conditions arising without, and, so far as can be determined by exploration at the time of operation, in no way associated with or resulting from infection of, the gastrointestinal tract. It is these infrequent causes I desire to discuss.

When such obstruction does occur, diagnosis before incision is made is usually not possible, and even after, the most painstaking search is required. Because of this fact, it is important that we be mindful of such possibility, and, in order to appreciate better this danger of obstruction from without the duct, it is well to keep in mind the exact anatomical relations that the common duct bears to the tissues through which it passes, descending, as it does, in a direction backward and downward for a distance of about three inches, between layers of the gastro-hepatic omentum richly supplied with a perfect network of lymphatics, to enter ultimately the inner and posterior surface of the second part of the duodenum, in intimate relation with the head of the pancreas, directly alongside of which for some distance is the pancreatic duct (duct of Wirsung); these two ducts usually entering in common, and extending along the submucous layer of the bowel, at a distance of three fourths of an inch, and less than three inches from the pyloric orifice, the relation of these ducts before entering their common orifice in the second portion of the duodenum, is a fact to be borne in mind in searching for obscure causes, as it is at this point that simple glandular enlargement may be sufficient to interfere with drainage through the common duct.

A second anatomical fact that is of much importance is the arrangement of the lymphatic glands in this region. They are larger and more numerous about the duodenum and head of the pancreas than anywhere in the abdominal cavity, excepting about the ileocæcal region, where, as is well known, they

* Read at the meeting of the Medical Society of the State of Pennsylvania, at York, Pa., September 22, 23 and 24, 1903.

play so prominent a part in infective fever. These glands must not be confounded with four or five rather large glands, normally so found in the free border of the lesser omentum, either by the side of, or in front of, the common duct, in a position where the lumen is the greatest and much less likely to cause obstruction by pressure than the network of lymphatics that surround and are immediately associated with the duct itself.

The cause of non-malignant lymphatic infection is by no means always readily traced, though I believe it to be more common than is usually regarded, as arising from sources other than the gastrointestinal tract.

While it is an admitted fact that by far the largest percentage of pathological conditions arising within the gall bladder and ducts, is due to infection through the gastrointestinal tract, there is still a number of cases, met with from time to time that cannot be grouped among those having such source of infection. As an instance, the following case seems to belong to this atypical group:

CASE I.—A woman, thirty-two years of age, whose history until November, 1902, had been free from all suspicion of disease, was attacked with pneumonia in the right side, complicated with empyema. The latter was operated upon by incision and drainage, four weeks after the pneumonia developed. Five weeks after it developed, the symptoms of obstruction of the bile duct first manifested themselves to her attending physician. On examination over the hepatic region, there was disclosed a very much enlarged right lobe, with a distended gall bladder that protruded from beneath the free border of the liver, well down toward the crest of the ilium, and as far forward as the median line. There was no pain; nausea and some vomiting, however, developed at this time. Jaundice was most pronounced in a few days after its first appearance; stools became entirely clay-colored, with the characteristic urine staining. The pleural empyema entirely cleared up in two weeks after drainage was established. While the hepatic symptoms continued to increase in severity, or at least so far as the deepening of the jaundice and intense nausea with frequent attacks of vomiting were concerned, there was at no time more than a distress complained of in the right hypochondriac region. After disappearance of the pleuritic pain, which was more diaphragmatic than pleural, there was no pain complained of. The patient began to lose flesh very rapidly.

I saw her the beginning of the eighth week after pneumonia developed, three weeks after the hepatic symptoms developed, and found an enormously hypertrophied right lobe projecting as before described, and a clearly defined hydropic gall bladder. There was absolutely no bile passing into the intestines. The patient was deeply jaundiced, and there had been since the appearance of the jaundice two rather extensive subcutaneous hæmorrhages from the right arm and both lower extremities. The picture presented was clearly that of ob-

struction of the common bile duct; the cause, however, was decidedly obscure, the woman's general health up to the present time having been good. She had been throughout her entire life exceptionally free from gastrointestinal disturbances. It seemed reasonable to exclude gall stone as a cause, because of the absence of pain in the present attack, also the absence of history of gall bladder colic or passage of gall stones. The rather sudden appearance of obstructive symptoms coming on during convalescence from pneumonia and empyema, the absence of any gastrointestinal symptoms, as stomach or duodenal ulcer or pneumococcal infection of the intestinal tract during her attack of pneumonia, and the improbability of malignancy left much to exclude, but little to include, as cause; the condition was, however, regarded as due to adhesions, either from unrecognized duodenal ulcer or from common bile duct ulceration due to stones that had given no previous trouble, or from possible infection which had occurred directly through the walls of the gall bladder from cholangitis, pyæmia, or some one of the many infective catarrhal conditions of the gall bladder and ducts that had existed without giving rise to symptoms.

Medical treatment had been entirely without benefit, surgical treatment was therefore advised. The gall bladder was found intensely distended, almost, indeed, to the point of rupture. After getting rid of this immense tumor by emptying it through incision, the cause of obstruction was found to be an immensely hypertrophied chain of lymphatics, completely enveloping the common bile duct and duct of Wirsung, at the point where they traverse together before entering the duodenum through the common orifice. The cystic and hepatic ducts were distended to a size readily admitting the index finger. The common duct at about one inch below the orifice of the cystic, was bent upon itself at a sharp angle, due to the tilting forward of this immensely distended gall bladder, which contained fully twenty-five ounces of a perfectly sterile, tenacious, glairy, mucus-like fluid. The lymphatic glands were but slightly, if at all, adherent to the duct, though there was some adhesion about the head of the pancreas. The glands of the entire chain over the pancreas and extending throughout the entire under surface of the liver and over the peritoneal surface of the diaphragm, were generally enlarged.

Operation was completed by removing the enlarged glands from over and about the ducts (ductus communis choledochus) and pancreas, which were now known to be the cause of obstruction by compression, and draining the gall bladder by introducing a hard rubber, perforated tube directly through the cystic duct into the junction of the cystic with the hepatic, in order to secure drainage directly from the liver, and thereby to put at rest the common duct, the mucous membrane of which was so œdematous as to completely occlude its lumen. Exploration with the finger, which in the cystic and hepatic ducts could be readily introduced, failed to detect any evidence of stricture or obstruction after angulation had been relieved in the common duct.

After drainage had been continued for three weeks, it was reestablished through the common duct, as shown by the bile stained fæces. Jaundice promptly disappeared, and the patient was entirely

well and able to resume her household duties by the end of the sixth week.

It was concluded that this involvement was due to lymphatic infection from the right pleura, brought about by a descending type of infection. If we would review in our minds the anatomical arrangement of the glands supplying the liver, diaphragm, and pancreas, and much of the lesser peritoneal cavity, we should at once readily see that this condition could occur; and it is doubtless more often a fact that the cavity of the pleura will be found by this means to communicate by way of its efferent lymphatic vessels, which run in all directions through the diaphragm, inosculating with those of the lesser peritoneal cavity. As an instance, a superficial set of hepatic lymphatics, which extend over the entire convex surface of the organ, some passing between the fibres of the diaphragm, entering the anterior mediastinal glands, and others extending from behind forward, are reunited from the anterior margin of the liver, then pass along the longitudinal fissure to join the glands of the gastrohepatic omentum; the entire group extending from the right lateral ligament into one large trunk, which pierces the diaphragm and extends along its upper surface; efferent vessels reenter the peritoneal side from this main trunk before it enters the anterior mediastinal glands to join the thoracic duct. The glands of the under surface enter those on the right side of the gall bladder to join the lumbar glands, while those surrounding the gall bladder form a plexus which opens, after accompanying the hepatic vessels, into the glands of the gastrohepatic omentum. While on the left side of the gall bladder, they pass to the œsophageal and to the glands along the lesser curvature of the stomach; while the deep lymphatics of the liver, after extending along the lesser curvature of the stomach, descend back of the pancreas, then forward to terminate in the thoracic duct. It is quite clear that communication between both the thoracic and peritoneal surfaces of the diaphragm through the arrangement of the afferent and efferent vessels is so intimate, that a descending infection from the pleura is quite possible, and will doubtless be found frequently to be the cause of infection of lymphatics in the lesser peritoneal cavity.

It is remarkable that no gall bladder colic occurred throughout the entire period of this illness. One would naturally expect such a condition to take place from contraction of the gall bladder in the earlier stage of obstruction. It can readily be understood that overdistention in the later period, such as existed here, would cause total paralysis, and would therefore remove the possibilities of painful contraction.

An interesting question arises in connection with this case: To what was this lymphatic enlargement due? To gastrointestinal infection, general septicæmia resulting from the presence of pus in the pleura, adhesions from previous ulcer of the duct or duodenum, previous pancreatitis, or fæcal distention of the hepatic flexure of the colon?

That no one of these conditions was a factor was clearly demonstrable at the time of operation. The only adhesions present were a few very delicate ones about the head of the pancreas, which played no part in causing obstruction. In this particular case, the obstructing lymphatics were those surrounding the common and pancreatic ducts at their point of meeting.

That the gastrointestinal tract was not the source of infection is shown by the fact that, so far as could be determined by exploration, the right side of the lesser peritoneal cavity was alone the seat of lymphatic enlargement, and that the peritoneal surface of the diaphragm on the side was richly studded with them. These facts, together with the history of the case, lead me to conclude that the case was one of compression obstruction, brought about by a simple lymphatic infection, possibly pneumococcic in origin, from the diaphragmatic pleura through a descending type of infection. As these cases invariably recover after simple cholecystotomy and removal of obstruction, diagnosis of course cannot be verified.

This chain of enlargement could be traced by palpation from this region, directly along the under surface of the liver to the diaphragm, and over its entire peritoneal surface throughout its right side, which seems to demonstrate clearly its origin in the empyema; nor was there at the time of operation, any evidence of a catarrhal cholecystitis. The subsequent course of the case has also proved its absence.

That enlarged lymphatics may be the cause of compression obstruction of the bile ducts, was further evidenced in a case of cancer of the stomach that came under my observation in March last. The case was clearly one of malignancy of the stomach, and as the malignancy was believed to be largely confined to the pyloric end, posterior gastroenterostomy was advised for the relief of the persistent vomiting. The patient was deeply jaundiced, and had been for the three preceding months. A well defined tumor was present to the right of the epigastric region. After the stomach was exposed, it was found that not only the pyloric end, but also the cardiac end, was the seat of extensive malignant change. Incision was extended so as to expose the gall bladder and permit exploration of the ducts. There were no adhesions whatever about the ducts,

head of the pancreas, or under surface of the liver, the enlarged lymphatics, however, extended from the lesser curvature of the stomach to the convex and under surfaces of the liver. At its lower third, the bile duct was completely compressed by these huge lymphatics, which were responsible entirely for the obstruction to the proper drainage of the gall bladder. After removal of a few of these, and draining the gall bladder, the patient experienced the greatest relief; vomiting, which before this time had occurred almost immediately after taking food or drink, and nausea which was constant, were entirely relieved, there still being drainage through the pylorus from the stomach, after removing the pressure caused by the distended gall bladder. Liquid food was taken in quantities of half an ounce, and no vomiting or distress was complained of during the entire period the patient was under my observation, which was five weeks; after which time he went to his home and has been decidedly relieved, though, of course, the progress of the malignancy has been in no way lessened. The relief, however, afforded by removal of obstruction caused by the distended gall bladder was marked.

In properly selected cases of this type, surgical treatment may be worth seriously considering, notwithstanding the certainty that malignancy will persist. There is no doubt that in many of these cases, a slight compression of the common duct by these enlarged glands will be sufficient to cause occlusive œdema of its mucous coat, of itself sufficient entirely to shut off drainage.

This malignant case illustrates clearly the possibilities of bile duct obstruction arising independently of disease, within either the gall bladder or duct, and not dependent on external pressure from such well known causes as fecal impaction in the hepatic flexure of the colon, hydatids, or any new growth save that arising within the lymphatics themselves.

Another condition that I have met with, causing obstruction in the absence of disease within the liver, gall bladder, or ducts, and unassociated with history of gastrointestinal infection, is fibroid thickening with adhesions of the head of the pancreas to neighboring organs. Here, again, the causes are extremely obscure, and usually not possible to assign before incision, as a record of the following case will show:

CASE II.—Mrs. F., fifty-seven years of age, was seen by me thirteen weeks after she had developed jaundice; and with its appearance excessive and constant nausea with frequent attacks of vomiting and loss of appetite, with very decided loss of flesh occurred. There was at no time any pain, though there was some distress of a girdle type in the right hypochondriac region. The symptoms, including jaundice, continued in spite of the most painstaking medical treatment, which was received

at the hands both of her family physician and of the consultant, who saw her on several occasions. The liver was markedly enlarged; the gall bladder could be readily outlined down as low as the crest of the ilium, and as far forward as the median line; there had also been several subcutaneous hæmorrhages. Fæces were entirely clay colored; urine was heavily bile-stained and contained epithelial and granular casts. There had never been any decided rise in temperature or any marked increase in pulse. Probable diagnosis was between malignancy and benign adhesions.

Operation, on June 7th, disclosed a gall bladder so distended with an entirely sterile, tenacious, glairy mucus, that rupture seemed shortly inevitable, had operation not come to its relief. After the gall bladder had been emptied of at least thirty ounces of this fluid, a search for the cause showed it to be adhesions of the head of the pancreas and ducts, to the parietal peritonæum posteriorly, the descending portion of the duodenum being also firmly anchored. The entire chain of lymphatics from the head of the pancreas to the diaphragm, over the lesser curvature of the stomach, and under surface of the liver, were all enlarged. There had never at any time been a history of gastrointestinal disturbance as gastric, pyloric, or duodenal ulcer, or previous hepatic nor pancreatic troubles, acute, subacute, or chronic pancreatitis. The patient's digestion had always been free from any complaint, and there seems but one source from which this infection could have occurred in this particular case, and that is through the splenic lymphatics, there being a history of malaria some two years previous, though, owing to the excessively fat belly walls, it was difficult to decide whether there was any enlargement of the spleen. Cholecystotomy was performed, after breaking up all adhesions about the ducts, the head of the pancreas, and the duodenum. Drainage was continued for three weeks, as during this time there was no evidence of bile passing through the duct; after this, however, it began to flow naturally. The tube was then removed and the fistula allowed to close, which it did in about three weeks. The hydramnios of the gall bladder in this case was the most extensive I have ever seen, and the dropsy of the liver most pronounced. Fully one and a half to two quarts of glairy, colorless fluid, which was entirely sterile, flowed through the drainage tube every twenty-four hours for a period of four days. It then lessened, and, by the end of the first week, approximately twenty-five to thirty ounces were discharged in the twenty-four hours.

I might cite a number of other cases that have come under my own observation in the past half dozen years, in which obstruction due either to simple lymphatic enlargement or to adhesions of the duct to the neighboring viscera, was the cause, as evidenced by the prompt recovery after cholecystotomy associated with the relief of adhesions, or removal of the large lymphatics had been performed, and where not a trace of disease could be found, either in the liver, gall bladder, ducts, stomach, or first part of the duodenum.

A number of additional cases might be cited in support of my belief that simple lymphatic infection brought to the lesser peritoneal cavity from organs and tissues remote from it, is a cause of some cases of obstruction of the common bile duct; wherein treatment by cholecystotomy and prolonged drainage are all that is required to bring about perfect recovery. Of course, the obstructive lymphatics with adhesions caused by the infection must invariably be removed at the time of operation. It should always be expected to find in this type of cases obstruction to the duct of Wirsung, as it is at the junction of the common bile duct with the pancreatic that compression obstruction, due to lymphatic enlargement, has been found. We shall, therefore, meet with many cases where annoying hæmorrhage will accompany jaundice due to pancreatic obstruction, and unless guarded against by preparatory treatment will prove troublesome, if not fatal, at the time of operation.

DRY HOT AIR IN THE TREATMENT OF BRIGHT'S DISEASE.*

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(Concluded from page 1084.)

When we consider the large number of pathological conditions in which the reconstructive functions are deficient, the modifications in the composition of the blood noted above assume an interesting significance; and when we think of the number and variety of diseases which are dependent, wholly or in part, upon the retention in the system of products of suboxidation, the sphere of action of the body hot air treatment, as indicated by its effect upon oxidation and the excretory functions, becomes extended within limits of considerable magnitude.

The general phenomena induced by the body application are as follow:

The mouth temperature rises from one to five degrees, Fahrenheit, according to the length and

intensity of the application, and the susceptibility to stimulation of the individual patient's deep nerve centres.

The pulse is accelerated from thirty to fifty beats per minute, and is markedly increased in volume. If it was weak before treatment it now becomes strong. If the application is continued too long it loses its volume and strength, becoming rapid, small, and soft. Under these conditions the patient becomes dizzy, faint, and nauseated.

The respiration deepens and the rate increases five to ten cycles per minute, but this is not accompanied by any oppression—rather the reverse, in fact.

The capillary areas become injected, but this phenomenon is not so marked in the regions actually in contact with the heat as with the local treatment. The fact that the capillaries of the face, which is never subjected to the heat, share this general distention, even when constantly under the influence of the breeze from an electric fan, demonstrates the profundity of the reflex obtained.

The patient reeks with perspiration, the acidity of which is markedly increased over that normally exhibited.

The sensation is not disagreeable to the patient, but quite the reverse, usually. A pleasant languor ensues after about ten minutes and lasts for an hour or two, and the patient usually becomes drowsy and sleeps. If the treatment is continued too long the languor gives place to exhaustion, with cardiac palpitation and oppressed breathing, which sometimes persists for hours.

By this profound stimulation of the deep trophic centres we secure a more rapid and complete oxidation of effete materials which are clogging metabolic processes figuratively speaking, into normal excretory products—urea for the kidneys, CO₂ for the lungs, etc., which are then easily disposed of by the appropriate organs, and a rapid production of more vigorous and healthier cell elements, which are much better able than their predecessors to resist toxæmia and microbic invasion. We not only obtain a corrective influence in nutritional disorders whose origin is in the deep sympathetic, but if the patient is suffering from an infectious invasion, we vastly increase the resisting power of his phagocytes and tissue elements. The profuse perspiration carries out with it also a certain amount of toxine, and thus assists in relieving the depression of nerve centres due to systemic toxæmia.

The functional activity of every organ and tissue in the body is immediately augmented, but this exaltation of function is not followed by a re-

* Read at the annual meeting of the New Haven County Medical Association, at New Haven, Conn., April 16, 1903.

actionary debility, if good judgment and proper technique have been applied to the administration. Patients frequently continue to improve generally for months after a course of body hot-air treatments.

We have the power, then, of inducing by the employment of the body hot air treatment, first, a reflex stimulation of the deep sympathetic nerve centres, which is more profound, judging from the amount of metabolic acceleration dependent thereon, than that obtainable with any other measure now known, and which in connection with the actual increase in the body temperature induced, satisfies the first two demands of our rational plan of treatment; and second, a degree of eliminative activity, which when once seen, leaves no room for doubt, in the mind of the observer, as to its relative profundity when contrasted with that producible with other measures, which satisfies the third and last demand of our plan.

I will say here that such a degree of tissue waste would be dangerous if no compensatory tissue reconstruction obtained, but, as a matter of fact, we find that the formation of new tissue elements proceeds with an equal and sometimes a greater degree of acceleration, and the patient gains flesh during a course of these treatments.

Judiciously administered, therefore, body applications of hot air made with an intelligent and appropriate technique, are not "weakening," as is commonly believed, but are under all circumstances and in all conditions the most powerful stimulant and general tonic measure to be found in our armamentarium.

It would seem, then, that body hot air applications should constitute an ideal therapeutical element in connection with Bright's disease; and to illustrate the influence which the agent sometimes exercises over the symptomatology of the affection, I will cite briefly the following instance:

CASE.—A locomotive engineer, aged forty-eight years, was admitted to the sanitarium at noon, January 13, 1902. Three months previously he had begun to notice that his feet were swelling, that he was having occasional headaches, attacks of vertigo, and difficulty in breathing during exertion, but thought little of it, as he was very fleshy. The symptoms shortly increased to such an extent, however, that he consulted a physician, who recognized the trouble, judging from his prescriptions, but did not inform the patient. He continued to grow rapidly worse under treatment, and soon after consulted another with a like absence of results as far as improvement was concerned.

When he consulted me his condition was one of great gravity. He had been unable to attend to his duties for three weeks. The subcutaneous

tissues all over the body were greatly distended and fluid was present in the abdominal and pleural cavities. Respiration was irregular, nearly impossible in the recumbent, and very difficult in the upright, position, and ranged from thirty-six to forty cycles per minute. Pulse small and wiry, irregular, and from 100 to 115 per minute. The least exertion brought on alarming acceleration and embarrassment of both respiratory and cardiac functions. Temperature 99.1° F. Patient was profoundly prostrated. Weight 325 pounds. Height five feet eleven inches.

He was passing urine with a specific gravity of 1.002, which was loaded with albumin and casts. As the twenty-four hours' urine had not been collected previously to his admission, the total urea output for that period was not determinable, but as I was unable to convince myself that the quantity was excessive, the low specific gravity would indicate that it must have been considerably below the normal.

He was given a body hot air treatment at 4 p. m., during which he perspired as I had never seen a patient perspire before. By the time the treatment was concluded, his respiratory oppression had noticeably diminished, his pulse had increased to a marked degree in volume, and the irregularity which had previously characterized both functions, was considerably less evident. The skin upon his legs and abdomen, which had previously been so tense as to threaten rupture, was wrinkled, the subcutaneous tissue could be felt as having softened in a marked degree; and he expressed surprise at the facility with which he could perform bodily movements, as compared with the painful stiffness and sense of distention which accompanied his efforts before the treatment.

That night he was able to sleep considerably *lying down*. During the next twenty-four hours the following changes were observed: The respiratory and cardiac embarrassment continued to decrease, the irregularity characterizing the latter function entirely disappearing; the dropsy rapidly diminished until by night it had entirely disappeared except in the legs, and the condition of these members was by no means formidable; he rested comfortably and took his nourishment with enjoyment. He had perspired more or less continuously since the treatment, and had passed four and a half litres of urine with a specific gravity of 1.022, as compared with the 1.002 exhibited by the specimen taken before treatment, which figure indicated that about four times the normal amount of urea had been excreted during this period. A decrease of about fifty per cent. in the quantity of albumin obtained. His weight was 280½ pounds, as contrasted with 325 pounds on the previous day. To make a long story short, he received ten body hot air treatments during the next two weeks, at the end of which time he felt well enough to go home and to work, which he did, against my advice and judgment, however. During these two weeks he had improved steadily in all directions. The albumin in the urine continuously decreased, as did also the dropsy of the legs. The specific gravity of the urine ranged from 1.004 to 1.014, except after the body treatments, when it sometimes reached 1.020 and over.

The daily quantity of urine passed ranged from 2 to 4½ litres. He began to go out for short walks after the first five days. During the last few days absolutely no dropsy was discernible in the morning, but it would appear to some extent in his legs at night, or after he had been out walking.

The other remedial measures which were applied simultaneously with the hot air were restriction of the diet to milk, junket, and cereals, for the first five days, after which eggs and milk toast were added; a grain and a half of calomel in divided doses three times during the two weeks; general static electrical applications, once daily; and during the last four days of his stay a gentian and iron tonic which he was directed to continue after he left.

These results, then, confirm clinically, the conclusions logically deducible from a consideration of the physiological action of the agent with reference to the pathology of albuminuric nephritis, and that the result was due to the *hot air* is fairly well demonstrated by the fact that he had continued to grow steadily and rapidly worse under the ordinary methods of therapeutics when employed *alone*, before he came to me.

Before closing, I should like to state a few facts regarding hot air therapy in its general relations, if you please, and these facts bear upon the use of this agent in the treatment not only of Bright's disease, but every other disease.

The impression is very prevalent that dry hot air is lauded by its advocates as a panacea for all ills, to the exclusion of other remedial measures which have been demonstrated to be of value in diseased conditions. This impression is entirely erroneous, and the sooner it is removed the sooner will the thermotherapist be relieved from the undeserved opprobrium attaching to the false position in which it places him.

While it is unquestionably desirable to reduce our therapeutical armamentarium to its simplest form yet it would not be desirable, wise, or humane, to withhold any useful agent from a suffering patient when the influence of that agent would prove beneficial to him. Valuable and numerous as have been the additions to our list of remedial agents during the past few years, yet we still frequently encounter cases which tax our resources to the utmost, and sometimes those in which our most strenuous efforts are inadequate for securing the patient's recovery. While the use of dry hot air renders the use of many of the older measures unnecessary, because under its application the indications for the employment of the older measures do not arise, yet when a rational indication exists for the administration of any other remedy it should by all means be heeded, and in many pathological conditions hot air *needs* to be

supported by other measures in order that a satisfactory curative result may be obtained.

Just a word in reference to apparatus and technique. For securing the best results from the application of the body dry hot air treatment the apparatus should be capable of generating a heat of at least 350° F. in half an hour and of maintaining it at that point indefinitely. The heat should equalize itself in all situations and localities inside the apparatus, so that the thermometer reading and the temperature of the air which actually comes in contact with the patient should not differ more than ten per cent. of the thermometer reading. The simpler the construction of the machine the easier will be the attainment of this result.

The difference between proper and thorough technique and the reverse will frequently constitute the difference between success and failure in clinical results, and in direct proportion to the prominence with which this fact is endowed in the mind of the prescriber of hot air therapy, will the benefit accruing to the patient be pronounced. Experience in the management of hot air apparatus and a good knowledge of the clinical phenomena producible with it, are very necessary. The current idea that it is a perfectly easy matter for any physician to secure a hot air apparatus and treat his patient, without any special knowledge of the agent or of the technique involved in the management of it with reference to different pathological conditions, is entirely erroneous and much to be deplored. When this unfortunate impression has been eliminated, better results may be looked for from the general employment of the agent, and appreciation of its beneficent powers will succeed to the lack of confidence with which it is so frequently regarded at present. The bulk of its failures to accomplish results in the past have been due to a lack of proper knowledge of its clinical possibilities and physiological action, familiarity with which would have taught that the effects demanded should never have been expected of it, and because of inefficiency of the technique followed with reference to the individual case.

One of the most prevalent errors in the popular conception of the *modus operandi* of the curative powers of dry hot air, is that it produces its effect merely through the induction of integumental hyperæmia, and toxine elimination as represented by the induction of profuse perspiration. This has led to applying the agent at temperatures only sufficiently high to produce sweating, that is, from 200° F. to 250° F. By this means elimination has been secured, and very effective elimination, too, but that is all. Now to obtain the best and the

permanent curative influences of dry hot air, we must not only induce elimination, but we must also supplement and perpetuate as far as possible the advantage dependent thereon, by augmenting the trophic reconstructive functions whereby we increase the patient's constitutional resistance, and effective stimulation of these processes is not possible unless the higher temperatures, from 300° F. to 400° F. are used.

I wish also to refer briefly to a popular criticism upon hot air, viz.: that the curative results dependent upon its use are not *permanent*. This criticism is based upon the belief that hot air is only a palliative measure, like a dose of morphine in painful conditions for instance, and would never be entertained if the profound influences upon physiological function which we have been discussing, were taken into consideration. This belief was probably engendered by the observation that cases of rheumatism treated with hot air *alone* very frequently *did* "come back," but this merely means that the disease was not *cured* because the thermal agent was not properly supported, and neither hot air or any other remedial agent can be expected to do alone what it will when combined with proper adjuncts. The advantages exhibited by hot air consist in its power to accomplish, either alone or in combination with other agents, that which it is impossible for any other combination of agents to accomplish without the aid of hot air.

Another fact bearing upon this criticism is that when we have carried a patient through an attack of pneumonia, typhoid, rheumatism, or any other disease, except where the ætiological factor has been removed surgically, we cannot assure him that he will never have the disease again, no matter what curative agents we have employed. We can only be certain that this one attack has been extinguished. If appropriate environmental and constitutional conditions again obtain he will surely have to sustain another attack, no matter how perfect may have been his health in the meantime. When men no longer contend with conditions which engender habits of life that are inconsistent with their perfect physical health, then, and not till then, shall we be immune from repeated attacks of disease, and when that millennium has arrived, hot air and every other remedial agent will have retired to the oblivion of complete desuetude.

In closing, gentlemen, permit me once more to emphasize the fact that the key in the successful employment of dry hot air in the treatment of Bright's disease, or *any other disease*, consists in bearing in mind that the agent is simply a rational therapeutical measure, exhibiting a known and

constant physiological action, which furnishes a logical basis upon which to consider its application to a given case if the case in question presents a known pathology. It will, alone and unaided, cure some disease processes; others will require that additional agents be combined with it; and in still others all the curative resources at our command will not suffice to effect the patient's recovery. It exhibits in a marked degree the capacity to increase our power to overcome pathological conditions, and because of this and the effectiveness of its influence in many situations unmanageable with other remedial measures, it is entitled to a prominent position in our armamentarium.

THE ELEMENT OF FAITH IN HEALING.

By P. C. KALLOCH, M. D.,

PORTLAND, ME.

It is a matter of observation that, in the practice of medicine, remedies in general have their periods of fashion; are lost for a time and are again taken up as new discoveries. Some of the drugs in present use, when administered to a sick or a well person, have a uniform effect; as, for instance, the slowing of the pulse by aconite and the hypnotic effect of a certain class of drugs. There are few drugs, however, if any, that have a specific effect in attacking a disease process and restoring the normal condition to diseased tissues.

Disease may be said to consist of an abnormal or changed condition of tissue cells. This condition may be temporary when due to the presence of foreign matter, as a toxine, or the tissue cells may be permanently changed from the presence of a deleterious substance, originating within or without the body.

The process by which a cure is effected has always been a matter of speculation, each physician having his own theory, but it seems likely that the modern theory of the production within the tissues of antibodies, may explain the special action of remedies in a way that will be acceptable, at least to the majority of the profession. There must, however, exist a want of uniformity in the action of remedies, depending upon certain well known causes, some of which I will enumerate.

A disease may exist in almost any degree of severity, at one time being of so mild a nature as scarcely to be recognized; at another, so severe as to be quickly fatal without regard to human effort. There are all shades and variations between these extremes. There are, too, individual peculiarities which render the effects of treatment lacking in uniformity, and there are differences in the strength of remedies, due to differences in the mode of manufacture, and perhaps to

the age or other quality of the drug. Next might come the difference in the method employed by physicians in the dosage or combination of remedies; and lastly, but of great importance, the individual character of the physician as affecting the condition of the patient. Taking, for example, a physician of strong personality and a patient of weaker calibre, a better result might be expected, other things being equal, than in a case in which the individual relation was reversed, and so we might expect a great variety of results depending on this one feature.

It is a source of surprise to physicians practising a given school of medicine, that other schools, whose teachings seem to them entirely lacking in logic, rise and flourish in the presence of their honest effort; but it is probable that if inquiry were made, abundant testimony would be found that suffering is relieved and Nature assisted in the cure of disease by all these so-called irregular methods. It would also be found that the attitude of confidence existed on the part of the patient in his physician and on the part of the physician in his own ability to cure.

It is frequently noted that irregular schools of practice have as their basis an element of truth which accounts for their success. In addition, the hygienic direction of cases of illness and the fact that most cases would recover through the unassisted efforts of Nature, has been given as the reason for success. In different forms of faith cure, the susceptibility of a certain class of patients to suggestion is said to be responsible for unusual results. But we have learned that all persons are susceptible to suggestion, and the matter apparently merits more attention from physicians than it has received.

It is too much the fashion to ridicule and cry down the theories and practices which differ from our own, instead of adopting or taking advantage of what is valuable in a given method. The sectarian does not hesitate to give a dose of morphine to relieve pain, nor does he reject any other practice which is not contained in his philosophy, provided it seems to his advantage or to that of his patient. Then why should we, who call ourselves "regular," not adopt any method which seems to us of value in the relief of sickness and suffering?

It seems abundantly proved that the mental attitude between the physician and his patient is a matter of great importance, and that this attitude should be one of the greatest confidence. May this confidence not be produced or increased by suggestions of the physician's ability to improve or cure, or that the effect of remedies which are given will be beneficial? Suggestive treat-

ment, in the minds of many, smacks of charlatanry, but are we not aiming to cure the sick rather than trying to establish reputations as followers of a certain code or method of practice? We must all admit that the good of the patient must be first considered, and we should, therefore, adopt any valuable principle which would assist in bringing about such a result.

This innovation need not involve unreasonable or unscientific statements on the part of the physician. There are practitioners who cover lamentable ignorance by a wise and owl-like expression and pompous manner, and this appearance and manner are undoubtedly of value to the patient, if they inspire confidence. But it is to the more conscientious that the value of this principle should be upheld. A physician who is timid and lacking in self-confidence should not expect to impress the world with the value of his professional ability.

A limited study of the cures which have been produced through faith in a remedy or in the healer's skill, should convince us that this valuable adjunct should not be lost to a profession whose aims are usually far above self interest.

A CASE OF POISONING BY HYOSCINE HYDROBROMIDE.*

By FREDERICK KRAUSS, M. D.,

PHILADELPHIA,

OPHTHALMOLOGIST TO ST. CHRISTOPHER'S HOSPITAL
DISPENSARY.

I wish to report a case of poisoning by hyoscine hydrobromide used as a mydriatic. This instance is of particular interest, in view of the comparatively small dose administered and the severity of its effect.

CASE.—Miss X., aged fifteen years, well developed and in normal health, suffered from eyestrain, but had no serious changes in her eyeground. To relax the spasm of accommodation which appeared to be present, I prescribed for her use a solution of hyoscine hydrobromide, two grains to the ounce of distilled water; two drops to be instilled into each eye, twice daily.

The only instillation took place at 9.30 p. m., just before retiring. The drops were compounded and used carefully by her father, a druggist.

At one o'clock a light was noticed in the room of the young lady, by a neighbor, who thought that the patient was studying. At 1.30 a. m., the girl came to her parent's room and awoke her mother, speaking very rapidly and incoherently, and repeating constantly that it was very late, and

* Read before the Northern Medical Association, Philadelphia, October 23, 1903.

that she must arise. She suffered mainly from hallucinations of sight—for instance, she thought that she saw on the floor a large caterpillar, four inches long. She could not be convinced to the contrary. Her mother suggested that it flew out of the window, which made the patient remark that it crawled very slowly and could not fly.

She was constantly moving her hands, especially, as though she was picking up things, which she said different persons were handing to her.

Her conversation was usually incoherent, and very rapid, whereas her ordinary speech is very deliberate. In her delirium she constantly spoke as though conversing with her school friends.

An investigation of the room occupied by the girl revealed everything in great confusion. The blankets and bedding had been removed from the bed and an attempt made to stuff them into bureau drawers; the chairs were upset, and everything was topsy turvy. The patient had removed all her clothing, including her night dress. The hallucination and excitement continued until 5 a. m., when the patient fell asleep, and after awaking later in the morning felt as well as ever.

The patient says that she felt giddy almost immediately after the use of the drops, and was dry and felt warm, her cheeks burning. She went to bed as usual, but does not remember making a light, or removing her night dress and bed clothing, but remembers somewhat confusedly trying to get to her mother's room to awaken her, and wandering about the house, as she thought it was broad daylight and 7 o'clock on a rainy morning. She remembers that she was very much confused, falling over chairs and other objects in the room. She remembers seeing a large caterpillar, and being in her mother's room, but otherwise her mind is blank concerning the things seen and spoken about.

In this case, therefore, shortly after an instillation of hyoscine hydrobromide, $\frac{1}{120}$ grain into each eye, by an unusually careful man, we had symptoms of dizziness, flushing of face, dryness of throat, delirium, hallucinations, abnormal mental and physical excitement lasting seven hours and a half; recovery being complete without any treatment. The accommodation was normal three days later.

When it is remembered that in young children of from three to five years of age, atropine sulphate, in doses of $\frac{1}{60}$ grain, is instilled into the eyes from two to four times daily in cases of corneal ulceration, without causing symptoms of poisoning, the effect of the small dose of hyoscine is the more remarkable.

Another lesson taught by this experience, is that the first instillation of a mydriatic for the purpose of refraction should be made during the daytime, preferably the morning, instead of the evening, the time usually selected by our patients.

A delirium occurring thus in the middle of the night might readily be followed by some fatal secondary accident.

Our Subscribers' Discussions.

A SERIES OF PRIZE ESSAYS.

[Questions for discussion in this department are announced at regular intervals. So far as they have been decided upon, the further questions are as follows:

XXVII.—How do you treat paraphimosis? (Under adjudication.)

XXVIII.—What do you rely on in the diagnosis of small-pox in the papular stage? (Under adjudication.)

XXIX.—How do you treat nocturnal incontinence of urine? (Answers due not later than December 18, 1903.)

Whoever among our subscribers (with the limitations mentioned below) answers one of these questions in the manner most satisfactory to the editor and his advisers will receive a prize of \$25. No importance whatever will be attached to literary style, but the award will be based solely on the value of the substance of the answer. It is requested (but NOT REQUIRED) that the answers be short, if practicable, no one answer to contain more than six hundred words.

Only subscribers to the NEW YORK MEDICAL JOURNAL AND PHILADELPHIA MEDICAL JOURNAL (including regular and volunteer officers of the Medical corps of the United States Army, Navy, and Marine Hospital Service, commissioned or under contract) will be entitled to compete, and all persons known to be engaged in medical journalism are disqualified. This prize will not be awarded to any one person more than once within one year. Every answer must be accompanied by the writer's full name and address, both of which we must be at liberty to publish.]

The prize of \$25 for the best essay submitted in answer to question XXVI has been awarded to Dr. Anna S. Wilner, of New York, whose article appears below.

PRIZE QUESTION NO. XXVI.

THE TREATMENT OF HABITUAL ABORTION.

By ANNA S. WILNER, M. D.,

NEW YORK.

In treating a case of habitual abortion one should always endeavor to find the cause of the trouble, as the treatment depends upon it altogether. In the great majority of cases it will be either syphilis or backward displacement of the uterus.

If a straight history is given on either of the parents' side, the diagnosis is easy, otherwise the patient should be very closely questioned as to the family and personal history and also carefully examined. Very often all one gets is the history of some hard and slowly healing sore on some part of the body, or that of a sore throat of prolonged duration, or nocturnal headaches, or loss of hair or the mention of any single one of the numerous symptoms of syphilis in all its stages.

On examination one may only find the dead white pits surrounding the mouth or the linear scars radiating from the angles of the mouth and nose, or the corona Veneris, or the white tissue paper scars on the anterior surface of the leg, or any of the other marks of the disease so easily overlooked.

There is one peculiarity often noticed in habitual abortion due to syphilis, and that is that each successive abortion occurs at a later period than the preceding one, owing to the fact that the date of infection becomes more and more distant and the poison less and less virulent, but this holds good only in cases where the general health has remained good.

So, if syphilis is found to be the cause, both parents if possible should be treated before conception takes place. Mercury and iodine should be used either in the form of the protiodide or biniodide of mercury or the "mixed treatment." The mother should keep up the medication until the end of pregnancy with intervals, stopping short of diarrhoea and salivation. The more recent the date of infection the more energetic should the treatment be.

The cause next in frequency in causing habitual abortion is backward displacement of the uterus, especially retroflexion. One should always make a vaginal examination in these cases, as no matter how clearly some constitutional disorder may be found as the cause of the trouble, there is always the possibility of a local defect aggravating the condition. So, if on examination the fundus uteri is found in the cavity of the sacrum and the cervix pointing downward and backward, or upward and forward, if the case is one of retroversion, the uterus must be replaced. For this the patient is put in the knees and chest position (all the waist bands having been loosened first), and with one or two fingers introduced into the vagina the fundus is gently pushed forward; if it does not go readily forward the cervix should be caught with a volsella (double-toothed preferred), and while the inside finger pushes the fundus the other hand by slight traction and upward movement of the forceps helps it along, and the fundus will fall toward the pubic bone. Unless there is incarceration the desired result will be attained.

When the fundus is thus replaced it should be kept in place by a well fitted retroflexion pessary. This should be worn steadily until the uterus grows too large to fall back, which is about the period of three months to three months and a half. The patient should be told to return as soon as she feels any discomfort, as it is only when the pessary does not fit that she is conscious of it, and then it may do harm. She should also take the knees and chest position several times a day and return every two weeks, so that she may be examined for any irritation of the vaginal walls from the pessary. In cases of retroversion habitual abortion is less common, as the uterus usually rises as it grows larger

and pregnancy goes on. If this does not happen, the treatment is the same as in retroflexion.

Endometritis and metritis are the causes next in frequency. The treatment here is by curetting the uterus and ordering abstinence from sexual intercourse for about two months, so as to avoid the congestion of the pelvic organs.

Of the other local disorders pelvic adhesions will often produce repeated abortion, especially those on the right side, accompanied with chronic appendicitis and involving the cæcum. The treatment for this is that of chronic appendicitis and freeing the different organs of adhesions. Adhesion in the other parts of the pelvis and abdomen will often rise and stretch with the growing uterus, and so not interfere with the continuation of pregnancy.

If a prolapsed uterus is the cause, insert a support. If it is a lacerated cervix, advise having it repaired. Fibroid or carcinomatous growths may produce repeated abortion, that is, before they are gone far enough to make conception impossible. The treatment here is that of the original trouble, but it is not encouraging. An infantile or malformed uterus has been known to cause the same trouble. In the first instance electricity may be tried, as it often promotes the growth of this organ. The second condition is beyond us.

Of the diseases affecting the foetus, except syphilis, apt to cause repeated abortion, certain malformations, especially those of the cord, have been known to repeat themselves in the same patient and bring about repeated abortion. Of the other constitutional diseases prone to cause habitual abortion, except syphilis, we have the diseases accompanied with convulsions, of which the various forms of nephritis with albuminuria are the most important. Also chorea may be the cause, and only occasionally epilepsy.

Tuberculosis, if not too far advanced, and the tuberculous diathesis, may be at the bottom of the trouble, in some cases. A point helping to distinguish these cases from those of a syphilitic origin is that here each succeeding abortion will be at an earlier and earlier period, on account of the usually progressive failure of the general health, whereas in syphilis it is the other way, as has been pointed out. Diabetes, anæmia, especially the pernicious form, and malaria may cause repeated abortions. In all these cases the constitutional trouble should be treated and good health kept up by every possible means. In malaria large doses of quinine should be prescribed. There need be no fear of its oxytocic effects here.

Chronic lead poisoning has been found to cause repeated abortions quite frequently, and nicotine

poisoning only occasionally. All the above mentioned diseases, even when only affecting the father, may be held responsible for the trouble in question. A very hot climate, life in too high an altitude, pregnancies in too rapid succession, consanguinity, extreme age of either of the parents, and the extreme habits of social life, especially on the mother's side—all these conditions may cause habitual abortions and each one calls for its own treatment. Once in a while one may come across a patient who has her abortion repeatedly brought on, but for some reasons of her own will feign ignorance as to their cause.

Lastly, there is a group of cases classed as the abortive habit or the irritable uterus, on account of the lack of any facts formed either in the history or examination of the patient that would throw any light on the ætiology of the trouble. The treatment here should be with uterine sedatives, rest at the time that a menstrual period is due, as it is then that the abortion more frequently takes place.

But it is exactly in such cases, as well as in others where no possible cause is found, that one should keep in mind constantly the fact that, after all, syphilis is the most frequent cause of repeated abortions, and should remember that one must never rely upon the history in syphilis, as, in the first place the initial lesion, especially in the female, is often trifling and may have either escaped notice or been forgotten; that, in the second place, some will wilfully deny the fact of having been infected; and that, after all, syphilis is met with in all classes of the community, and therefore, if no cause can be found in a case of habitual abortion, one is justified in putting the patient on specific treatment.

133 WEST TWELFTH STREET.

Dr. Frances Bradley, of Atlanta, writes:

The treatment of habitual abortion resolves itself into treatment before abortion and later such attention to the patient as will interrupt or overcome this unnatural habit.

I. A patient with threatened abortion should be at once put to bed, quieted mentally and physically by quarter grain doses of codeine and a drachm of fluid extract of viburnum prunifolium every two or three hours. Gentle laxatives should anticipate intestinal straining, and a scant and simple diet avoid possible nausea and vomiting. The patient should be kept in bed during the week of each month when her courses would be due, also at the time of her previous abortions, if of uniform occurrence.

A case of inevitable abortion before the fourth month is usually complete, and requires no treatment other than rest in bed a few days and forbidding tampering with the pelvic parts. If it is incomplete, place the patient in the knee-chest pos-

ture, pack the posterior cul-de-sac with sterile gauze and extend it around the cervix, packing firmly and evenly the entire vagina. After twelve hours the products of conception ought to be removed with the gauze. If not, repeat for another twelve hours, packing also the cervix. Failing to respond to this, the latter must be dilated digitally and the contents of the uterus removed. Under as rigid asepsis as for a surgical operation, introduce one finger, then two, three if necessary, gradually dilating till the finger can be freely swept around the wall of uterus, detaching carefully whatever may be left of the secundines. A copious uterine douche of hot saline or alum solution, followed by wick of gauze for drainage, will leave the patient in good condition, except in old, neglected case, where curettage may be necessary.

II. The immediate abortion past, the real battle begins in locating and overcoming the causes of this tendency to abort. For clinical purposes they may be considered as (a) predisposing and (b) exciting.

Of predisposing causes the commonest, at least in dispensary work will often disappear under "mixed treatment" to one or both parents. But, excluding this and confining ourselves to the maternal organism, we meet most often with malpositions, abnormalities of the uterus, endometritis, anæmia, and continued strain, mental or physical.

Malposition, usually retrodisplacement, may be overcome, if the uterus is freely movable, by packing the posterior cul-de-sac two or three times a week, the woman in the knee-chest posture. Continue this till constitutional treatment has toned up her organs or until a later pregnancy has lifted the uterus above the pelvic brim. If bound down by old inflammatory adhesions, break them up under anæsthesia and pack as before. Any abnormalities should be corrected, foreign growths removed, and lacerations repaired.

If the trouble is due to endometritis, microscopical examination will determine the character of the secretion. If it is the simple catarrhal, local treatment with iodine, or tampons saturated in a glycerin solution of boric acid or ichthyol and glycerin, frequent and copious hot douches of alum solution, followed by rest in bed, are indicated. Daily salines and occasional punctures of cervix will further deplete if it is markedly congested. Of equal importance will be found constitutional treatment by tonics, baths, massage, and plenty of out-of-door exercise. If the endometritis is of gonorrhœal origin, stronger applications, as of silver nitrate, carbolic acid, etc., will be required. Anæmia must be met by appropriate tonics, iron, strychnine, arsenic, and constitutional treatment as indicated above.

Another predisposing cause deserving careful attention is the mental attitude of the aborting woman. If she can be convinced that her body is subject to her mind, that her repeated abortions are the result of lack of poise or of will power, this assurance, together with her longing for children, will serve as a powerful incentive.

The exciting causes consist of sudden muscular or mental strain, and call for preventive rather than curative treatment. The woman must be taught the necessity of avoiding any undue muscular strain and shunning all possible exposure to fright, excitement, or exhaustion, of giving herself and her child a period of quiet, simple, wholesome life. In this way she may be carried over the time of her former abortions and enabled to go to term with all the safety and comfort to which every woman is entitled.

Dr. Eugene R. Corson, of Savannah, writes:

By "habitual abortion" I understand a series of abortions, often at different stages of gestation, dependent upon some diseased condition of the endometrium, placenta, or ovum, or all three combined, in most cases traceable to syphilis and independent of uterine fibroids, uterine displacements, or any condition of the pelvic organs requiring surgical intervention. These latter conditions are purely surgical, are largely unaffected by drugs, and produce symptoms calling for treatment independent of the tendency to abort. In the first instance the abortion is *the* feature of the case, and with the cause usually unknown to the patient. In the second instance the abortion is the result of evident uterine or pelvic trouble for which the patient seeks relief.

The physician who practises in the South, among a large colored element, is often called upon to treat this trouble, from the light mulattress to the full-blooded negress, and he has drawn for him a clinical picture in bold and sharp lines. Among the whites I have had but few cases, and I should put the relative frequency between the two races at about one to six, a rather marked contrast.

The trouble is preeminently a maternal one; I have relieved all my cases by treating the mother solely. While syphilis undoubtedly stands first as a causal factor, and can be traced in a majority of the cases, yet I have had some typical cases where it was quite impossible to find a specific history or to trace any specific infection. In some cases both man and wife seemed in perfect health. The disease may be located in the endometrium, placenta, or ovum, or all combined, and I should designate "placental apoplexy" as the chief immediate cause of the abortion.

I always advise an initial uterine curettage when

the patient applies for treatment before impregnation. Its value is twofold. It removes any diseased endometrium which may be present at the time, and it has a most salutary effect upon all the pelvic organs, improving the pelvic circulation and relieving various congestions and even more pronounced disorders of the annexa. And yet I must say that in some of my most brilliant cases the patients came to me after impregnation had taken place and curettage was ruled out, and the long continued internal treatment was alone employed. I know of no morbid condition treated by drugs alone which shows such brilliant results for both mother and child.

One of the many valuable lessons taught us by Mr. Lawson Tait was that of the beneficial effect of the salts of potash on the pelvic and uterine circulation. With Mr. Tait it was almost a matter of indifference which salt of potash he employed, but he used mostly the chlorate and the bromide, at least in acute troubles. My own experience has borne him out in every particular. I make, however, a distinction in their use. In acute pelvic congestions, with menorrhagia or metrorrhagia, I prescribe the bromide or the chlorate because the patient can take larger quantities of the potash which the acute condition calls for, while in the more chronic forms, where the treatment must be long continued, I give the iodide, which is the deeper-acting drug.

These three drugs give good results in this trouble. They can be varied and prescribed in combination with other drugs as the conditions indicate. The iodide must stand prominently first for various reasons, and in combination with corrosive sublimate will meet most cases. I prescribe the following:

R. Potassium iodide.....	1 ounce;
Corrosive sublimate.....	2 grains;
Water	8 ounces.

M. Sig. A dessertspoonful, well diluted with water, three times a day, after meals.

The dose, of course, may be varied to suit the case, as well as the form of mercury. This treatment is kept up with few or no intermissions throughout the nine months and for three months after the birth of the child, whether a syphilitic history can be traced or not, and I have found it just as efficacious in the one case as in the other.

Should there be any flow during the pregnancy threatening abortion, the following is prescribed:

R. Potassium chlorate.....	2 drachms;
Tincture of hydrastis canadensis.....	1 ounce;
Water	7 ounces.

M. Sig. A dessertspoonful every hour till relieved.

Of course, rest in bed, elevation of the hips, perfect quiet, and the icebag suggest themselves in

addition. Where pain is a distinct feature the bromide is the proper salt, and this may require a combination with some preparation of opium.

I should put the iodide first, the chlorate second, and the bromide third. The iodide in combination with mercury has proved absolutely satisfactory in all my cases. I have not used any other remedy. If the patient cannot take the iodide, I believe the chlorate will act about as well, and by some it is so prescribed. If there is any bladder complication, the chlorate is further indicated, and here, too, the bromide is beneficial.

Besides this treatment the proper hygiene of pregnancy should be carried out. The class of patients suffering from this trouble probably violate all the laws of hygiene, and it is surprising how successfully the treatment will carry them through if they but follow it perseveringly.

Therapeutical Notes.

Methylene Blue in Tuberculous Diarrhœa.—Combemale and Maguin in *Revue française de médecine et de chirurgie*, for November 9, 1903, corroborate the testimony of L. Rénon as to the value of methylene blue in obstinate diarrhœa, particularly in tuberculous subjects. The formula they used, was:

R Methylene blue.....15 centigrammes ($2\frac{1}{4}$ grains);
Lactose60 centigrammes (9 grains).

M. Two such capsules daily.

A Nutritive Enema.—*Revue française de médecine et de chirurgie*, for November 9, 1903, gives the following formula:

R Eggs, freshly beaten.....1 to 3;
Liquid peptones.....50 grammes ($1\frac{1}{4}$ ounces);
Solution of glucose, 20 per cent.....100 grammes ($3\frac{1}{2}$ ounces);
Sea salt..... $1\frac{1}{2}$ grammes ($22\frac{1}{2}$ grains);
Pepsin $\frac{1}{2}$ gramme ($7\frac{1}{2}$ grains);
Tincture of opium.....3 drops;
Fresh bouillon.....200 grammes ($6\frac{1}{2}$ ounces).

M. For one enema.

Corns and Warts.—*Journal des praticiens*, for November 7, 1903, says a professional reputation is often built up by ability to give relief in apparently trifling but really painful or disfiguring lesions as corns and warts. Painting with the following lotion, which causes only a slight burning, may be done daily for a week, when a hot bath and friction will extract the offending growth:

R Salicylic acid.....1 gramme (15 grains);
Extract of cannabis indica..... $\frac{1}{2}$ gramme ($7\frac{1}{2}$ grains);
Alcohol1 gramme (15 minims);
Ether $2\frac{1}{2}$ grammes (40 minims);
Elastic collodion.....5 grammes (75 minims).

M. For a lotion.

For warts, more caustic remedies may be used than for corns; nitric, acetic, hydrochloric, chromic acids, or the acid nitrate of mercury,

may be applied in drop doses daily till the wart falls off. The following is very active:

R Corrosive sublimate...25 centigrammes ($3\frac{3}{4}$ grains);
Elastic collodion.....10 grammes ($2\frac{1}{2}$ drachms).

M. Application for warts.

After a few days' treatment, the layers of collodion are removed by hot applications and if the wart does not come with them, the applications are renewed. Calcined magnesia has been recommended as an internal remedy, but probably is without specific action. Warts often disappear spontaneously.

Syphilis Treated Hypodermically.—Gailleton, in *Lyon Médical*, for November 8, 1903, after disparaging several solutions for the hypodermic administration of mercury, says that the following mixture of Gaucher's is painful only upon administration and that complications are much less likely to supervene than with calomel or oily solutions of the metal:

R Mercury benzoate.....1 gramme (15 grains);
Sodium chloride.....75 centigrammes ($11\frac{1}{4}$ grains);
Sterilized water.....100 grammes ($3\frac{1}{2}$ ounces).

M. Inject from 30 to 75 minims.

Disinfection of the Vagina.—*Presse médicale*, for November 11, 1903, says that surgical asepsis of the vagina is possible by Routier's method, which is to shave the mons veneris and, at the time of operation, to cover it with a damp cloth; to wash thoroughly the four culs-de-sac of the vagina and subsequently to remove the soap with an antiseptic solution through a narrow rubber tube. The labia minora are then separated and ether is allowed to run over the entire vaginal surface, followed by solutions of potassium permanganate and sodium bisulphite, and pure alcohol. Finally boiled water should be used, in order to prevent the burning sensation that some patients complain of when recovering from anæsthesia. The index and middle fingers only need be used to insure perfect contact of the liquids with all parts of the vagina.

Aneurysm Treated by Gelatin Enemata.—Dr. Borde, of Bordeaux, according to *Revue médico-pharmaceutique* for August 15, 1903, has had good results in aneurysm of the right subclavian with enemata of gelatin. The tepid enema is given at night, after the patient has retired. After twenty had been given in Dr. Borde's case, he noted that the crises of angina had disappeared, the thrill was lessened, and the aortic, systolic souffle was gone. Following is the formula:

R White gelatin.....2 grammes (30 grains);
Wine of opium.....5 drops;
Boiling water.....100 grammes ($3\frac{1}{2}$ ounces).

M. For an enema.

Hepatic Colic.—Henri Huchard in *Journal des praticiens*, for November 7, 1903, quotes H. Senac as stating he has found the following excellent for the relief of pain:

R Extract of belladonna } of each.....2 centigrammes
Extract of opium } ($\frac{1}{2}$ grain);
Cacao butter.....2 grammes (30 grains).

M. For one suppository, to be inserted every half hour for two hours.

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SMALLPOX IN PHILADELPHIA.

An epidemic of smallpox does not usually break upon a great city in its full force at the outset. It smoulders, first in one quarter and then in another; in all of them it may apparently be quelled, but it bursts forth anew, and the quarters in which it is manifest get to be more and more numerous and its recrudescences more and more frequent. The disease has given almost weekly evidence of its presence in Philadelphia for many months past, and within the last few weeks it has acquired a degree of prevalence that may well give rise to concern. The occurrence of this increased prevalence at the onset of winter is only what was to have been expected in view of its persistence during the summer, for whenever it lurks with us through the summer months it is tolerably sure to augment with the approach of cold weather. It is probably for more than one reason that it rages preeminently in winter. In the first place, if the contagious principle gains access to a house, it is more shut in in winter, and consequently acts with greater concentration on the inmates; in the second place, since the heat and moisture of summer are well known to be inimical to the preservation of energy in vaccine, we may well suppose that the

coming of winter tends equally to sustain the vitality of the smallpox virus, a virus analogous to that of vaccine, if, indeed, the two are not really modified forms of one and the same poison. All our great epidemics of smallpox have occurred in winter, or at least shown their greatest virulence in that season, and we do not think ourselves open to the reproach of pessimism if we express anxiety as to the probable ravages of the disease in Philadelphia during the winter that has now opened.

In addition to scrupulous isolation of the victims of the disease, there is, of course, but one thing to be done to check its progress, namely, the enforcement of vaccination to the full extent authorized by law. That the sanitary officials of the city are alive to this fact we do not doubt, and no more do we doubt that they will receive the support of the great mass of the family physicians. And doubtless the citizens at large have long before this recognized that last year's deplorable frequency of tetanus following vaccination in Camden was not really due to vaccination *per se*, but to a superadded infection. Those of them who do not yet realize this manifest truth can, we are sure, readily be made to do so by intelligent work on the part of the medical profession. We would urge our Philadelphia readers not to be backward in endeavors to induce their patients to submit to this certain preventive of a disease that, though at times it manifests a deceptive mildness, yet in the general run shows a malignancy seldom excelled by the diseases to which mankind is exposed.

EQUESTRIAN THERAPEUTICS.

Horseback riding is not only a necessity, but a convenience, comfort, pleasure, and, above all, the most health giving exercise one may indulge in. It is not a new thing. It is not a fad. Horse and man have been associated since time immemorial. Horseback riding was man's first mode of transportation. For pleasure, comfort, convenience, and health, it has never been improved upon. In the words of a famous surgeon, the late Frank Hamilton, "The best medicine for the inside of a man is the outside of a horse."

Horseback riding keeps you well when you think you are sick, and makes you well when you are really sick. In history, poetry, and romance horseback riding goes back to earliest antiquity. Alexander the Great and his riding horse occupy a permanent place in history. We shall never forget the famous words of King Richard the Third: "A horse! A horse! My kingdom for a horse!" It was not an automobile or a bicycle he wanted, but a faithful equine; something that could be depended upon.

Think of what equestrianism has been to our great generals! They accomplished some of their noblest deeds with the aid of the ever faithful horse. Remember the famous rides of Putnam, Paul Revere, and Sheridan, the pony express of Buffalo Bill, the romantic story of Young Lochinvar! We could go on ad infinitum with historical references to horseback riding. Equestrianism must not be relegated to the past arts by the innovation of more modern mechanical contrivances of transportation.

Equestrianism as a therapeutic agent has many indications, not only for those who enjoy good health, but for those that are suffering from chronic disturbances. It is especially indicated in so called torpid liver, chronic functional disturbances of various kinds, and pulmonary and nervous troubles. It is indicated in that form of indigestion known as nervous dyspepsia, and in this condition has wrought many a cure.

The great good derived from horseback riding is due to the beneficial effect it has upon the circulation. Many people are chronic invalids because of poor circulation, producing congestion of various vital organs. Horseback riding in the open air when the weather permits, in a well ventilated arena at other times, is an exercise that cannot be surpassed as a health giving and health maintaining treatment. I have had sufficient observation in this direction to convince me of the wonderful efficacy of the horseback riding treatment in many conditions, so that I often prescribe it in preference to many of the other so called physical culture health promoters. Often I have seen weak, delicate, anæmic girls develop a robust, healthy constitution, the result of properly conducted equestrianism.

Horseback riding is the ideal form of physical culture for the youth and young man. It not only develops the physical man, but it has a high moral

tendency; the two factors in the economy of man that go further to promote health, wealth, and happiness than anything else. Can one imagine a more health giving, joy inspiring exercise than a morning ride mounted on a well trained horse; a dash through the park, a trip into the country, with ever changing scene, inhaling pure air; attention directed sufficiently to the horse to give one a sense of responsibility? Such an exercise stimulates a healthy circulation, promotes an abundance of pulmonary oxidation, clears the brain, encourages a normal appetite, drives dull care away, and, with all, makes the rider feel that, after all, life is worth living.

Although horseback riding is a natural inherited tendency, it is like many other natural desires and tendencies in that it requires education and training to become an accomplishment, so that its beneficial effects can be fully realized. The natural artist, the natural musician require instruction from the masters. It is not sufficient that a man should be able to stick to the bucking bronco to be an accomplished equestrian. To be accomplished and receive the full benefits to be derived, one should be taught how to mount, how to poise, how to change the gait. This last is very essential. Holding to one gait is often tiresome, and the rider fails to accomplish the purpose desired. A well educated rider is never at a loss to know how to act in case of accident. He cannot be surprised, and he therefore avoids the accident which may befall the untrained. The educated rider acquires a grace, elegance, and refinement that not only are beautifully artistic, but promote a healthy constitution that fortifies the physical economy against many of the ills that flesh is heir to.

Often have I seen the business man at the close of the day, fatigued physically and mentally, his head aching, due to cerebral congestion, worrying over complicated problems that he will carry to his sleepless bed, having but one thought, and that being his troubles of the morrow. Under such conditions I advise horseback riding. Go into the park. Make a dash into the country. On your return, a bath, a cold shower, a rub down. By so doing you will feel refreshed, enjoy your dinner, sleep well, and on the morrow be better prepared to attend to your duties. This prescription accomplishes in a natural way and more effectively than the temporarily stim-

ulating high ball, the dose of liver medicine, and the sleeping powder, the purpose for which it is intended. The nearer to the heart of Nature man lives, the longer and better will he live, and the better will he enjoy his existence. Equestrianism is one of man's natural inherent tendencies, and should not be supplanted by any of the more modern mechanical forms of exercise. Horseback riding must not be abused. It must be regulated and indulged in systematically, and the rider, to receive the great benefits possible from this exercise, must be trained, even to detail.

Most modern society women drive too much and ride too little. The nervous strain resulting from social functions has a tendency to lower the normal physical standard. Late hours are often followed by prolonged hours in bed the next day. The woman gets up unrefreshed after unsuccessful attempts to sleep during the forenoon. What would be better than remaining in bed would be to get up and take a horseback ride, which would refresh and stimulate both mind and body.

There is nothing that so develops the beauty of women as horseback riding. It not only develops beauty of form and complexion, but maintains it. Aside from the beauty of face and form which attracts, equestrianism develops a beauty of character which makes friends and an ability to hold them. It is universally admitted that American women are the most beautiful. And the most beautiful American women are the equestrians. Who has not seen or heard of the sweet Kentucky belle, with her Venuslike figure, bright, laughing eyes, a beautiful complexion that would put the damask rose to shame; a pose, a grace, artistic lines that are beyond the poet to describe or the artist to reproduce? This beauty of face, form, and character is the inherited and acquired result of equestrianism.

If our mothers and maidens more fully appreciated the benefits to be derived from horseback riding, I am sure they would indulge in it to a much greater extent. There is no tonic equal to the clear, bright sunshine, the pure, refreshing air; and the best way to obtain that is on the back of the horse, where the rider gets the benefit not only of God's natural elements, but an exhilarating exercise that is healthful, stimulating, and a permanent tonic.

EDWARD WALLACE LEE.

"A DOG'S TALE"

What is our old friend Mark Twain about? His latest production, *A Dog's Tale*, in the December *Harper's*, is eminently suggestive of those thrilling narratives with catchy headings, in the daily papers, that one reads with more or less interest, only to discover at last that one has been gently led up to an advertisement. *A Dog's Tale* is a would-be pathetic story, showing how an abnormally priggish dog, which had saved its "scientist" master's child from fire, innocently looked on at an experiment by its "grateful" master on its own little puppy, the object of which experiment was to prove to a crowd of admiring colleagues that "a certain injury of the brain would produce blindness"—which it did, and death, too. In short, we have been tricked into reading an antivivisection essay. From the illustration accompanying the article the experiment apparently consisted in the impossible feat of holding the puppy in the experimenter's left hand by its left shoulder only, and with the right hand digging a penholder or a pencil through the skull somewhere in the region of its right ear. As for the dog's reflections, both before and after the experiment, they lack verisimilitude. Kipling can bring us face to face with the "human nature" of a camel or a bear, an elephant or a soldier's charger,—nay, even with that of a steamship or a locomotive—but we must frankly own that, in this instance, at least, Mark Twain cannot.

We have said it was a "would-be" pathetic story, advisedly; for it is eminently conceivable that a forceful dramatist or novelist could compel our emotional sympathy, even though he failed to convince our intelligence, on this subject. But, to do so, he must first impress us by his evident knowledge of that whereof he speaks. Mark Twain does not. He only succeeds in recalling to us the story of the young art student who took his father to an art exhibition. To the son's disappointment, the father failed to be impressed; in short, he was distinctly bored. At length the son piloted him to the exhibit of a celebrated animal painter, around which a crowd was gathered in ecstasies of admiration over its technical skill in the lifelike presentment of cattle in a field. "Surely," thought the devotee, "that will impress him. He will *feel* in this the wondrous meaning of art." But to his unutterable chagrin, his father only laughed, and said: "Well, I'm durned if the blamed fool ain't made that cow a getting up fore feet fust, like a horse."

THE DEATH OF HERBERT SPENCER.

The death of Herbert Spencer removes the last of the great original thinkers of the Victorian era, and this loss will be felt nowhere so much as in the scientific world of America, where he received his first and widest recognition. While medicine owes but little directly to Spencer's work in biology, it owes much to his system of philosophy. It is for his influence upon the workers in medicine, rather than for his contributions to the sciences allied to medicine, that Herbert Spencer will be chiefly remembered. Spencer resembles Haeckel in this, that the profound influence of Spencer's thought, rather than of his work, in biology is shown in the very onomatology of the science; and the concepts which were first announced by him have come to be so well recognized as basic facts in science that it is only by comparing the attitude, at the present time, of the scientific world toward the doctrine of evolution and the influence of environment upon it with its attitude when these doctrines were first promulgated by Spencer, that we can come to a clear understanding of the debt which medicine, in common with the other biological sciences, owes to Herbert Spencer.

THE PROPOSED POST CHECK CURRENCY.

Mr. Gardner, of Michigan, has introduced into Congress a bill "to prevent robbing the mail, to provide a safer and easier method of sending money by mail, and to increase the postal revenues." It provides that after its becoming a law all paper currency of the denominations of one dollar, two dollars, and five dollars, except national bank notes, shall be of the form to be known as post check notes, or currency, with facilities for the holder's making it payable to a named payee. It is not within our province to comment on the economic features of this proposed legislation, but we do say most emphatically that its enactment would result in giving us something that has long been a crying need—a clean currency—for no bill would be reissued after it had been paid. We hope therefore that the bill will pass.

THE EVER PRESENT TYPHOID FEVER.

Though the mortality rate of typhoid fever is probably now much less than it was forty or fifty years ago, owing to more enlightened methods of treatment, the aggregate mortality is still fearfully great, for with our growing population, and with the consequent increase of water pollution, the number of outbreaks is ever growing larger. The latest notable instance that has been brought to general attention is that occurring in the city

of Butler, Pennsylvania. It is reported that in that community, having a population of some 12,000, there are now over 1,200 cases of the disease—that is to say, ten per cent. of the inhabitants are affected. A relief committee has been formed, and subscriptions to the committee's fund are relied on to give relief to the stricken families. We learn that the sum of \$17,000 has been received by subscription, and that the first week's expenditure was \$7,000. This speaks well for the generosity of the subscribers, but how much better would it have been to employ the "ounce of prevention!" The water supplied to the city is said to be undergoing analysis; far better would it be to abandon its use without waiting for analysis, for nothing is more firmly established in medicine than that typhoid fever is in an overwhelming majority of instances caused by infection of the drinking water. Is the lesson of Ithaca so soon to be forgotten?

AGAIN THE DOCTOR IN GENERAL LITERATURE.

A novel and dainty book has lately been produced by Dr. Edward Curtis.¹ A left-hand page gives a monthly calendar for fifteen years, beginning with the year 1901, and on the page facing this are verses appropriate to the month. Dr. Curtis is no mean versifier, and in one instance he has broken out into song. June is the month that he has celebrated in music. The book, a quarto, is a good specimen of that exquisite work for which the Grafton Press is getting to be noted.

"THE MOST UNKINDEST CUT OF ALL."

We learn from the *British Medical Journal*, for November 28th, that Dr. Bayliss has announced his intention of devoting to the cause of physiological research, the \$10,000 damages awarded to him in his libel suit against Mr. Coleridge. Mr. Coleridge will thus find himself of those who "do good unwillingly, with heart of lead."

Obituary.

WILLIAM SHAW STEWART, M. D.,
OF PHILADELPHIA.

Dr. Stewart died rather suddenly on November 25th at the age of sixty-five. He was a native of Pennsylvania, having been born near Pittsburgh. He received his medical education in the Jefferson Medical College, graduating in 1863. He served as a medical officer of the army through the civil war, and then established himself in practice in Philadelphia. He achieved distinction in obstetrics and gynecology, and for several years taught those branches in the Medicochirurgical College, of which he was one of the founders.

¹ *Months and Moods*. A fifteen year calendar. Versified and diversified. By EDWARD CURTIS. New York: The Grafton Press.

News Items.

Society Meetings for the Coming Week:

MONDAY, December 14th.—New York Academy of Medicine (Section in General Surgery); New York Academy of Sciences (Section in Chemistry and Technology); New York Medico-historical Society (private); New York Ophthalmological Society (private); Gynecological Society of Boston; Burlington, Vt., Medical and Surgical Club; Norwalk, Conn., Medical Society (private); Medical Association of the Greater City of New York; Society of Medical Jurisprudence.

TUESDAY, December 15th.—New York Academy of Medicine (Section in General Medicine); Buffalo Academy of Medicine (Section in Pathology); Ogdensburg, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Medical Society of the County of Kings, N. Y.; Baltimore Academy of Medicine.

WEDNESDAY, December 16th.—Woman's Medical Association (New York Academy of Medicine); Medico-legal Society, New York; Northwestern Medical and Surgical Society of New York (private); New Jersey Academy of Medicine (Newark); New York Society of Dermatology and Genitourinary Surgery (private); New York Academy of Medicine (Section in Genitourinary Diseases).

THURSDAY, December 17th.—New York Academy of Medicine; Brooklyn Surgical Society; New Bedford, Mass., Society for Medical Improvement (private); Medical Society of City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

FRIDAY, December 18th.—New York Academy of Medicine (Section in Orthopaedic Surgery); Clinical Society of the New York Post-graduate Medical School and Hospital; Baltimore Clinical Society; Chicago Gynecological Society; Manhattan Medical and Surgical Society (private).

Change of Address.—Dr. E. D. Lederman, to 1318 Madison Avenue.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending December 5, 1903:

	Week end'g Dec. 5.		Week end'g Nov. 28.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	326	6	267	8
Diphtheria and croup	408	68	406	36
Scarlet fever	211	19	161	13
Smallpox	1	1	0	0
Chickenpox	104	0	98	0
Tuberculosis	306	163	257	162
Typhoid fever	68	12	74	17
Cerebrospinal meningitis	..	3	0	3
Totals	1,424	272	1,263	239

Appointments at Skin and Cancer Hospital.

At the annual meeting of the board of governors of the New York Skin and Cancer Hospital, the following appointments were made: Dr. Willy Meyer, consulting surgeon; Dr. Franz J. A. Torek and Dr. William Seaman Bainbridge, attending surgeons.

Appointments by Governor Odell.—On November 23rd, Governor Odell made the following appointments: Dr. George A. Smith, superintendent of the Manhattan State Hospital; Dr. Charles G. Wagner, superintendent of the Binghampton State Hospital, and Dr. D. H. Arthur, of the Gowanda State Hospital, to be a committee to inquire into the sanity of William B. Ennis, who is under sentence of death for the murder of his wife in Brooklyn.

The Albany Medical College united with the Albany Law School and Union College for the first time as a faculty of the latter at the recent banquet at the Hotel Manhattan.

The Royal Arcanum Hospital Bed Fund Association of Kings County has a fund of \$4,140.65 at its disposal as a result of a celebration day by members of the society at Coney Island during the summer.

The Presbyterian Hospital celebrated the thirty-fifth anniversary of its founding on December 6th. There is a deficit in the institution's accounts of \$58,540.88, although it has not been allowed to interfere with the work.

The One Hundred Hospitals and their 12,000 beds in New York city are not sufficient for the accommodation of alcohol and other drug habitués and for contagious cases, although an appropriation of \$1,175,000 was obtained from the health department last year to build quarters for the latter class of patients.

The Lying-In Hospital, of New York, during the month of November, had 375 applicants for admission of whom 120 were taken into the wards. Ninety-six children were born. Of 219 applicants for outdoor relief, 203 were cared for in their own homes and received 734 visits. Through the ladies' auxiliary, 745 garments were distributed, 128 families relieved by caretakers who took charge during the illness of the mothers, 548 visits being made altogether, and quantities of tea, coffee, oatmeal, sugar, bread, and milk were given to the destitute.

The First General Convention to Consider Mosquito Extermination will be held, by invitation, in the rooms of the Board of Trade and Transportation, Mail and Express Building, Broadway and Fulton Street, New York city, on Wednesday, December 16, 1903, at 2.30 o'clock. As governor of the first State to take State action, the Honorable Franklin Murphy, of New Jersey, has been invited to preside, and among the vice-presidents are Mr. William C. Whitney; Mr. Robert W. de Forest; Judge Howard J. Curtis, of Bridgeport, Conn.; Dr. Alvah H. Doty, health officer of the port of New York; Professor Nathaniel S. Shaler, of Harvard University; Mr. Louis C. Tiffany; Mr. Otto H. Kahn, Mr. G. Waldo Smith. Addresses and papers are expected from these among others: Dr. L. O. Howard, of Washington; President E. J. Lederle, Ph. D., Mr. John Clafin, Commissioner J. M. Woodbury, Mr. Paul D. Cravath, Mr. Spencer Miller, of South Orange, N. J.; Dr. E. P. Felt, New York State Entomologist, of Albany; Dr. William N. Berkeley, Mr. Frederick C. Beach, of Stratford, Conn.; Mr. William J. Matheson, Mr. Walter C. Kerr, Dr. John B. Smith, of New Jersey; Mr. William H. Baldwin, Jr., Henry Clay Weeks, Professor Milton Whitney, of Washington, D. C. The range of topics involves all subjects allied to the extermination of the mosquito: public health, engineering, entomology, scenic improvement, agriculture, public comfort, realty improvement, etc., and all societies or individuals interested in these topics are invited to be present. A national association may be formed.

The Medical Association of the Greater City of New York.—A stated meeting of this association will be held at the New York Academy of Medicine, on Monday, December 14, 1903, at 8.30 p. m. Order of Exercises: Report of the Committee on the Death of Dr. David Franklin, Samuel M. Brickner, M. D., chairman; Report of the Committee on the Death of Dr. Jean F. Chauveau, A. B. Judson, M. D., chairman; Report of the Committee on the Death of Dr. Davidson H. Smith, J. Blake White, M. D., chairman; Water Anæsthesia in Operations About the Rectum, Anus, and Buttocks, by Dr. Samuel G. Gant; The Puerpera. Her Care and Comfort During Convalescence, by Dr. A. Ernest Gallant.

The New York Academy of Medicine, 17 West Forty-third Street.—A stated meeting will be held in Hosack Hall, Thursday evening, December 17, 1903. Order: I. Election of Officers. II. Action on Proposed Amendment to Constitution and By-laws. III. Papers: (a) When and How Shall we Operate for the Relief of Symptoms Due to Senile Hypertrophy of the Prostate, by Dr. Paul Thorndike, of Boston; (b) The Best Method of Operating to Effect a Radical Cure of Senile Hypertrophy of the Prostate Gland, Based on the Study of 141 Radical Operations, by Dr. Orville Howitz, of Philadelphia. Discussions by Dr. L. Bolton Bangs, Dr. Willy Meyer, Dr. Charles H. Chetwood, Dr. Hugh H. Young, of Baltimore, Dr. George E. Brewer, Dr. Ramon Guiteras, Dr. Alexander B. Johnson, Dr. Howard Lilienthal, and Dr. Parker Syms.

PHILADELPHIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

	Week end'g Nov. 28.		Week end'g Dec. 5.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	70	11	99	15
Diphtheria	82	14	93	14
Scarlet fever	90	2	126	7
Typhoid fever	84	9	91	10
Consumption		61		62
Cerebrospinal fever	0	0		

Dr. Holland and Dr. Laws, successors to Dr. Jelks and Dr. Holland, have notified the profession that Dr. William V. Laws, late of Philadelphia, has moved to Hot Springs, Ark., and become associated with them in practice.

The Germantown Hospital, Philadelphia, Pa., graduated from its training school on November 28th, the following young women: Abbie A. Hocklander, Mattie D. Hullett, Gertrude E. Wise, Ethel F. Cook, Jeanette G. Cupitt, Lillian V. Proctor, Agnes L. Reilly, Myra L. Sorgensson, and Mary G. O'Donnell.

The Medico-Chirurgical Society of Philadelphia was organized at the Medico-Chirurgical College on October 23, 1903. It is open to physicians in good and regular standing. The following officers were elected: President, Dr. Joseph A. Cramp; first vice-president, Dr. J. A. Krug; second vice-president, Dr. Charles H. Gubbins; secretary, Dr. Stillwell C. Burns; assistant secretary, Dr. Charles B. Reynolds; treasurer, Dr. J. R. Knight; censors, Dr. George W. Pfromm, Dr. W. Hershey Thomas, Dr. John A. McKenna, Dr. E. A. Cruieger, Dr. S. Leon Gans.

Philadelphia County Medical Society.—A stated meeting of the society was held at the College of Physicians on December 9th. The following papers were read: Dr. T. L. Coley, Diet in Enteric Fever; Dr. Barton C. Hirst, Practical Lessons from an Experience of More than One Hundred Cases of Eclampsia; Dr. G. Morton Illman, Report of a Case of Hydrophobia with Autopsy. Discussion by Dr. Samuel Wolfe, Dr. M. P. Ravenel, and Dr. D. J. McCarthy; Dr. Alfred Gordon, Myxœdema Complicated by Diabetes. Discussion by Dr. James Tyson, Dr. J. C. Wilson, and Dr. S. Solis-Cohen. The north branch of the same society held its meeting on December 10th. Dr. Charles P. Noble read a paper, detailing his observations upon Gastric, Intestinal, and Liver Surgery in the German Cities. Dr. F. Hurst Maier read a paper entitled A Plea for the Earlier Diagnosis of Uterine Cancer, ostensibly directed especially to the general practitioner to whose care such cases are generally at first entrusted, and laid particular stress upon the reduction of the mortality which could ensue, if such cases were radically examined, diagnosticated, and treated without delay, basing his remarks and statistics upon a carefully compiled series of observations taken from foreign, American, and his own cases. The Kensington branch of the society held its meeting on December 8th, the two principal papers being devoted to vaccination, and entitled as follows: Vaccination and Its Discoverer; a historical paper, by Dr. T. R. Currie; Remarks on Modern Vaccination, by Dr. J. A. Krug.

Ninety-nine Fresh Cases of Smallpox in Philadelphia.—Ninety-nine new cases, and fifteen deaths from smallpox constitutes the report of the week ending December 5th. It is not uncommon now to find several sufferers in one house, or several infected adjoining dwellings. The following directions have been issued to the corps of vaccine physicians, in order to insure thoroughness in vaccination: In order that operation of vaccination may be performed in a thorough aseptic manner, the following instructions emanating from the bureau of health must be strictly complied with. Every vaccination should be preceded by a preliminary cleansing, accomplished by means of green soap, alcohol, and sterile water. The abrasion shall be made by means of a scarifier or lancet, which must be sterilized before and after each vaccination by flaming with alcohol. The abrasion must not cause more than punctiform hæmorrhage. When properly performed there should be no blood. Virus must be thoroughly incorporated with blade of lancet or with sterile glass rod. When sufficient time cannot be given for arm to dry a piece of clean wax paper should be applied to the abrasion, and secured by strip of zinc oxide adhesive plaster. All cases of vaccination shall be seen in the second week and the date of the second visit must be incorporated in the report, together with statement as to whether vaccination was successful or unsuccessful—a failure to make report of the second visit relieving the city from all pecuniary obligations. Unsuccessful vaccinations must be repeated.

College of Physicians of Philadelphia; Section on Ophthalmology.—Meeting held November 18, 1903, Dr. Samuel D. Risley, chairman, presiding. Dr. William Zentmayer exhibited a case of Persistent Hyaloid Artery as a blood bearing vessel. Dr. G. E. de Schweinitz exhibited a patient with the Ciliary Processes Visible in the Pupillary Area. Bilateral iridectomy had been performed for the relief of chronic iritis followed by needling of the left lens, and the ciliary processes through the entire upper portion of the coloboma were distinctly visible and, extending from the partially absorbed lens to the points of the processes, the delicate fibres of the zonula could be traced. Dr. Charles A. Oliver read a clinical history of a Case of Right Pulsating Exophthalmos, which, after ligation of both the right common carotid artery and the left internal carotid artery, was almost immediately cured. Protargol-Argyrosis of the Conjunctiva. Dr. G. E. de Schweinitz, after referring to a paper recently published on the treatment of trachoma, in which it was stated that two per cent. solutions of protargol could be safely entrusted to patients because they did not produce the disagreeable stainings attendant upon the use of some of the salts of silver, questioned the wisdom of this publication, because protargol was capable of rapidly, it would seem in some instances more rapidly than nitrate of silver, producing argyrosis. Dr. G. E. de Schweinitz read a paper on Certain Untoward Results of Tenotomies for Anomalies of Ocular Motility, and discussed the subject under the following heads: Overcorrections resulting in manifest deviations; insuperable diplopia; limitations in the ocular rotations; the development of phorias not originally existing; and painful cicatrices. Cases were given in illustration and the remedies, operative and otherwise, employed to bring about relief, were described. Is Double Operation for Senile Cataracts Justifiable? Dr. H. F. Hansell answers this question in the affirmative under certain conditions. Contraindications are the danger of infection during or after operation, the presence of lacrymal disease, constitutional weakness from nephritis, diabetes, syphilis, or other dyscrasia, hæmophilia, or other idiosyncrasy and the patient's unwillingness.

GENERAL

The New Cincinnati, O., Medical Journal will endeavor, as a preliminary step, to secure the paper, plant, and good will of the *Lancet-Clinic*.

The Jewish Free Hospital, of Louisville, Ky., will lay the cornerstone of its new building at the corner of Floyd and Kentucky Streets on the afternoon of Sunday, December 13th.

The Medical School of the University of Vermont was burned on December 2nd, the loss being estimated at \$20,000. The building was the gift, nearly twenty years ago, of the late John B. Howard.

Amygdalitis and Mumps Have Broken Out at Annapolis, results, it is thought, of the recent exposure of the students at the football game in Philadelphia. There are fifteen cases of the former and twenty of the latter disease.

Port Huron, Mich., is to have a \$25,000 hospital, and has already collected \$10,000 of the amount.

The Rochester, N. Y., City Hospital collected on its forty-first annual donation day, December 4th, over \$8,500.

The Wisconsin College of Physicians and Surgeons has filed an application permitting it to increase its capital stock from \$45,000 to \$100,000.

The New Potrero Hospital, of San Francisco, Cal., has appointed Dr. G. L. Painter surgeon to the institution at a salary of \$100.00 a month.

The American Association of Obstetricians and Gynecologists have, it is said, accepted the invitation of President Francis to meet in St. Louis, Mo., on September 13, 14, and 15, 1904.

The Saturday and Sunday Hospital Association, of St. Louis, Mo., on November 28th collected \$11,298.67 for the hospitals of that city, from office buildings, theatres, and hotels.

The Cook County Hospital, of Chicago, Ill., has appointed Dr. John B. Colwell assistant warden; he passed the best civil service examination recently among several candidates.

The Board of Health, of Newport, Ky., on November 21st, appointed Dr. Crowley chairman of the board, and reelected Mr. Alfred Cornish as secretary.

The Hartford, Conn., Board of Health has appointed Dr. Alfred M. Rowley as medical inspector to succeed Dr. Charles S. Stern, resigned. There were twenty applicants for the position.

The Cleveland, O., Board of Health has appointed the following physicians to the six town districts: Dr. M. Budwig, Dr. C. E. White, Dr. E. A. Smith, Dr. A. J. Simpson, Dr. P. J. Byrne, and Dr. S. McClain.

St. Luke's Hospital, of Chicago, Ill., is to be enlarged by a building of steel, six stories in height, forty by 161 feet in area, to cost in the neighborhood of \$300,000. Subscriptions may be sent to Mr. Charles W. Brega.

The Presbyterian Hospital, of Pittsburgh and Allegheny, Pa., has purchased a site for a new building at Sherman and Montgomery Avenues, Allegheny, for \$45,000; the building is to cost \$50,000.

In Springfield, O., it has been decided by Health Officer H. H. Seys that hereafter all lead and slate pencils used by the school children of that town, must be disinfected daily. The city has already appropriated \$100.00 for the purpose.

An Army Post Hospital is to be erected at Fort McDowell in accordance with plans prepared by the Surgeon-General; a brick building, consisting of two stories, basement, and attic, forty-four by forty-four by twenty-seven feet, is the specification.

Consolidation of Medical Libraries.—The medical department of the public library of Cincinnati, O., and the medical library of the City Hospital were consolidated on November 20th, forming one of the largest medical libraries in the United States.

The Buffalo Eye and Ear Infirmary and the Charity Eye, Ear, and Throat Hospital, of Erie county, have asked each for \$1,850 to help meet expenses for the coming year.

The Curator of the City Hospital, of Cincinnati, O., Dr. Alfred Friedlander, has resigned, and the board of medical directors have elected Dr. William Muhlberg to succeed him.

The Mount Sinai Hospital at 17 Staniford Street, Boston, opened a new building on November 22nd, a roomy and modern structure of five stories and basement. The hospital is conducted under Jewish auspices.

A New Catholic Hospital will shortly be erected in Chicago, Ill., by the hospital sisters of St. Joseph de Ville Marie, of Montreal, Canada, a site having been selected at Sixty-fourth Street and Harvard Avenue. Sister Hopkins will be the superior.

The Boston Floating Hospital has received subscriptions to the amount of \$5,895 for its work next year. A sale was held on November 27th at the residence of Mrs. M. N. Smith, of 51 Babcock Street, Brookline, which realized a goodly sum for this excellent charity.

An Italian Hospital in San Francisco, Cal., is to be opened shortly by the Emiliani Mutual Benefit Society in the old Toland College building at North Beach. This building, four stories in height, will have two stories added to it. William Marconi has accepted the honorary presidency of the society.

The Wisconsin College of Physicians and Surgeons, of Milwaukee, will soon erect a \$50,000 addition to their present buildings at Fourth Street and Reservoir Avenue. The addition will be of red brick, five stories in height, with a frontage of eighty-five feet, and will include a dispensary, a clinical lecture room, a dental infirmary and laboratory, a library and reading room, and five lecture and recitation rooms.

The Massachusetts State Board of Registration in Medicine announce that the following gentlemen have passed successfully their examination held on November 10th and 11th, and are therefore entitled to practise medicine in Massachusetts: Wellington W. Jones, Luke M. Holmes, J. E. Stevens, A. T. Schaefer, J. H. Gallagher, Esther K. Solakian, F. A. Fearney, E. M. Murphy, R. J. Shannahan, Martin Sullivan, G. E. Lentino, J. C. Pierson, J. H. Johnson, O. R. Fountain, A. W. Atwood, F. DeMarco, W. O. Lord, P. N. Bergeron, Karolina S. Eskolin, N. L. Greenfield, Mabel F. Austin, E. J. Shohan, J. A. D. Jaques, W. J. McGurn, Phoebe A. Ferris, W. Williams, C. S. Adams, W. H. Walker, H. W. Ward, Lucinda A. Marsh, T. W. Thorndike, J. P. Parlow, F. E. Philips, D. R. Reardon, H. M. Larrabee, P. H. Mangan, G. F. Whippley, C. H. Leverton, L. J. Deroin, Alice S. Woodman, T. F. Davies, E. J. Hussey, Mary W. Walker, Edmund J. McNeil, W. R. Munger, Ruby M. Williams, F. R. Burke, N. H. Gifford, F. P. Webster, H. W. Ayres, W. F. Blair, J. B. Bain, Mary J. Montgomery, E. E. Boyn, M. F. Barrett, and H. B. Horton.

Statement of Mortality in Chicago, Ill., for the Week Ending December 5, 1903, compared with the preceding week, and with the corresponding week of 1902. Death rates computed on estimated mid-year populations of 1,885,000 for 1903, and of 1,820,000 for 1902:

	Dec. 5, 1903.	Nov. 28, 1903.	Dec. 6, 1902.
Total deaths, all causes.....	478	512	528
Principal causes of death:			
Acute intestinal diseases.....	21	19	37
Apoplexy.....	16	14	12
Bright's disease.....	30	38	24
Bronchitis.....	17	11	22
Consumption.....	46	50	45
Cancer.....	26	10	19
Convulsions.....	18	9	14
Diphtheria.....	13	19	14
Heart diseases.....	43	32	42
Influenza.....	1	1	0
Measles.....	0	0	2
Nervous diseases.....	29	32	33
Pneumonia.....	77	94	65
Scarlet fever.....	1	9	2
Suicide.....	10	12	13
Typhoid fever.....	10	17	20
Violence (other than suicide).....	23	38	31
Whooping cough.....	1	0	9

The week's mortality was unusually low for the season of the year; compared with that of a year ago it shows a 12.5 per cent. decrease in proportion to population. The causes of death showing the most marked decrease are Bright's disease, consumption, pneumonia, scarlet fever, and typhoid fever. The acute infectious diseases all show a reduction in the number of deaths and in the number of cases reported.

Only two cases of smallpox were discovered during the week; one a child of four years, the other an adult of 43; neither ever vaccinated.

The Typhoid Fever Situation in Butler, Pa.—

The introduction of more systematic supervision of the typhoid fever epidemic in Butler, Pa., now permits of a conservative estimate of the existing conditions. At a meeting of the executive committee held on December 6th the first report of the auditing committee was presented. It shows that there are about 1,200 cases in the borough on that date, with more than 200 families receiving aid. One hundred and twenty-five trained nurses are on the pay roll of the relief committee, and there is an equal number at work in the town, being paid by private families. The amount of subscriptions received is more than \$17,000, and the first week's expenditures were almost \$7,000. The city water is being tested and its exact condition will soon be known. On December 7th the authorities issued an order which will greatly lessen the danger of typhoid fever in Butler, and which will to a great extent protect the towns in the valleys below Butler. No milkman will be allowed to furnish milk to his customers in any receptacle, except in one furnished by the consumer. Milk dealers must sterilize their cans before they are returned to the places where the milk was bought. Water is being boiled before it is used, and systematic sanitary precautions are being daily introduced. Dr. M. S. French, who is in charge of the Philadelphia relief corps of physicians and nurses, reports considerable progress. Temporary hospitals are being erected, and if the present supervision continues, it is hoped that the epidemic will be stamped out within a reasonably short time.

Pith of Current Literature.

MUENCHENER MEDIZINISCHE WOCHENSCHRIFT.

November 3, 1903.

1. *Ætiology of Pancreatic and Fat Tissue Necrosis*,
By O. HESS.
2. *Tearing Away of the Vagina and of the Pelvic Floor as Causes of Genital Prolapse*,
By SCHATZ.
3. *Treatment of Recent Perineal Lacerations*,
By K. HEGAR.
4. *Immunization with Ovarian Tissue*,
By K. SKROBANSKY.
5. *Causes of Turbidity in Chylous Ascites*,
By J. JOACHIM.
6. *Fracture of the Scaphoid Bone*,
By E. PAGENSTECHER.
7. *A Stool Sieve*,
By P. SCHILLING.
8. *Electric Conductivity of Body Fluids*,
By A. BICKEL.
9. *Myasthenia Gravis Pseudoparalytica*,
By J. HEY.

1. Fatty Necrosis.—Hess has succeeded experimentally in producing in dogs extensive necrosis of the pancreas, with hæmorrhages and fat necrosis of the mesentery and omentum, by injecting into the pancreatic duct oil, oleic acids and soaps. The pathological picture was that of a typical apoplexy of the pancreas. Hess discusses the question of the possibility of the cause of death in these cases being soap-poisoning, since soap can be absorbed.

2. Causes of Genital Prolapse.—Schatz says that often through too strong pressure of the abdominal walls or through too early an application of the forceps, the vagina is torn away from the pelvic fascia. If the pelvic floor is simultaneously dislodged from its muscular attachments, the vagina loses all support and becomes prolapsed, although this may not appear until after the next confinement. Schatz treats cases in which he fears this accident, prophylactically by incision the perinæum deeply and the vaginal wall laterally, mainly on the left side.

3. Perineal Tears.—Hegar says that all recent lacerations of the perinæum should be repaired, in which it is seen that, unless the operation is performed, there will result an insufficiency of the vagina or the pelvic floor. The operation is not indicated, however, unless it is reasonably certain that primary union can be secured and the general condition of the patient is good. In most cases, the laceration will heal without suturing or can be undertaken after the puerperium is ended with better result as a secondary operation.

4. Ovarian Immunization.—Skrobansky finds experimentally that the serum of animals inoculated with ovarian substance exercises no spermatolytic influence upon the spermatozooids of the same species. In one instance, a decided cystotoxic effect upon the ovaries of the animal was observed.

5. Ascitic Fluid.—Joachim says, as a result of his investigations, that there are milky forms of ascites, in which the turbidity may be assigned to the presence of a globulin which is in close connection with lecithin, without any free lecithin being demonstrable. These ascitic fluids contain no fats. In the case reported, a pseudoglobulin

was found closely combined with lecithin. The turbidity was probably due to the elements of the pseudoglobulin which are insoluble in water.

6. Fracture of the Scaphoid Bone.—Pagenstecher reports a case of fracture of the scaphoid bone in which the resulting pseudoarthrosis gave rise to so much pain that a resection and removal of the fractured bone became necessary. The author advises x ray examinations in all fractures of the radius, especially if they are atypical in character.

DEUTSCHE MEDIZINISCHE WOCHENSCHRIFT

November 5, 1903.

1. *Physical Diagnosis of Renal Efficiency*,
By HANS KÖPPE.
2. *Diabetes Mellitus and Its Relation to Tuberculosis and Arteriosclerosis*,
By W. CRONER.
3. *Syphilis and Renal Surgery*,
By M. VON MARGULIES.
4. *Ophthalmia Neonatorum and the Gonococcus*,
By F. SCHANZ.
5. *Cystoscopic Changes in Uterine Cancer (Conclusion)*,
By W. HIRT, and R. STICKER.
6. *A Case of Traumatic Tuberculosis of the Lungs*,
By E. GEBAUER.

1. Renal Activity.—Köppe says that the molecular concentration of the urine, its osmotic pressure and the lowering of its freezing point are dependent upon (1) the blood pressure which determines the quantity of urine excreted; (2) upon the activity of the kidney in diluting the urine, this function being dependent upon the walls of the glomeruli; (3) upon the power of the kidney to secrete concentrated urine, hypothetically dependent upon the renal epithelium and its vacuoles. In determining the failure of any of these elements to be normal, numerous determinations of the freezing point of the urine must be made under the most varying conditions; and only when the urine of each kidney is separately secured will one cryoscopic examination suffice.

2. Diabetes, Tuberculosis, and Arteriosclerosis.—Croner has carefully studied 100 cases of diabetes and finds that heredity could be definitely established only nine times. Tuberculosis was found in connection with the diseased person or his relatives forty-seven times. Arteriosclerosis was noted thirty-two times in patients without tuberculous taint. Croner thinks that the absence of a common protective substance or the presence of some toxic element accounts for the tendency of diabetic patients to acquire tuberculosis.

3. Syphilis and Renal Surgery.—Von Margulies reports a case of renal syphilis, in which uranalysis showed nephritis of the left kidney which was enlarged and which was not properly functioning. The patient was in a prolonged febrile condition which was one of the indications for operation. When the kidney was reached, it was seen to be syphilitic. A cure was obtained by an energetic mercurial treatment.

4. Ophthalmic Neonatorum.—Schanz says that while the gonococcus is regarded as the sole evoking agent of gonorrhœa, it is not the sole ætiological factor in ophthalmia of the newborn. The so-called pseudogonococcus has been alleged

to be one of the causes of the latter, and the author doubts the truth of this contention.

5. Bladder Changes in Cancer of the Uterus.—Hirt and Sticker have cystoscoped fifty-four women afflicted with uterine cancer. Many different lesions were found, among them, prominence of the trigonum; transverse, parallel formation of folds in the wall of the bladder and the trigonum; irregularities in the internal sphincter; changes in the blood vessels and hæmorrhages; abnormalities in the ureteral openings; bullous œdema; papillary excrescences and ulcerations. Similar changes in the circulation are seen in perivesicular inflammations and in cystitis, and epithelial excrescences may occur in normal bladders; the authors, therefore, advise caution as to operating in cases which show vesical changes, on these changes alone as indications. Besides, even when the uterus and bladder are firmly bound together when the former is invaded by cancer, the cystoscopic examination may be perfectly normal.

BERLINER KLINISCHE WOCHENSCHRIFT.

November 2, 1903.

1. Dedicatory Address, By O. HEUBNER.
2. Febrile Course in a Patient with Removed Spleen,
By W. VON MARACZEWSKI.
3. Gastric Phenomena in Migraine and Epilepsy,
By MANGELSDORF.
4. Mette's Clinical Method of Pepsin Determination,
By O. KAISERLING.
5. Isohæmolysin in Human Blood Serum,
By C. MORESCHI.

2. Fever Course After Splenectomy.—Moraczewski relates the case of a man, fifty-one years old, whose spleen had been removed seven months previously, and who was taken ill with pneumonia, during the course of which the leucocytes fell from 50,000 to 8,000. In the urine, the phosphates increased as the leucocytes diminished, but no other special differences were noted. As the white cells increased, the calcium excretion also increased, a fact which may possibly be explained by the metabolism of the increasing cells. For three days, the iron and indican increased. The course of the fever was exactly the same as that in individuals who had not been splenectomized.

3. Gastric Nervous Phenomena.—Mangelsdorf examined 469 persons suffering from migraine, and in 409 found a decided increase in the size of the stomach during the attack. Gradually, in these cases, a gastric atony is developed. The origin of acute gastric atony is probably central. The author has found the same phenomenon in cases of epilepsy. In the cases of migraine, treatment of the gastric disturbance was decidedly successful.

PRESSE MEDICALE.

November 7, 1903.

The Radical Cure of Hysteria; Reeducation,

By PAUL EMILE LÉVY.

Hysteria.—Lévy says psychic treatment is fundamental in hysteria, although electrotherapy, supralimentation, and hydrotherapy are valu-

able. The object is first to remove all causes of painful emotion, and second, to render the subject less susceptible to such causes. The first is easier to write than to carry out; but sympathetic friends should be kept away and every thought and suggestion that produce emotion should be avoided by the attendants and the patient; fatigue must not be allowed by exercise or otherwise, and digestion must be scrupulously regulated. Finally, by suggestion, the character must be reformed on solid grounds, by talks with the patient in which her fears are shown to be groundless; Lévy has the patient close her eyes, but explains at length that he is not attempting to hypnotize her, and then suggests that her health is about to be reestablished and all unpleasant manifestations are to disappear, each symptom being dwelt upon, and its particular disappearance guaranteed. It is a sort of mental vaccination that must be accomplished, and above all, the treatment must be continued till all chance of relapse is banished. The patient must be thoroughly persuaded of her recovery and have ceased to dwell upon her former troubles.

LYON MEDICAL.

November 8, 1903.

1. Treatment of Syphilis (*Continued*), By GAILLETON.
2. Theobromine as a Hypnogogue in the Course of Certain Arterial Cardiopathies,
By L. GALLAVARDIN, and PÉRU.
3. Different Methods of Extraction in Frontal Presentations,
By PLAUCHU.

1. Syphilis.—Gailleton pursues his subject with a consideration of the suspension of metallic mercury in oil, used hypodermically, which he considers as secondary only to calomel in energy, although it is painful and produces diarrhœa and stomatitis; it is best in the earlier stages of the disease. Metallic mercury, hypodermically, has been abandoned. Mercury protoiodide in syrup, hypodermically, is also painful, and the biniodide in oil still more so; the salicylate, thymol acetate, yellow oxide, carbolates, are all used, but are difficult to prepare, uncertain, and painful. Of soluble injections, mercury benzoate, the bichloride, the mercurial peptones, the aqueous solution of the biniodide, the lactate, the phenoldisulphonate, the neutral salicylate, the sozoiodolate, the succinamide, have all been used with more or less success. The bichloride and cyanide have been administered intravenously, with good results in cerebral syphilis, where immediate effects are desired; asepsis must be rigorous. Intratracheal injections are new and seem to promise well (*To be continued*).

2. Theobromine as a Hypnotic.—Gallavardin and Péru have observed when giving theobromine as a diuretic that it produced sleep, and is superior to chloral, etc., being not dangerous to cardiac subjects. It is especially useful in subjects with pallor, restlessness, and insomnia, but without œdema or great dyspnœa. Two grammes given in divided doses during the afternoon, bring sleep and relief of other distressing symptoms. In valvular asystolic and oliguric cases these good effects do not obtain.

November 15, 1903.

1. Salpingoscopy, By COLLET.
2. Treatment of Syphilis (*Continued*), By GAILLETON.

1. **Salpingoscopy.**—Collet speaks highly of the salpingoscope of Valentin of Béarne, an instrument constructed on the plan of the cystoscope and permitting a very complete examination of the nasal fossæ.

2. **Treatment of Syphilis.**—Gailleton takes up potassium iodide always to be given well diluted, by the rectum if the stomach will not tolerate it; it is superior to other iodides, to metallic iodine, and to the tincture of iodine. Belladonna will sometimes counteract iodism. Gailleton does not believe that it aids in the elimination of mercury. The double salts of mercury and potassium iodide are sometimes useful. Where rapid action is necessary, mercury biniodide may be injected and the potassium given with meals. Crustaceous syphilides, palmar psoriasis, and sclerous infiltration of the epididymis or testicle yield quickly to this combination, which is often valuable where mercury or potassium alone seem to be inactive. Perhaps mercury modifies particularly inflammatory action and the iodide has a specific action on neoplasms. (*To be continued.*)

REVISTA DE MEDICINA Y CIRUGIA DE LA HABANA.

September 10 and 25, and October 10, 1903.

1. Contribution to the Study of Infantile Atrophy, A. A. ABALLI.

1. **Infantile Atrophy.**—Aballi draws the following conclusions from an extended study of the tissues in infantile atrophy: Infantile atrophy occurs in two forms—primary and secondary. In the first, the characteristic features are absence of the so-called Pareth's cells at the bottom of the crypts of Lieberkühn; and a special condition of the pancreas, which might be described as embryonic. In view of the modern ideas concerning the function of that organ, this condition alone suffices to account for the faulty nutrition. Primary infantile atrophy sets in when a food is given the chemical and biological formula of which is below the requisite standard; and to the defective nutrition which this occasions, succeeds arrested development of the organs and consequent imperfect fulfillment of their functions; both processes contributing to the establishment of a vicious circle. Solely in atrophy secondary to acute or chronic inflammation of the gastrointestinal tract, may Heubner's ideas or the mechanism of intestinal atrophy be admitted.

POLICLINICO.

Sezione pratica, August 1, 1903.

- The So-Called Disease of Pavy (Cyclic Albuminuria), By FERRUCCIO BINDI

Cyclic Albuminuria.—Bindi reports the case of a young woman, aged eighteen years, who was suffering from headaches, œdema, and a variety of nervous phenomena, who was somewhat anæmic, but whose general health was not very markedly affected. He found her suffering from cyclic albuminuria, and discusses the various fea-

tures of this case with reference to this phenomenon. The remarkable influence of rest on the amount of albumin was, in this case, directly opposite to that usually observed, i. e., the albumin was usually greatest in the morning. The albuminuria almost disappeared about noon, and again increased towards evening. This cycle was regularly repeated. Nitrogenous food did not seem to increase the amount of albumin, but injections of iron and arsenic, modifying the anæmia, reduced the albumin to a minimum, and when discontinued were followed by an increase in the albuminuria. The premenstrual periods were characterized by a reversal of the cycle, i. e., the albuminuria became orthostatic, or increased on standing up and on mental and physical exertion. The author thinks that this albuminuria was of glomerular origin, inasmuch as the albumin was of the renal variety (serum albumin), and there was no sediment in the urine from the urinary tract of the genital organs.

RIFORMA MEDICA.

September 16, 1903.

1. Physostigmine in the Treatment of Intestinal Atony, By G. CURLO.
2. Pancreas in Cirrhosis of the Liver, By L. D'AMATO.
3. Pericarditis with Tuberculosis of the Peribronchial and Periportal Glands. Death Due to the Rupture of a Suppurating Peribronchial Gland Into the Pericardium, By G. FINZI.
4. The Treatment of Facial Erysipelas, By F. SARCINELLI.

1. **Physostigmine in Intestinal Atony.**—Curlo finds that physostigmine produces a stimulating effect on the muscles of the intestine, which results in a spasmodic contraction and an increase in peristalsis. It is especially indicated in coprostasis due to intestinal atony. It is contraindicated in the spastic forms, in intestinal catarrhs, and in mucomembranous enterocolitis. Owing to its spastic effect, augmenting as it does the tonicity of the intestinal muscles, it is an excellent aid in the treatment of meteorism. The normal dose is from two to three milligrammes, while the maximum dose which can be reached without obtaining toxic symptoms, is from four to six milligrammes, but this may not be exceeded with impunity. The signs by which we test the tolerance of the patient for this drug are the meiosis of the pupil and the sialorrhœa. The best preparation is the salicylate, and this is most easily administered in pills.

2. **Changes in the Pancreas in Cirrhosis.**—D'Amato finds, in a series of studies on the alterations produced in the pancreas by cirrhosis of the liver, that the pancreas shows a growth of interstitial connective tissue, circumlobular in location, but this increase is not found uniformly in all cases—at times it is quite diffuse, invading the lobules, and in other cases the tissue remains circumlobular. In no case was the growth of interstitial tissue very marked. The islands of Langerhans also participate in the morbid process, but the changes in these are not very marked. Sometimes they consist merely in an enlargement of the epithelial cells, but at times there is a true

inflammation in the islands, or they are surrounded by connective tissue. In addition, there are noted in the pancreas in cirrhosis marked hyperæmia of the passive order, hæmorrhagic infarcts, and diffuse necrosis. There is, besides some fatty degeneration which is not constant. The chronic inflammatory changes described are not due to the hyperæmia, but to the same cause as the cirrhosis. The changes in the pancreas in cirrhosis explain the occurrence of diabetes in patients with cirrhotic livers.

4. Treatment of Facial Erysipelas.—Sarcinelli places over the patient's whole face a mask of cotton saturated with a solution of corrosive sublimate, one-quarter to one-half per cent. in strength. After two hours this mask is changed for one saturated with a three per cent. solution of salicylic acid, and in two hours, the corrosive sublimate mask, with fresh solution, is again applied. The alternate use of these masks is advised, because sublimate alone would macerate the skin too much and sometimes even produce a partial necrosis, besides symptoms of mercury poisoning. If there are areas of bullæ it is better to cover these with an ointment of ichthyol and vaseline, and to apply the same mask over the ointment, so as to cover the rest of the face.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

August 16, 1903.

1. Infective Jaundice (Weil's Disease),

By G. MARCHESE DI LUNA.

2. Suture of Bones in Fracture of the Fibula,

By TITO SCARRONE.

3. Some Unusual Cases in the Venereal Clinic,

By DR. SECCHI.

4. Suprarenal Extract in the Treatment of Vesical Atony,

By GIUSEPPE MORESCO.

5. Contribution to the Clinical Study of Pseudoleucæmia,

By AURELIO GERMANI.

2. Bony Suture in Fracture of the Fibula.—Scarrone relates a case of fracture of the fibula, produced four months before admission, in which the fragments were found ununited, about two centimetres apart. The limb having been rendered bloodless by Nicaise's method, a transverse curvilinear incision was made (Mackenzie's), the fragments exposed, and found united by a small amount of fibrous tissue. The superior fragment was so adherent to the lower end of the femur that a scalpel had to be used in separating the adhesions. Attempts to bring the two fragments together failed until the lateral ligaments, the tibiofibular ligament, and the tendon of the quadriceps had been detached from their insertions. The fragments were freshened and then united with three sutures of stout silk in such a manner as not to include the incrusting cartilages. The fibrous tissues were united with catgut and the skin wound was closed. The limb was immobilized in extension. The bandages were removed twenty days later and the patient made a good recovery.

4. Action of Suprarenal Extract in Atony of the Bladder.—In those forms of retention due to no extraneous cause, but dependent solely on a diminution or abolition of the normal contractility of the bladder muscles, contractor of the mus-

cular fibres is indicated. Moresco, therefore, began by injection into the bladders of two patients with atony, due to the weakness of the detrusor muscle, about 150 c. c. of a 1:50,000 solution of suprarenal extract, allowing the solution to remain in the bladder for an hour or longer. As this first injection was well borne, the strength was increased to 1:25,000, and after five or six injections there were some attempts at spontaneous micturition. In about two weeks the patients could empty their bladders almost without any help from the catheter. While these cases are few and incomplete, the results appear to the author to be encouraging.

ROUSSKY VRATCH.

September 27, 1903.

1. Narrow Chest in Children, By I. V. TROITSKY.

2. Experiments in Immunizing Man with Diphtheria Toxines and Active Immunization in General,

By B. N. BOLDYRIEFF.

3. On the Operative Treatment of Gunshot Wounds of the Abdominal Cavity, By B. K. FINKELSTEIN.

4. Attempts to Determine the Normal Length of the School Day on the Basis of Physiological Data,

By V. S. OSTANTCHUCK.

5. The Sanitary Inspection of Illuminating Gas (To be continued),

By P. N. LATCHENKOFF.

1. Narrow Chest in Children.—Troitsky emphasizes the fact that children that grow with abnormal rapidity and develop narrow chests show a variety of special predispositions to disease. In children with narrow chests a hereditary or acquired multiple inflammation of the glands is more common, and more difficult to treat successfully, than in normal children; but in pneumonia the child with an abnormally narrow chest is at a special disadvantage. In such children pneumonia, pleurisy, pericarditis, etc., are of more severe character than in other children. Certain obstinate intestinal troubles in children can only be cured after the gaseous exchange that is deficient in their narrow chests has been corrected; the same is true of chronic nephritis, intermittent albuminuria, enuresis nocturna, and non-specific discharges from the genitals of girls. Children with narrow chests are greatly predisposed to sexual irritability and masturbation, due to congestion of the genitals, the result of insufficient pulmonary circulation. The physician should remove the cause of these dissonances, as much as possible, by appropriate hygiene and treatment. Systematic exercises of the upper part of the body, massage, and the use of remedies regulating the heart's action, if need be, are indicated in such cases.

2. Immunization of Man with Diphtheria Toxine.—Boldyrieff has attempted to immunize his own body against diphtheria by injecting small repeated doses of the toxine. Dzerzhgovsky showed, in 1902, by experiments upon himself, that the human organism could be immunized against diphtheria by the active method, i. e., the injection of diphtheria toxines. After a series of such injections of toxine, obtained from diphtheria cultures, Dzerzhgovsky was able to stand the enormous dose of 1,700 times the minimum fatal dose for guinea pigs, a dose several

times larger than that fatal to man. Boldyrieff also injected diphtheria toxine into himself, subcutaneously, or rather into the cellular tissues, but he used small doses. He thus brought his body to contain 600 antitoxine units, i. e., 0.4 unit for each cubic centimetre of serum, and during all the experiments he did not experience any discomfort; the temperature and the urine remained normal. To show that with small amounts of antitoxine in the blood the organism is able to cope with diphtheria infection, the author experimented on animals, and found that dogs resisted infection with these germs when they had developed very small amounts of antitoxine in their blood after injections of toxine. The active method may possibly be used for immunizing human beings.

3. Treatment of Abdominal Gunshot Wounds.—Finkelstein reports six cases of gunshot wounds of the abdomen. In two cases operation was refused though all conditions would have been favorable for a recovery after operation in their cases. Both died of septic peritonitis. In the four other cases, laparotomies were performed, with death in only one case of a wound of the stomach, liver, and pancreas; the symptoms were those of a wound of the stomach alone. A wound of the stomach is not an immediate indication for operation, as the patient frequently make a good recovery, owing probably to the marked tendency to contraction of the stomach wall. Each case must be judged separately, but we must be sure that the other organs are intact, which is not possible in most cases; so laparotomy is really the safe measure.

4. The Length of the School Day.—Ostantchuck says that from physiological experiments excessive fatigue occurs in children of the lower four classes of the public schools if the length of the time devoted to brain work, i. e., to actual teaching, exceeds from 2.7 to 3.5 hours daily, or 22-27 hours per week. This is the length of time allotted to teaching in these classes according to the latest order of the Ministry of Public Instruction in Russia, but unfortunately the length of time necessary to study the lessons at home has not been considered. The author insists that this measure of time for brain work in children of the lower classes of public schools is the whole time that should be given to mental effort during the day, and that no lessons should be given to be studied at home.

October 4, 1903.

1. Surgery as a Science and as an Art. Educational Problems of the Surgeon, By N. M. VOLKOVITCH.
2. A Case of Fibrinous Pneumonia. Complicated by Pneumococcic Endocarditis and Pericarditis, By I. V. SAKHATSKY.
3. Some Peculiarities of the Temperature in Perityphlitis, By M. I. ROSTOVTSSEFF.
4. Fibromas of the Anterior Abdominal Wall, By N. M. POROSCHINE.
5. Principles of Sanitary Supervision of Illuminating Gas (Concluded), By P. N. LASTCHENKOFF.

2. Endocarditis and Pericarditis Complicating Pneumonia.—Sakhatsky reports a case of lobar pneumonia in which the pneumococcus infection involved the endocardium and the pericardium. The occurrence of this complication in pneumonia is quite rare; according to statistics, in about 0.2 per cent. of all cases. The symptoms of endocarditis in this case appeared three days after the crisis, while in most cases of this kind they appear in the second week thereafter. The endocardial lesions affected all the valves, including the tricuspid, and the growths on these valves were so extensive that it was astonishing how the heart could have worked so long.

3. Temperature in Perityphlitis.—Rostovtseff says that in more than one third of the cases of perityphlitis in his experience there were abscesses and purulent effusions with a low or sinking temperature. A number of observers have noted a very marked difference between the rectal and axillary temperatures in perityphlitis; more than ten times the usual difference. In severe cases there is often a discrepancy between the pulse and the temperature in these cases, the temperature falling, and the pulse rising. A peculiarity of the temperature especially noted by Rostovtseff was the fact that the highest daily temperature was not seen as usual in inflammatory conditions at about six o'clock in the evening. It was highest at that hour only in 43 per cent. of the cases observed. In 44.8 per cent. it was highest at nine o'clock p. m. Another very interesting fact was that the more severe the case, the more was the highest temperature apt to occur at nine, instead of at or about six. This may be a very helpful hint in prognosis. The temperature in all cases of perityphlitis should be most carefully watched.

5. Illuminating Gas in Public Sanitation.—Lastchenkoff says that it is very important for a city to compel the gas contractors to furnish a certain standard quality of gas that shall not contain more than definite limits of injurious substances. The chief questions are the amounts of sulphur and carbon dioxide which illuminating gas shall be allowed to contain. There should not be more than fifty grammes of sulphur in each hundred cubic metres of gas, and not more than eight per cent. of carbon dioxide. The mixture of water gas with illuminating gas should be allowed, only in such limits as do not exceed the normal limit of carbon dioxide indicated. The supervision of the gas supply should be administered by the municipal boards of health.

AMERICAN MEDICINE

December 5, 1903

1. Treatment in 442 Cases of Movable Kidney Without Surgical Intervention, By CHARLES D. AARON.
2. A Logical Definition of Typhoid Fever, By HENRY A. FAIRBAIN.
3. The Relation of the Rectal Valve to Obstipation; A Clinical Research (Illustrated), By THOMAS CHARLES MARTIN.
4. Otitic Serous Meningitis: Lumbar Puncture, Recovery, By FRANCIS HUBER.

5. A Case of Hysteric Tetany with Remarks on the Pathogenesis of the Disease (*Illustrated*),
By ALFRED GORDON.
6. Mycotic Disease of the Ear Canal: With Report of a New Fungus (*Illustrated*),
By S. E. COOK.
7. The Canteen,
By GEORGE M. KOBER.

1. **Movable Kidney.**—Aaron asserts that from 90 to 95 per cent. of all cases of movable kidney, even with associated ptoses, can be cured by means of a properly fitted support. General directions are given for the making of such supports, but the information is nowhere very definite. It is important, in adjusting the pads, to make sure that the pressure they will exert shall be in the direction of from below upwards. The histories of seven cases are reported as examples of what the author has been able to accomplish.

2. **Typhoid Fever: Its Definition.**—Fairbairn asserts that the old definitions of typhoid fever are not sufficiently broad. He proposes the following: "Typhoid fever belongs to the genus disease, to the species acute infection, with the property toxæmia and accidents focal lesions and clinical history, and the differentia; the essential characteristic, that it has associated with its lesions and as a determinate cause the Eberth-Gaff'ky bacillus."

3. **Rectal Valvotomy.**—Martin reports the histories of forty cases of obstipation due to hypertrophied rectal valves on which he has operated. Thirty-three of the patients were cured; five were improved and recurrence occurred in six cases. The operation is practically painless and can be performed without even a local anæsthetic.

7. **The Canteen.**—Kober (Chairman), Harrison, and Monjaras publish the report they have made to the American Public Health Association on the subject of the army canteen. It is not expedient to consider the article in detail, yet, the enormous importance of the subject warrants calling special attention to the paper. The information collected by the authors shows that, since the abolition of the canteen, drunkenness and venereal disease in the army have increased by about one hundred per cent. What this is going to mean to the community at large need not be explained to physicians.

BOSTON MEDICAL AND SURGICAL JOURNAL.

December 3, 1903.

1. Hypernephroma,
By PAUL THORNDIKE, and JOHN H. CUNNINGHAM, JR.
2. Papillary Adenocystoma of the Thyroid and Accessory Thyroid Glands,
By HARRY C. LOW.
3. Intestinal Parasites in Appendicitis,
By J. C. HUBBARD.

1. **Hypernephroma.**—Thorndike and Cunningham report three cases of hypernephroma. This term is employed to signify any tumor originating from the adrenal cells, whether the growth be an adenoma, a carcinoma, or a sarcoma. The symptoms due to such tumors are not entirely characteristic. The authors lay special emphasis on the frequent occurrence of periods of hæmaturia and frequency of urination. Between such periods the urinary function is nor-

mal, but there is marked pain in the region of the affected kidney. The chief points mentioned in the text are summarized as follows. (1) An affected kidney may not be much increased in size, but is generally very large. (2) The general outline of the organ is usually retained, and the surface is almost always nodular, although occasionally there is no external evidence of the growth. (3) The new growth is either encapsulated within the kidney substance or just below the kidney capsule. (4) On section the tumor tissue is generally yellowish, with a firm and distinct stroma, which gives the growth a nodular appearance. Some of these nodules usually show areas of hæmorrhage and degeneration. (5) The kidney tissue is either destroyed or pressed upon and distorted by the new growth.

2. **Papillary Adenocystoma of the Thyreoid.**—Low reports six cases of papillary adenocystoma of the thyreoid gland. He also discusses the nine cases recorded by other observers. The author treats his subject from the standpoint of the pathologist, and the paper is, therefore, of much greater interest to the specialist than to the general practitioner.

3. **Intestinal Parasites in Appendicitis.**—Hubbard reports two cases of appendicitis in which intestinal parasites were possibly the original cause of the inflammation of the appendix. He then proceeds to discuss the different forms of intestinal parasites in their relation to appendicitis, summarizing his conclusions as follows: (1) An intestinal parasite causes appendicitis through its presence as a foreign body; and by its struggles may bring about a perforation and peritonitis where otherwise none would have occurred. (2) *Trichocephalus dispar* has been proved to cause an inflammation of the appendix by injuring the mucous membrane while sucking the blood of the host. (3) *Ascaris lumbricoides* has been found with a material similar to that in *trichocephalus* in its intestinal epithelium and therefore is supposed to attach itself to the mucosa of the host and thus start the processes which result in appendicitis. (4) *Oxyuris vermicularis*. No proof has been found that this worm causes an appendicitis except in its rôle of foreign body.

MEDICAL NEWS.

December 5, 1903.

1. The Influence of Pasteur on Medical Science,
By C. A. HERTER.
2. Report Upon the Results with Different Kinds of Pure and Impure Milk in Infant Feeding in Tenement Houses and Institutions of New York City: A Clinical and Bacteriological Study,
By WILLIAM H. PARK, and L. EMMETT HOLT.
3. The Degree to Which Substances Agglutinating the Dysentery Bacilli Are Present in the Blood of Non-infected Persons,
By LAWRENCE B. PILSBURY.
4. General Convulsive Tic with Coprolalia,
By HARRY MORELL.
5. The Treatment of Anterior Dislocation of the Shoulder, with Report of a Case in Which Reduction Was Prevented by the Detached Greater Tuberosity,
By GEORGE TULLY VAUGHAN.
6. The Mortality of Diphtheria in Private Practice Under the Antitoxine Treatment,
By JOHN ZAHORSKY.

2. Milk; a Clinical and Bacteriological Study.

—Park and Holt report the results of an investigation conducted during the years 1901 and 1902 for the purpose of gathering facts relating to the following points: (1) To make a comparison of the results of infant feeding in tenements in winter and summer; (2) to determine how far such results were affected by the character of the milk used, especially its original bacterial content, its preparation, and whether it was fed after heating or raw; (3) to see to what extent results were modified by other factors, such as the care the infants received and the surroundings in which they lived. The paper is of considerable value, but its statistical character and its length render its condensation impossible. The authors summarize their conclusions under fourteen heads. We reproduce eleven of their conclusions in very greatly abbreviated form. (1) During cool weather neither the mortality nor the health of the infants observed in the investigation, was appreciably affected by the kind of milk or by the number of bacteria which it contained. (2) During hot weather when the resistance of the children was lowered, the kind of milk taken influenced both the amount of illness and the mortality. The effect of bacterial contamination was very marked when the milk was taken without previous heating. (3) The number of bacteria which may accumulate before milk becomes noticeably harmful to the average infant in summer, differs with the nature of the bacteria present, the age of the milk, and the temperature at which it has been kept. Of the usual varieties, over 1,000,000 bacteria per c. c. are certainly deleterious to the average infant. (5) No special varieties of bacteria were found in unheated milk which seemed to have any special importance in relation to the summer diarrhoeas of children. The number of varieties was very great, and the kinds of bacteria differed according to the locality from which the milk came. (6) After the first twelve months of life, infants are less and less affected by the bacteria in milk derived from healthy cattle. (7) Since a large part of the tenement population must purchase its milk from small dealers, at a low price, everything possible should be done by health boards to improve the character of the general milk supply of cities by enforcing proper legal restrictions regarding its transportation, delivery, and sale. (8) Of the methods of feeding now in vogue that by milk from central distributing stations unquestionably possesses the most advantages. (9) The use, for infants, of milk delivered in sealed bottles, should be encouraged whenever this is possible. (10) Since what is needed most is intelligent care, all possible means should be employed to educate mothers and those caring for infants in proper methods of doing this. (11) Bad surroundings, though contributing to bad results in feeding, are not the chief factor. (12) The observations indicate that close percentage modification of milk, although desirable in difficult cases, is not necessary to obtain excellent results with the great majority of infants.

3. The Dysentery Bacillus. A Study in Agglu-

tion.—Pilsbury reports the results of a study undertaken to determine (1) whether the different varieties of the Shiga bacillus would react with the serum of patients suffering from various diseases; (2) whether the acid and non-acid types would react differently with the same serum, and (3) whether the blood of infants contained similar agglutinating substances to the blood of adults. The author appreciates that his work is not, as yet, conclusive, but believes that it justifies the following deductions: (1) That the serum of non-dysenteric adult patients does agglutinate the Shiga and acid type (Flexner) bacilli frequently in a 1 to 20 dilution and occasionally in a dilution as high as 1 to 100. (2) That this agglutinating power is wanting in the blood of non-dysenteric young infants (under one year), rarely being present even in a 1 to 10 dilution. (3) That there are certain differences in agglutinating capability between the Shiga and acid type (Flexner) bacilli, the former in these tests clumping somewhat more readily than the latter. (4) That a decided and prompt reaction, under two hours, with the *Bacillus dysenteriae* in dilutions of 1 to 20 or higher in young subjects (under one year) and in 1 to 50 or higher in older persons who have not recently suffered from chronic or subacute intestinal disease, is probably pathognomonic of acute epidemic dysentery.

5. Treatment of Anterior Dislocation of the Shoulder.—Vaughan asserts that in attempting to reduce dislocations of the shoulder the following methods should be used in the order given: (1) Direct reposition; (2) extension and counter extension; (3) Kocher's method; and (4) arthrotomy. The author reports one case in which arthrotomy had to be resorted to to perform reduction. In this case the greater tuberosity of the femur had become detached and was found occupying the glenoid activity.

6. Diphtheria: Mortality in Private Practice.—Zahorsky quotes statistics which go to show that in private practice, with the early use and proper use of diphtheria antitoxine, the mortality from the disease should not exceed two per cent.

MEDICAL RECORD.

December 5, 1903.

1. Lesions of the Eye Which Occur in the Course of Diseases of the Heart, the Blood Vessels and the Kidneys, By CHARLES STEDMAN BULL.
2. Eye Lesions in Heart and Kidney Disease, By FRANCIS KINNICUTT.
3. A Report of Three Years of Operative Work per Vaginam at St. Joseph's Hospital, Yonkers, N. Y., By HENRY MOFFAT.
4. Inflammation of the Bladder, By HENRY G. SPOONER.
5. Observations on the Use of the Sahli Test Meal, By EDWARD A. ARONSON.
6. A Typical Case of Sporadic Cretinism, By FRANK F. NEWELL.

1. Lesions of the Eye Occurring in the Course of Disease of the Heart, Blood Vessels and Kidneys.—Bull's paper is of the formal text-book kind and does not lend itself to abstracting. It covers the subject, as set forth in the title, quite fully, and will be found useful for reference.

3. **Operations Per Vaginam.**—Moffat gives the following as the indications for selecting either the anterior or posterior vaginal routes. (1) The anterior vaginal route is most useful to reach and operate upon the round ligaments in cases of retroversion of the uterus or procidentia; also for removal of small fibroids, either subperitoneal or pediculated, or for conservative work on the ovaries and tubes, or for removal of these organs. (2) The posterior incision is most useful for drainage in cases of pyosalpinx, salpingitis, pelvic abscess, some cases of tubal pregnancy with hæmatocele and puerperal sepsis, either with or without involvement of the tubes; for oophoro-salpingectomy, when the ovary is held backward and downward by old adhesions, and even in some cases of acute general septic peritonitis.

5. **The Sahli Test Meal.**—Aronson finds many objections to the test meal proposed by Sahli, in 1902. These objections are: (1) When made up according to Sahli's description, the soup is not homogeneous. (2) The application of the test meal to general practice is entirely impracticable. (3) The time consumed in determining results is incommensurable with the advantages derived from its use. (4) The lack of agreement in every case between the clinical diagnosis and the diagnosis according to the Sahli method. (5) The possible diagnosis, by means of the test meal, of function disturbance. (6) The diagnosis between the degree of acidity and amount of secretion.

6. **Sporadic Cretinism.**—Newell reports the case of a boy, thirteen years old, thirty-six inches high and weighing thirty-seven pounds, who came under his observation in Northern Wisconsin. The interesting features of the case are: (1) That the patient could have reached his present age without his case receiving proper diagnosis and treatment; (2) that the patient was born in the United States, of American parents, and (3) the prompt response to the treatment in view of the advanced age of the child.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

December 5, 1903.

1. Progress of American Medicine and Its Relation to Public Affairs, By W. W. GRANT.
2. Demonstrated Pathologic Changes from Alcohol, By T. D. CROTHERS.
3. The Legitimate Therapeutic Uses of Alcohol, By O. T. OSBORNE.
4. Nasal Polypus; Origin and Treatment, By CHARLES H. BAKER.
5. The Window Resection Operation for the Correction of Deflections of the Nasal Sæptum, By OTTO T. FREER.
6. General Surgical Anæsthesia, By ERNEST J. MELLISH.
7. Vaginal Exploratory Puncture and Cœliotomy: Their Advisability in Doubtful Diagnosis in Diseases of the Female Genital Organs; Report of Cases, By C. O. THIENHAUS.
8. Carcinoma and Tuberculosis Treated by the Röntgen Rays, By G. E. PFAHLER.

2. **Alcohol: Its Influence on the Senses.**—Crothers has made an experimental study of the influence of alcohol upon sight, hearing, touch, and taste, and upon muscular capacity, heart ac-

tion and the mental functions. The author's work confirms the conclusions reached by Kraepelin and many other observers. These conclusions are that an amount of alcohol, equivalent to two and one half ounces of whiskey, exercises a distinctly paralyzing influence on the various functions of the body as noted above. Even in very much smaller doses than those mentioned alcohol produces depression. The author concludes by asserting that it is difficult to believe that alcohol has any other action on the nerve centres or protoplasm of the body than that of a narcotic and paralyzant.

3. **The Legitimate Therapeutic Uses of Alcohol.**—Osborne considers in succession the following indications for the use of alcohol: (1) Local; (2) to stimulate the heart; (3) as a food; (4) to increase the appetite and aid digestion; (5) to relieve acute internal congestion; (6) to relax and dilate the peripheral circulation; (7) to produce sleep, and (8) to combat poisons in the system. We call attention to only a few points in the author's paper. It is the author's belief that the contact of strong alcohol with the mucous membranes of the mouth, œsophagus, and stomach acts reflexly through the medulla to cause vasoconstriction, which raises the blood pressure, and hence stimulates the heart. After alcohol is absorbed (it circulates as alcohol) it causes vasodilatation and a fall in blood pressure. It is certain that overdoses of alcohol after absorption are depressant to the heart muscle, to the muscle fibres of the blood vessel walls, and to the vasomotor centre in the medulla. On these considerations the author bases his advice on the use of alcohol in derangements and affections of the heart. With regard to the utility of alcohol in combating poisons circulating in the blood, clinical experience is not conclusive. Laboratory experiments should be undertaken in order to settle this point.

4. **Nasal Polypi.**—Baker's chief contention is that nasal polypi are almost always the result of suppuration in the cells, of sinuses communicating with the nose, or of inflammation of the periosteum covering the middle turbinates and dependent on previous purulent inflammation within the bone itself. In the author's experience, asthma is very frequently associated with polypi and is often cured by their removal.

5. **Nasal Sæptum Deflections.**—Freer, in order to overcome sæptal deformities, is in the habit of resecting a portion of the cartilage and at times of the bone, which forms the nasal sæptum. The mucous membrane is not sacrificed as the first step of the operation is to dissect up flaps in one nostril so as to gain access to the bone. Twelve special instruments are needed to perform the operation and the author illustrates them. The author has performed 51 operations by the method he advocates and has observed perforation occur in nine cases.

7. **Vaginal Exploration.**—Thienhaus is a strong advocate of vaginal exploratory puncture and cœliotomy in patients having masses of indefinite character in the pelvis. He asserts that if the method were resorted to more often many lives would be saved.

LANCET.

November 21, 1903.

1. The Ideal Physician: His Early Training and Future Prospects, By SIR L. H. ORMSBY.
2. Typhoid Fever, By S. TAYLOR.
3. The Dawn and Rise of Physiology, By W. STIRLING.
4. The Anæmias of Infancy, By C. RIVIERE.
5. A Case of Multiple Liver Abscess, By A. BALFOUR.
6. A Case of Linseed Poisoning, By J. O. HOLLICK.
7. Unusual Case of Intestinal Obstruction, By D. MACARTNEY.
8. A Brief Experience in Abdominal Surgery, By B. G. A. MOYNIHAN.

2. **Typhoid Fever.**—Taylor tells us that two factors are necessary to produce an attack of typhoid fever—the seed, or germ, and the soil. Typhoid is essentially a disease of late summer and of early autumn. A fine dry summer followed by a heavy rainfall in the autumn is potent in the production of an epidemic. Meadows, ditches, and streams are polluted with alvine discharges, which are washed down by the rains into the larger sources of water-supply. Individual predisposition plays a large part; persons suffering from simple catarrhal affections of the bowels are more readily subject to typhoid than healthy individuals. In England the disease is of a milder type than on the Continent, possibly owing to the larger quantity of beer drunk abroad. Relapses are closely related with change of food, and with the administration of enemata or purgatives towards the end of the febrile period. Recrudescence is a different condition, and is regarded by the author as an abortive attempt at a relapse. They are also most common in those cases in which constipation is a marked feature and where steps are taken to empty the loaded bowel. The consequent increase in peristalsis perhaps liberates new toxines, producing a temporary or abortive febrility. Three symptoms are especially significant of danger: (1) Muscular tremors, which denote intense exhaustion, and are associated with deep ulceration of the intestine. (2) Delirium is a most unfavorable sign, especially when it occurs during the day as well as at night. (3) A persistently high evening temperature is also a symptom of gravity. An abrupt fall in temperature suggests hæmorrhage or perforation—severe diarrhœa may also produce a similar fall. Given a sudden fall in temperature in the third week of the fever, with a pulse rate falling in ratio to the temperature with diminished tension and dicrotism, and these signs followed by the phenomena of reaction, then we may assume that perforation has taken place, and the patient should pass into the surgeon's hands as soon as possible. The author objects to the Widal reaction, as an aid in diagnosis, for the following reasons: (a) it may be absent in true cases of typhoid; (b) it may be present in cases that are not typhoid; and (c) it is undesirable that this "laboratory" method should always be looked for. Five days of continued remittent fever, even though other symptoms are indefinite, always suggests typhoid fever. In the treatment the diet sheet is the most important factor. The author excludes milk, except in small quantities,

as it causes such bulky stools, using in its place beef and vegetable bouillon. No intestinal disinfectants should be used, but the best results follow the administration of mercury and chalk, two grains three times a day. It does not produce diarrhœa and obviates constipation. Diarrhœa—anything over six movements a day—calls for active measures: morphine by mouth or a starch and opium enema. Opium should be more freely used, albuminuria is its chief contraindication.

4. **Infantile Anæmia.**—Rivière has tabulated the blood conditions found in thirteen cases of infantile anæmia, and sums up his conclusions as follows: (1) That anæmia from any cause in infancy, if severe enough, gives rise to the peculiar symptoms grouped under the headings "anæmia splenica infantum" and "anæmia splenica pseudo-leucæmia" of von Jaksch. (2) That, consequently, these are not specific blood diseases, but owe their peculiarities merely to the "infancy factor" and that they represent merely different stages of the same condition. (3) That the common cause of severe anæmia in infants is gastrointestinal catarrh, leading to the absorption of toxines either from the growth of microorganisms, or possibly from the formation of poisonous by-products of digestion. (4) That leucæmia of infants is not a separate disease, but merely a still more advanced stage of this anæmia—that is, that the difference between them is one of degree and not of kind. (5) That leucæmia of adults is a return to the condition of an infantile anæmia and that, being rare, its causation is probably so narrowed down as to be practically specific.

5. **Liver Abscess.**—Balfour reports a case of multiple liver abscess occurring in a man twenty-nine years old, which he deemed worthy of record for the following reasons: (1) The comparative rarity of the site of the larger abscess (left lobe) and the somewhat infrequent nature of the smaller. (2) The apparent absence of dysentery as a forerunner. (3) The possibility that the affection of the liver was antecedent to a dysenteric attack which was cut short by the fatal issue of the case. (4) The great rapidity of the course of the disease and the absence of symptoms pointing to the full gravity of the condition. (5) That a fatal result followed an exploratory puncture, probably due to nerve-shock. (6) There was some question as to the real nature of the condition. The *Amœba dysenterica* was present.

6. **Linseed Poisoning.**—Hollick reports a case of poisoning in a robust man, from the internal administration and the external application to a mucous surface of the seeds of *Linum usitatissimum*, the common linseed or flax. The patient suffered from hæmorrhoids. His pulse rate rose to 120 a minute, and when seen he was in a state of collapse, with cyanosis of the face and extremities. Cutis anserina (goose-flesh) was marked, and there had been diarrhœa and vomiting. There was a history of similar attacks after using linseed. The poisoning was probably due to some residual oil, which is usually entirely expressed from the seeds. It contains palmitin,

stearin, and a glyceride of linoleic acid. The last was probably the potent factor.

7. **Intestinal Obstruction.**—Macartney reports a case of intestinal obstruction occurring in a woman, aged forty-two years, due to mass of small bones and raisin skins lodging above the ileocaecal valve. The abdomen was opened, and by careful manipulation, the mass was broken up and forced through the valve. Perfect recovery followed.

BRITISH MEDICAL JOURNAL.

November 21, 1903.

1. The Diagnosis of Pulmonary Tuberculosis (Lecture II), By C. T. WILLIAMS.
2. The Treatment of Some Acute Visceral Inflammations. (Harveian Lectures. No. 1), By B. D. LEES.
3. The Mechanism of Respiration in Pneumothorax, By A. EDMUNDS.
4. Two Cases Illustrating the Fallacy of Certain Physical Signs in Diagnosing Acute Perforated Gastric Ulcer, By W. H. PEAKE.
5. A Preliminary Report on the Treatment of Advanced Pulmonary Tuberculosis by Intravenous Injections of Iodoform, By T. W. DEWAR.
6. Case of Aortic Disease with Unusual Course, By H. E. BRUCE-PORTER.
7. Case of Acromegaly.
8. The Ætiology of Sleeping Sickness. (Editorial).

1. **Diagnosis of Phthisis.**—In his second lecture Williams discusses the diagnosis of excavation, or cavity-formation, in phthisis. The process in its simplest form seems to be a necrobiosis of the alveolar wall from the results of the epithelial proliferation caused by the irritation of the tubercle bacillus and possibly owing to a chemical change in the cells themselves. The liquefaction of the caseous mass is only a further step of disorganization. The process is often accompanied by fever and increased cough, and the expectoration becomes more abundant, purulent, and contains large quantities of living tissue. The physical signs consist of coarse and large crepitant râles, and the ominous click sound on cough, followed by the croaking and tubular sound, soon passing into the various modifications of the cavernous sound. Catarrhal sounds often mask the signs distinctive of softening. The percussion sounds over a cavity depend partly upon its distance from the chest wall. The cracked-pot sound is not an index of the size of the cavity, but indicates that it is superficial and immediately underlying the spot struck. To evoke it properly the mouth must be open. Where the cavity lies deep the percussion note is often dull. Retraction of the chest wall is often seen in cavity formation; it is easiest seen in the first or second interspaces. Contraction of a large cavity often causes flattening of the chest wall. Large amphoric cavities may be mistaken for pneumothorax. Lung tubercle softens in the order of its formation, so that cavities are commonest and earliest in the upper portions of the upper lobes. No conclusion as to the absence of a cavity should be arrived at without making the patient cough; it is as important as in the incipient stage of phthisis. The loudness of cavernous sounds is

no index of the size of the cavity. Cavities may be dry or secreting, primary or secondary, basic, contracting, and amphoric. The dry cavity is the result of chronic disease, and gives rise to no symptoms beyond morning cough and expectoration. In many cases they remain patent for years, and have on their walls aneurysms, which may rupture and cause sudden death. Secreting cavities are found in connection with acute forms of disease, and often extend rapidly. Secondary cavities are formed through the reinhalation of the secretion or sputum of primary cavities. Cavities may contract rapidly, but as a rule the process is a gradual one. The chief signs of contraction are: (1) flattening of the chest walls overlying the cavity, and contraction of the chest circumference of the side; and (2) displacement of neighboring organs. In amphoric cavities the excavation is so extensive that the air present gives rise to characteristic signs. In bronchiectasis the patients are most often children or middle-aged persons, showing no signs of wasting; the sputum is frothy, mixed with pus, and more or less offensive; and finally the majority of bronchiectatic cavities are basic. When they occur at the apex they are near the median line, and the percussion sound is resonant from the accompanying emphysema.

2. **Endocarditis and Pericarditis.**—Lees holds that sodium salicylate is as truly antirheumatic as quinine is truly antimalarial. But it must be given in adequate doses and not stopped too soon. Twenty grains of salicylate with forty grains of sodium bicarbonate every two hours during the day, and every four hours during the night, is the dose for the adult. For a child six to ten years of age, one half the above quantities should be given. After a day or two the dose should be increased five or ten grains at a time, until the patient is taking one hundred and fifty to two hundred grains of salicylate a day. Children require proportionally larger doses than adults, the rheumatic infection being much more intense. One symptom is a danger sign—this is a deepening of inspiration or "air hunger," resembling that seen in diabetic coma. The only case seen by the author was one in which the alkali was not given. An addition of twice the amount of alkali seems sufficient to prevent the occurrence of this symptom. Sodium salicylate is not a cardiac depressant; any acute cardiac dilatation that may be observed is due to the toxine of the *Micrococcus rheumaticus*. This organism also produces formic acid, thus explaining why alkalies are of service in the treatment of rheumatism. The author has also had great success in the treatment of chorea by the administration of massive doses of salicylate and alkali. Blisters over the præcordia in rheumatic carditis should not be used, but leeches applied to the cardiac area have a distinctly beneficial effect. The icebag over the præcordia is a powerful means of repressing cardiac inflammation, and in rheumatic pericarditis its effect is often very striking. But the patient should be made quite warm before and during its application, and the right auricle should not be overdilended; this can be prevented by the

application of a few leeches. With these precautions ice may be used for hours. The first step in the local treatment of rheumatic pericarditis is the determination of the amount of dulness in the fourth right interspace, and the relief of a distended right auricle by leeches or venesection. A dose of strychnine may then be given and the icebag applied. This line of treatment is amply justified by its results—recovery is more prompt, and relapses are less frequent.

3. **Pneumothorax.**—Edmunds has investigated the question as to how respiration takes place in a lung when the pleural cavity on that side has been opened externally and air allowed to enter freely. When such a condition obtains, the respiratory function lacks an all-important factor—the difference in pressure in the lung and pleura is abolished, and the lung is free to collapse. But experience teaches that the pleura may be opened with impunity, and yet respiration will continue. From his observations the author concludes that in the main the mechanism by which the affected lung is inflated, is by overflow from that on the sound side, owing to expiratory efforts taking place with the glottis closed.

4. **Perforating Gastric Ulcer.**—Peake reports two cases illustrating the fallacy of certain physical signs in diagnosing acute perforating gastric ulcer. In the first case, one of perforation of the stomach in a woman aged twenty-three years, there was no shock or collapse, the pulse was regular, and the temperature normal. The liver dulness was abolished, early vomiting was present, and pain of a paroxysmal character. Operation was performed, the perforation closed, and the abdomen washed out, but the patient died within twenty-four hours. The second case, one of dilated stomach in a girl aged twenty-three years, seemed, when first seen, to be one of perforating gastric ulcer with resulting peritonitis. There was violent, paroxysmal, epigastric pain, an elevation of temperature to 102.4° F., and a pulse of 104. The liver dulness was abolished, but there was no vomiting. A succussion splash was present, at first thought possibly to be due to fluid gastric contents free in the abdominal cavity. A forcible eructation of gas was followed by relief, however, and enabled the correct diagnosis to be made. Recovery took place under appropriate treatment.

5. **Iodoform in Phthisis.**—Dewar reports that he has obtained excellent results in the treatment of advanced pulmonary tuberculosis by intravenous injections of iodoform. All the patients treated had tubercle bacilli, cocci, and elastic tissue in the sputum, and in all cases both lungs were affected. In every instance there was a great, and often rapid, improvement in the physical signs, temperatures became normal, weight and vigor increased, and expectoration and bacilli diminished. The iodoform is given as a solution in ether, one part to seven, beginning with a daily injection of from five to seven minims, and gradually increasing the amount. Where the veins are large and the lungs not too much disorganized, large doses may be given—as high as

forty-five minims. The purest iodoform and ether obtainable should be used, and the solution made fresh for each administration. It must be slowly given, and into as large a vein as possible; the more extensive the venous system, the greater the probability of arrest of the progress of the disease. The method is not one for the busy practitioner, as it demands the most scrupulous care and dexterity to administer injections regularly for six months or a year. It is hard to avoid thrombosis and keep the vessels patent. Pain is an imperative indication to remove the needle—the successful injection is painless. In a few cases the patients had a marked idiosyncrasy against iodoform, and small doses caused dyspnoea and palpitation. Pure iodoform must be used, in order to prevent the rapid liberation of free iodine and consequent irritation of the veins. A slow, sustained action of the drug is what is desired; pushing the drug in large daily doses seems positively to saturate the system, and is not desirable. In some cases doubtful physical signs will first become more evident and positive before they eventually disappear.

6. **Aortic Disease.**—Bruce-Porter reports a case of acute aortitis, occurring in a man aged forty-three years, and causing puckering of the orifice and a regurgitant murmur, the heart being compensated by enlargement of the left ventricle. The compensation failed somewhat rapidly under the strain of life in India, and dilatation set in, causing leakage at the mitral orifice with back-pressure. As a rule, this signals the near approach of the end, yet the patient lived on in comparative comfort for over six months. Morphine was given regularly, a daily dose of one grain and a third being reached.

8. **Sleeping Sickness.**—The report of Bruce, Nabarro, and Greig on sleeping sickness in Uganda, is given in an editorial article, and is accompanied by plates of the trypanosome and the fly which transmits the disease. The conclusions arrived at are as follows: (1) That sleeping sickness is caused by the entrance into the blood and cerebrospinal fluid of a species of trypanosome. (2) That this species is probably that discovered by Forde and described by Dutton from the West Coast of Africa, and called by him *Trypanosoma gambiense*. (3) That the so-called cases of trypanosoma fever described from the West Coast may be, and probably are, cases of sleeping sickness in the earliest stages. (4) That monkeys are susceptible to sleeping sickness and show the same symptoms and run the same course, whether the trypanosomes injected are derived from cases of so-called trypanosoma fever, or from the cerebrospinal fluid of cases of sleeping sickness. (5) That dogs and rats are partly susceptible, but that guinea pigs, donkeys, oxen, goats, and sheep up to the present have shown themselves absolutely refractory. (6) That the trypanosomes are transmitted from the sick to the healthy by a species of tsetse fly, *Glossina palpalis*, and by it alone. (7) That the distribution of sleeping sickness and *Glossina palpalis* correspond. (8) That sleeping sickness is, in short, a "human tsetse fly disease."

A MULTIPLICITY OF TUBERCULOSIS
CONGRESSES.*16 WEST NINETY-FIFTH STREET,
NEW YORK, November 27, 1903.*To the Editor,*

Sir: During the past few months I have been the recipient of a large number of inquiries concerning the various tuberculosis congresses (American and international) which have been projected for the years 1904 and 1905. The multiplicity of these various congresses and the similarity of their names lead naturally to great confusion. It would be really too great a task to undertake to answer in full and individually all the letters with which I have been honored. I therefore ask you to grant me the space to give the desired information in your esteemed paper, so that all the readers of the *Journal* who may be interested will have a clear idea of the various congresses, their officers, and time and place of meeting.

It is announced that a congress on tuberculosis is to be held in St. Louis on October 3, 4, and 5, 1904, under the name of "International Congress on Tuberculosis." Upon careful inquiries I have learned the following facts about this congress: Mr. Francis, the president of the St. Louis exhibition, had been approached by the officers of the "American Congress on Tuberculosis," which was founded some years ago by Clark Bell, Esq., a lawyer, of New York, to sanction the holding of an international congress on tuberculosis in connection with the Louisiana Purchase Exposition. From a letter received from Dr. E. J. Barrick, of Toronto, Canada, now president of this American congress, I learn that Mr. Francis has appointed the above mentioned Mr. Clark Bell chairman of the committee on organization. Mr. Clark Bell is also the treasurer and chairman of the executive committee of the "American Congress on Tuberculosis," season 1903-1904; a Mr. Samuel Bell Thomas, of 290 Broadway, New York, is the secretary of the latter. The officers of the international congress are not yet elected. I was desirous to learn the names of other medical men interested in this congress, and Dr. Barrick very kindly wrote me on November 16th that he had asked Mr. Bell to furnish me with the desired additional information, but nothing has thus far been received.

The other international tuberculosis congress announced is the one to meet in Washington, D. C., April 4, 5, and 6, 1905. It is to be held under the auspices of "The American Congress on Tuberculosis for the Prevention of Consumption." The following is a list of the officers of this latter organization:

Honorary president, Dr. Henry D. Holton, of Brattleboro, Vt.; member of the executive council, Dr. Charles O. Probst, of Columbus, O.; president, Dr. Daniel Lewis, of New York; vice-presidents, Dr. J. A. Egan, of Springfield, Ill.; Dr. Frank Paschal, of San Antonio, Tex.; Dr. Irving

A. Watson, of Concord, N. H.; Dr. Charles Wood Fassett, of St. Joseph, Mo.; secretary, Dr. George Brown, of Atlanta, Ga.; treasurer, Dr. P. H. Bryce, of Toronto, Canada.

Before going any further I should like to call the attention of my readers to the difference in name of the two American congresses. The one is "American Congress on Tuberculosis," the other "The American Congress on Tuberculosis for the Prevention of Consumption."

The congress which was to meet under the name of "Congrès international de la tuberculose," at Paris, from September 26 to October 1, 1904, has been recently postponed to the year 1905. The president of this congress is Professor Brouardel, honorary dean of the Faculty of Medicine of Paris. The general secretary is Dr. M. Letulle, professeur agrégé of the Faculty of Medicine, residing at 7 rue Magdebourg, Paris. This congress will be divided into two sections, the medical and the social:

I. In the medical section the following subjects will be discussed: 1. New methods for the treatment of lupus. 2. New methods for the early diagnosis of tuberculosis. 3. Comparative studies on the different forms of tuberculosis. II. In the social section: 1. Ætiological factors in tuberculosis. 2. Value of different means for the treatment of tuberculosis. 3. The voluntary insurance and the mutual societies in the combat against tuberculosis. The congress will, furthermore, form a technical section under the name of "Museum of the Congress."

There will be held during the coming year, independently of the above mentioned congresses, two tuberculosis exhibitions, one in Baltimore and the other in St. Louis. The Baltimore Tuberculosis Exhibition will be held in January, 1904, under the combined auspices of the tuberculosis commission, the State board of health, and the Maryland Public Health Association. Details are in charge of Dr. W. S. Thayer, president of the commission; Mr. John M. Glenn, secretary; Dr. John S. Fulton, secretary of the State board of health, and Dr. Marshall L. Price. Dr. Henry B. Jacobs has been selected chairman, and 250 prominent professional men and laymen have been asked to act as an advisory committee. A series of lectures will be given, the object of which will be to present the extent and effects of the disease in a striking manner. The pathological, hygienic, sanatorium, and sociological aspects of the tuberculosis problem will be practically demonstrated by specimens, charts, literature, instruments, photographs, and plans. All communications concerning this exhibition should be addressed to Dr. Marshall Langton Price, 10 South Street, Baltimore, Md.

The other tuberculosis exhibition will be held in St. Louis in connection with the exhibition of social economy and under the subsection of hygiene, of which Dr. J. N. Hurty, of Indianapolis, is superintendent. To avoid multiplicity of exhibits, Dr. Hurty has put himself in communication with the general secretary of the International Bureau for the Prevention of Consumption at Berlin, Professor Pannwitz, so that the exhibits which the European countries contemplate send-

* Dr. Knopf's letter reached us a little too late for publication in last week's issue. In consequence of the recent great increase in the number of copies we are obliged to print, we have to go to press earlier than formerly.—EDITOR.

ing, will also come under his direction. All indications point toward success of both exhibits, and it is to be hoped that they will fulfill their high purpose and at the same time be a credit to American physicians and hygienists.

Considering the various congresses, I do not hesitate to express a feeling of deep anxiety. The first one mentioned, which for the sake of brevity I will call "the Bell congress," because it owes its inception to Mr. Clark Bell, has, so far as my knowledge goes, not the support of our best known men in the field of clinical medicine, hygiene, tuberculosis pathology, or tuberculotheapeutics.

The second congress in point of time, which again for the sake of brevity and clearness I may call "the Lewis-Brown congress" (names of the president and secretary), while it has many distinguished men of various State and Provincial boards of health among the members, has, like the Bell congress, thus far not among them the men we are wont to look up to as leaders in movements of this kind such, as Briggs, Billings, Bowditch, Flick, Jacobi, Janeway, Klebs, Osler, Otis, Trudeau, and Tyson.

What are our confrères across the water to think if they hear of two American congresses on tuberculosis, each having an international one under its auspices? The European authorities found it best, instead of having a triennial congress, to allow one more year to intervene. This will make the congress in Washington and the one in Paris convene in the same year (1905).

I hope this letter, which I address to the medical profession in America, will result in a satisfactory solution of this very complicated problem. If President Francis, of the St. Louis exposition, desires that a tuberculosis congress shall be held in St. Louis, let him call to his aid some of the men whom I have mentioned as leaders in our profession. They will counsel with him on the advisability of such a congress, and if it is decided that one should be held, Mr. Francis can be assured that the best element of Europe and America will come to St. Louis to contribute to its success.

The officers and members of the Lewis-Brown congress must realize that they cannot expect to have their international meeting in Washington successful when, six months later, there will be an international congress in Paris. I hope that there will be enough patriotism and national pride for all interested to realize that two American congresses on tuberculosis are an anomaly, and that, if the St. Louis congress is to be a success, it must be in the hands of medical men well and favorably known in this country and abroad.

As a solution of the problem I beg leave to suggest the following: During the tuberculosis exposition in Baltimore next January all interested should meet on a certain date on this neutral ground for the purpose of coming to an agreement about a single representative national or international tuberculosis congress to be held in America. There, too, should be formed a national congress on tuberculosis which would be in touch with the international tuberculosis congress which will convene in Paris in 1905.

S. A. KNOPP.

THE DEATH RATTLE.

49 EAST SIXTY-FOURTH STREET,

NEW YORK, November 25, 1903.

To the Editor,

Sir: I desire to present, for the consideration of your readers who may have been affected with a fear of death or the law makers after reading the letter of your correspondent in the November 21st issue of the *Journal*, the description of a little contrivance to be attached to the floor near the doctor's operating table. It consists essentially of a metallic disc working freely above a base block, but capable of being set by means of a spring and trigger. When it is sprung by jar or falling body, an electric connection is made with either the messenger call box or the telephone. In the former a slight alteration must be made at the proper position on the dial, the explanatory words "Doctor Dead! Help!" to be added. For the benefit of the intelligent "Central" one of the ordinary "buzzer" attachments is sufficient. At the Academy of Medicine there must be maintained in conjunction an emergency corps of specialists in all lines of medicine and surgery, with an ambulance in one of the near by stables kept ready for instant use at any hour of the day or night. Complete, ready packed outfits of instruments are to be kept at hand for use in these rush calls. The name of every physician in the city, with address, is to be printed on a list under that specialty in which he is found to do the most work. To prevent needless strain on the emergency corps, penalties must be enforced when a doctor "takes a fall" and doesn't die, as in those instances where the patient who had been given up recovers and comes in to pay his bill, also when a patient whose elbow joint doesn't hinge nicely after fracture comes in to talk over the suit.

FREDERIC GRIFFITH.

A MEDICAL HISTORY CLUB.

101 HAMILTON PLACE,

WASHINGTON HEIGHTS, N. Y.,

November 27, 1903.

To the Editor,

Sir: Are there a dozen or more physicians in the vicinity of Washington Heights who are sufficiently interested in the history, philosophy, and archæology of medicine to form a little semisocial club, meeting at one another's houses at regular or irregular intervals, for the purpose of spending a pleasant and profitable hour or two over coffee and cigars, or, to use Professor Osler's classic expression, "beer and baccy," in the consideration of these subjects? If there are such, I should be glad to hear from them.

KENNETH W. MILLICAN.

The Milwaukee, Wis., Medical Society has secured new quarters in the Goldsmith building, where it will hold meetings on the second and fourth Tuesdays of each month. The society has a library of 2,500 bound volumes and receives regularly seventy medical publications.

Book Notices.

The Medical Annals of Maryland, 1799-1899. Prepared for the Centennial of the Medical and Chirurgical Faculty, by EUGENE FAUNTLEROY CORDELL, M. D., Baltimore. 1903. Pp. 888.

It is not very long since we chronicled the appointment of Dr. Cordell to fill the first chair of the history of medicine to be established in this country, viz., at the University of Maryland. The fitness of that appointment is demonstrated by the work before us. It is a monument of painstaking investigation.

The work took its origin as part of a plan to celebrate and commemorate the centennial of the Medical and Chirurgical Faculty of Maryland. This undertaking was under the control of a committee, consisting of William Osler, Thomas A. Ashby, Harry Friedenwald, Henry M. Hurd, and George J. Preston, and to Dr. Cordell was entrusted the labor of compiling the *Annals*. The author acknowledges his indebtedness to Dr. John R. Quinan, not only for the aid offered by his published *Medical Annals of Baltimore*, but also for the use of materials collected by that author for an intended second edition of his work.

Exigencies of space forbid us giving such an extended review to this work as we should like and as we feel that it deserves. The book is divided into four sections. In the first section the medical history of Maryland is detailed from 1779, the date of the first (abortive) attempt to organize the medical profession in that State, to the period of the centennial meeting in 1899. A charter was granted, in 1799, to 101 incorporating medical men who represented "not only the best elements of the Maryland profession of the period, but the highest types of physicians to be found anywhere—men trained at the schools of Leyden, Paris, London, Oxford, Edinburgh, Glasgow, Aberdeen, Dublin, Philadelphia, pupils of Boerhaave, Cullen, the Mouros, Bell, Rush, and others," for "promoting and disseminating medical and chirurgical knowledge throughout the State," and to "prevent the citizens thereof from risking their lives in the hands of ignorant practitioners or pretenders to the healing art." This charter originated the Medical and Chirurgical Faculty of the State of Maryland. "No one in future, under penalty of \$50 for each offense, was to begin the practice of medicine in the State without either passing a 'full' examination before the board of examiners of one Shore or the other, or in lieu thereof presenting a satisfactory diploma from a medical college." Among the interesting events noted by Dr. Cordell is the origination, in July, 1832, of one of the first *Codes of Medical Ethics* devised in America. The first fee table in Maryland was drawn up about the same time, and later (1848) was adopted and published by the Medical and Chirurgical Faculty.

The beginning of the valuable library of the faculty, concerning which we published in our issue for October 31st Dr. Cordell's Presidential Address at the last meeting of the faculty, took its rise in 1830, in a resolution offered by Dr. Samuel Baker, of Baltimore. A catalogue, issued in

1835 and now in the library of the surgeon general at Washington, shows the number of books at that time to have been 569. By 1840 it had risen to 979. At the present time, Dr. Cordell, in the address before referred to, says: "With the late rapid growth of our library . . . we have outgrown our home and are being crowded out. Not only are the shelves full to repletion, but there is no room for more shelves." The number of volumes is now 13,260, and these are of the best and most valuable kind." Yet, in 1876, it was officially stated "the library is still stored in a small room and is useless to the faculty," and a joint committee actually recommended "the disposal by sale of the library." Fortunately, however, wiser counsels prevailed, and in 1877 the chairman of the library board reported "a large number of these books are scarce and valuable, rendered so in part by their antiquity. By far the larger number of these volumes were individual contributions, many of them bearing the autographs of distinguished men in our profession whose memory we should never cease to revere." And so the library, of which the faculty is now so justly proud, was saved. One of the true functions of history is to teach us to avoid repeating in the future the errors of the past. It is fortunate that at the present time that particular error of judgment is likely to misguide but few members of our profession, but the warning may even yet not be out of place in some direction.

Of the great men whose names figure in this part of the work, we cannot here speak. The summaries of addresses on various occasions by such men as the late Professor Newell Martin, Dr. John S. Billings, Professor William H. Welch, Professor Osler, and Dr. Abraham Jacobi, to pick out a few stars of the first magnitude from a galaxy, make excellent and profitable reading to-day. The remarks of Dr. Welch and Dr. Jacobi alone present a synopsis of the history of medicine, that might well be taken as a key to study.

The second section contains the names, with short biographical notes, of all who have been on the lists of the society, some twenty-four hundred in all, in the century 1799-1899. In connection with this section may fitly be mentioned the collection of portraits of distinguished men scattered throughout the pages of the work.

Section III is a chronology, beginning with the year 1600, when "Anthony Bagnall, chirurgion," accompanied John Smith in his exploration of Chesapeake Bay, and extending down to the centennial year. The appendix gives the list of presidents, from Upton Scott, 1799-1801, to Samuel C. Chew, 1898-1899. The fourth and concluding section consists of memoirs of Upton Scott, John Archer, Ennals Martin, John Crawford, John D. Godman, Horatio Gates Jameson, George Frick, William Gibson, Charles Frick, Nathan Ryno Smith, Christopher Johnston, and Francis Donaldson. A list of members admitted since 1800 and an exhaustive index close the volume.

Maryland is fortunate in its medical historians. Every one knows Professor Osler's attachment to this subject; so recently as 1902, Dr. Walter

Steiner gave, in the *Johns Hopkins Hospital Bulletin* for August and September, a most fascinating account of the early history of medicine in that State, dealing in detail with the period earlier than that at which Dr. Cordell's main narrative begins; and now Professor Cordell's delightful work comes to emphasize the force of a quotation made from Fuller by Professor Osler in *A Note on the Teaching of the History of Medicine*, in the *British Medical Journal* for July 12, 1902: "History maketh a young man to be old, without either wrinkles or grey hairs; privileging him with the experience of age, without either the infirmities or inconveniences thereof. Yea, it not only maketh things past present, but inableth one to make a rationall conjecture of things to come. For this world affordeth no new accidents, but in the same sense wherein we call it a *new Moon*, which is the old one in another shape, and yet no other then what hath been formerly. Old actions return again, furbished over with some new and different circumstances."

Handbuch der Geschichte Der Medizin. Begründet von Dr. Med. TH. PUSCHMANN, Weiland Professor an der Universität in Wien. Herausgegeben von Dr. Med. MAX NEUBURGER, Docent an der Universität in Wien, und Dr. Med. JULIUS PAGEL, Professor an der Universität in Berlin. Achte und Neunte Lieferung. Jena: Gustav Fisher, 1903. Pp. 465-816. Price 8 marks.

The present installment carries this stupendous work through the chapters on general pathology, including much of modern work and theory, and on pharmacology and toxicology, and then takes up special diseases, historically considered. The diseases of the lungs and heart, the epidemic diseases, nervous diseases, and diseases due to parasites are the ones included in this volume.

It is impossible, of course, to pass these elements separately in review. Suffice it to say, as we have previously said in considering this work, that it is at once the most complete and the most important work on historical medicine that has ever been published. No physician who can read German, and who takes pride in his art and its past, should fail to possess it.

The Crusade Against Tuberculosis. Consumption a Curable and Preventable Disease. What a Layman Should Know About It. By LAWRENCE F. FLICK, M. D., Founder of the Pennsylvania Society for the Prevention of Tuberculosis; President of the Free Hospital for Poor Consumptives of Pennsylvania; Medical Director of the Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis. Philadelphia: David McKay, 1903. Pp. 295. (Price, \$1.00.)

As tuberculosis is so widespread, and the average layman so ignorant of its essential features, too much cannot be written concerning it. The author of this work has made a most careful study of pulmonary tuberculosis, and is in a position to give the public accurate and thoroughly modern information. In this little volume he has covered the ground most carefully, and has given to the layman all that it is necessary for him to know. The book is divided into short chapters, under headings such as Is Con-

sumption Inherited? Immunity, How to Avoid Getting Consumption, etc.

The author points out most strongly the advantages of sanatorium treatment, and emphasizes the fact that the establishment of dispensaries, sanatoria, and hospitals for the treatment of the consumptive poor will have to be the chief means of wiping out this disease. He lays stress upon the fact that it is too much to ask the consumptive to bear the entire burden of protection to others, and says that in all fairness they who ask protection should be willing at least to take part of the burden.

The author has given us a most readable book, written in a clear, concise manner, and well worthy of perusal by both lay and medical men.

Handatlas der Anatomie des Menschen, Mit Unterstützung von WILHELM HIS, Professor der Anatomie an der Universität Leipzig Bearbeitet von WERNER SPALTEHOLZ, a. o. Professor an der Universität Leipzig und Custos der anatomischen Sammlungen. Dritter Band, 2. Abtheilung. Leipzig: S. Hirzel, 1903. Pp. 869.

The present volume of Spalteholz's atlas deals with the nervous system, the brain, and a few of the organs, the eye, the ear, the nose, and the vascular distribution in the skin. As in the preceding volumes, the text is made subsidiary to the illustrations, but, while the former is condensed, it is nevertheless thorough, and the latter surpass in beauty and accuracy anything that has yet appeared on this subject. The drawings are not only very well done, but are wonderfully reproduced, some of them in color. This, the last volume of the series, is a worthy close of a notable work.

The Medical Epitome Series. Microscopy and Bacteriology. A Manual for Students and Practitioners. By P. E. ARCHINARD, A. M., M. D., Demonstrator of Microscopy and Bacteriology, Tulane University of Louisiana, Medical Department. Series Edited by V. C. PEDERSEN, A. M., M. D., Instructor in Surgery and Assistant Anæsthetist at the New York Polyclinic Medical School and Hospital, etc. Illustrated with Seventy-four Engravings. Philadelphia and New York, Lea Brothers & Co., 1903. Pp. 210.

In this small manual the chief facts on the subject of bacteriology are presented. The book is intended for the student, and following each chapter is a list of questions for use in quizzing. According to the title page, however, the work is prepared "for students and practitioners." On account of its condensed form it may at times be convenient for the general physician for quick reference, but there can be no doubt that in its preparation the demands of the student were chiefly considered. The use of the microscope, the general principles of bacteriology and the usual methods and processes for staining, cultivation, and inoculation are given. Then follows a description of the most important pathogenic microorganisms, with a chapter on examination of water, air, and soil. The bacillus of syphilis described by Lustgarten is also included in the list. We appreciate the difficulty in the preparation of a manual of this kind and we feel assured that the undergraduate who studies it will be stimulated to further study in the larger works on the subject.

LIST OF BOOKS RECEIVED.

Miscellany.

The Medical Epitome Series. Normal Histology. A Manual for Students and Practitioners. By JOHN R. WATSEN, A. B., M. D., Professor of Surgery and Gynecology, formerly Professor of Histology, in the Kentucky School of Medicine; Surgeon to the Louisville City, the St. Anthony's and the Kentucky School of Medicine Hospitals, Louisville, Ky. Series Edited by V. C. PEDERSEN, A. M., M. D., Instructor in Surgery and Anæsthetist and Instructor in Anæsthesia at the New York Polyclinic Medical School and Hospital, etc. Illustrated with 114 Engravings. Philadelphia and New York: Lea Brothers & Co. Pp. 229. 1903. [Price \$1.00 net].

Clinical Talks on Minor Surgery. By JAMES G. MUMFORD, M. D., Assistant Visiting Surgeon to the Massachusetts General Hospital, and Instructor in Surgery, Harvard University Medical School. Boston: The Old Bookstore, Incorporated, 27 and 29 Bromfield Street. Pp. 115.

Illinois State Board of Health, Report on Medical Education and Official Register of Legally Qualified Physicians. 1903. Embracing Medical Practice in Illinois, Medical Colleges in Illinois, and Faculties, Medical Societies in Illinois, and Faculties, Pension Examining Boards in Illinois, Requirements for Practice in the United States, Medical Colleges in the United States, Official Register of Physicians. Springfield: Illinois State Register. Pp. clxix-380.

Mammalian Anatomy, With Special Reference to the Cat. By ALVIN DAVISON, Ph. D., Ex-Fellow of Princeton University; Professor of Biology in Lafayette College. With Over 100 Illustrations Made by W. H. Reese, A. M., from the Author's Dissections. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1903. Pp. xi-242. [Price \$1.50 net].

Text-Book of Operative Surgery. By Dr. THEODOR KOCHER, Professor of Surgery and Director of the Surgical Clinic in the University of Bern. Authorized Translation from the Fourth German Edition. By HAROLD J. STILES, M. B., F. R. C. S., Edin., Surgeon to the Royal Edinburgh Hospital for Sick Children, Late Assistant Surgeon, Edinburgh Royal Infirmary, etc. With 255 Illustrations. London: Adam & Charles Black. 1903. Pp. xxv-440.

Traité de Radiologie Médicale. Publié sous la Direction de Ch. BOUCHARD, Membre de l'Institut, Professeur de Pathologie générale à la Faculté de Médecine. In 8° Jésus de 1,100 pages, avec 357 figures dans le texte et 7 planches hors texte. Prix: 30 francs. Préface de M. Ch. BOUCHARD. Historique par MM. Imbert et Bertin-Sans. Livre I. Etude Générale des Rayons X. 1.—Notions générales sur les sources d'électricité et les mesures électriques. Sources de courant continu; piles, accumulateurs, dynamos à courant continu; sources de courant alternatif transformateurs, bobines de Ruhmkorff; sources de courant de haute fréquence; par M. Bordier. Second Part. Pp 545-1,100.

Annual Report of the Health Department of the City of Louisville, Ky., for the Fiscal Year Ending August 31, 1903. M. K. ALLEN, M. D., Health Officer, Louisville, Kentucky. Pp. 77.

Die Entstehung der Zuck erkrankheit und ihre Beziehungen zu den Veränderungen der Blutgefäßdrusen. Von Dr. A. LORAND, Brunnenarzt in Karlsbad. Berlin: Verlag von August Hirschwald, N. W. Unter den Linden, 68. 1903. Pp. 62.

Gesammelte Abhandlungen über Zuckerbildung in der Leber. Von Professor Dr. J. SEEGAN, c. M. der kais Academie der Wissenschaften in Wien. Berlin: Verlag von August Hirschwald, N. W. Unter den Linden, 68. 1904. Pp. 492.

Mt. Sinai Hospital Reports. Volume III for 1901-1902. Edited for the Medical Board by N. E. BRILL, A. M., M. D. 1903. Pp. 572.

Les Nerfs du Cœur, Chez les Tabétiques (Etude clinique et anatomo-pathologique). Par Le Dr. JEAN HEITZ, Ancien Interne des Hôpitaux de Paris. Paris: G. Steingeil, Editeur, Rue Casimir-Delavigne 2. 1903. Pp. 220.

Infectious Diseases, Their Ætiology, Diagnosis, and Treatment. By G. H. ROGER, Professor Extraordinary in the Faculty of Medicine of Paris, Member of the Biological Society, etc. Translated by M. S. GABRIEL, M. D. Illustrated with 43 Engravings. New York and Philadelphia: Lea Brothers & Co. 1903. Pp. iv-874. [Price \$5.75 net].

The New Tenement House Department.—Robert W. de Forest, the tenement house commissioner of New York city, has transmitted to Mayor Low the first report of New York's new tenement house department, in which he says:

"On January 1, 1902, a new department of the city government known as the Tenement House Department was created. Since that time all the tenement houses in New York have been examined and their condition ascertained.

"Tenement conditions in many instances have been found to be so bad as to be indescribable in print; vile privies and privy sinks; foul cellars full of rubbish, in many cases of garbage and decomposing faecal matter; dilapidated and dangerous stairs; plumbing pipes containing large holes emitting sewer gas throughout the houses; rooms so dark that one cannot see the people in them; cellars occupied as sleeping places; dangerous bakeries without proper protection in case of fire; pigs, goats, horses, and other animals kept in cellars; dangerous old fire traps without fire escapes; disease breeding rags and junk stored in tenement houses; halls kept dark at night, endangering the lives and safety of the occupants; buildings without adequate water supply; the list might be added to almost indefinitely.

"The cleansing of the Augean stables was a small task compared to the cleansing of New York's 82,000 tenement houses occupied by nearly three millions of people representing every nationality and every degree in the social scale.

"The task that confronted the department was not, however, limited to this. Without organization, without employees, with all its problems before it, it was on the very day that it came into existence confronted with an organized and vigorous attack in the Legislature upon the fundamental principles of the law for whose enforcement it was created.

"In the period under consideration in this report a new branch of the city government has been organized, its machinery created and a force of about 400 employees trained, disciplined, and educated; far reaching and important advances in legislation have been secured as a result of the department's action, and radical and vicious attempts to break down the tenement laws defeated.

"Living accommodations for 16,768 families, or 83,840 persons, have been provided in sanitary, comfortable and decent houses, each one of which has been built according to law; notorious evasion of and non compliance with the laws has given place to their complete, uniform and impartial enforcement; the evil of prostitution has been practically abolished in the tenement houses; 337,246 inspections have been made.

"The registration of 44,500 owners' names has been secured, thus fixing the responsibility for bad conditions in the tenements; contagious disease has been checked and prevented; 32,825 citizens' complaints have been investigated and the conditions complained of remedied. The existing tenement houses have been frequently and systematically inspected.

...the burden of the department what has been gained—a first step in the disease and death." The most comprehensive report ever been made by a city is shortly to be printed, in two pages, containing many other illustrations.

Stomach and Duodenum.—*Surgery*, July, 1903) calls the disease of that portion of the entrance of the biliary system rather of the character of a local disease, and may be practically included with the former.

The following method of operation for cancer of the stomach is used by the author: (1) The gastric artery is tied, and then the gastrohepatic omentum, close to the liver, from the pylorus to the gastric artery. (2) With fingers in the lesser cavity of the peritonæum the gastrocolic omentum is tied. The duodenum and the pylorus are doubly clamped, division between them with the cautery knife following. The duodenum is surrounded with a silk purse-string suture three-fourths of an inch below the divided end, the cauterized area is sutured with catgut, the stump inverted, and the purse-string suture tightened. (3) The gastrocolic omentum is tied near the origin of the left gastroepiploic artery, which is also tied. (4) A groove made with heavy pressure forceps separates the dome from the remainder of the stomach. A shoemaker's stitch with catgut on two needles in the groove protects the retained portion of the stomach and makes section of the stomach with the actual cautery bloodless. The line of suture is turned in by a continuous silk Cushing suture, which may be supported by a few Halsted silk sutures. (5) Union of the gastric pouch with the jejunum. (6) Enterostomy between the two limbs of jejunum, short-circuiting the biliary and pancreatic secretions at the level of the origin of the jejunum. (7) The remainder of the gastrocolic omentum is attached to the posterior wall and the abdomen closed.

The Structures Taking Part in Menstruation.—Dr. E. E. Montgomery read a paper at a recent meeting of the Obstetrical Society of Philadelphia in which he discussed the occurrence of menstruation, the phenomena of increased arterial tension, and the tendency of weak vessels to rupture in different portions of the body, saying that where the hæmorrhage following was sufficient to reduce the blood tension such hæmorrhage would take the place of menstruation and be known as vicarious menstruation. He discussed the various theories as to the cause of its periodical occurrence, referred particularly to the investigations of Fraenkel, which disclosed the glandular character of the corpus luteum, and the probability that its secretion produced an influence upon the blood and nervous system sufficient to induce the recurrence of menstruation where fecundation had not taken place and to assist in the re-

tention and nutrition of the ovum when fecundated. He asserted that menstruation did not take place in the absence of the ovaries, and that the menstrual flow occurred from the Fallopian tube as well as from the uterine mucous membrane. This was evident in the anatomical structure of the tube from the fact that blood was found in the tube in women who had undergone an operation during menstruation; patients in whom fistulous tracts communicated with the tube had a bloody discharge during the menstrual flow. This view, however, had been combated and the occurrence of hydrosalpinx presented as evidence against it, the fluid here being perfectly clear, which, it was asserted, indicated that menstruation did not take place into the tube, but such cases were examples of diseased tubes in which the inflammatory changes had rendered the vessels more resistant and less likely to rupture. In his opinion many cases of hæmatosalpinx were the result of the retention of menstrual products.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending December 5, 1903:

Smallpox—United States			
Place		Cases	Deaths
Alabama—Mobile	Nov. 21-28	6	
California—Los Angeles	Nov. 14-21		1
Illinois—Chicago	Nov. 21-28	3	
Louisiana—New Orleans	Nov. 21-28	2	Imported
Massachusetts—Haverhill	Nov. 21-28	1	
Massachusetts—Lowell	Nov. 21-28	1	
Michigan—Detroit	Nov. 21-28	1	
New Hampshire—Manchester	Nov. 21-28	2	
New Jersey—Camden	Nov. 21-28	2	
Ohio—Cincinnati	Nov. 21-28	2	
Ohio—Youngstown	Nov. 21-28	9	
Pennsylvania—Johnstown	Nov. 21-28	6	1
Pennsylvania—Philadelphia	Nov. 21-28	70	11
Pennsylvania—Pittsburgh	Nov. 21-28	25	7
Pennsylvania—Reading	Nov. 23-30	3	
Tennessee—Memphis	Nov. 21-28	8	
Smallpox—Foreign			
Ecuador—Guayaquil	Nov. 7-14		1
Great Britain—London	Nov. 7-14	16	
Great Britain—Newcastle-on-Tyne	Nov. 7-14	18	
Great Britain—Nottingham	Nov. 7-14	4	
Italy—Catania	Nov. 6-12		1
Italy—Palermo	Nov. 7-14	1	
Russia—Moscow	Oct. 31-Nov. 7	1	
Turkey—Smyrna	Nov. 1-8		16
Yellow Fever—United States			
Texas—Cannel	Nov. 26	4	
Texas—Laredo	Nov. 23-Dec. 1	6	5
Texas—Minera	Nov. 28	2	1
Texas—San Antonio	Nov. 23-Dec. 1	5	5
Yellow Fever—Foreign			
Mexico—Ciudad Victoria	Nov. 8-14	9	7
Mexico—Linares	Nov. 8-14	74	6
Mexico—Merida	Nov. 8-14	3	
Mexico—Minchova	Nov. 17-18	2	
Mexico—Nuevo Laredo	Nov. 8-14		2
Mexico—Reata	Nov. 26	1	
Mexico—Veracruz	Nov. 15-28	14	9
Cholera—Foreign			
Turkey—Syria	Nov. 7		Prevailing.
Plague—United States			
California—San Francisco	Nov. 12	1	1
Plague—Foreign			
Egypt—Alexandria	Oct. 24-31	3	2
Egypt—Sammalut District	Oct. 24-31	2	
India—Bombay	Oct. 26-Nov. 3		45
India—Karachi	Oct. 18-25	16	14
India—Karachi	Oct. 25-Nov. 1	12	11
Yokohama	Oct. 21-27	1	1
Mauritius	Oct. 19-26	117	55

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department of the United States Army for the week ending December 5, 1903:

- APPEL, AARON H., Major and Surgeon. Sick leave further extended two months.
- BRECHEMIN, LOUIS, Major and Surgeon. Will proceed to San Francisco, Cal., to take charge of the Medical Supply Depot.
- BUSHNELL, GEORGE E., Major and Surgeon. Leave of absence extended thirty-four days.
- BYRNE, CHARLES B., Colonel and Assistant Surgeon-General. Will proceed to Omaha, Neb., for duty as Chief Surgeon.
- COX, WALTER, First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Banks, Mass., and ordered to Fort Reno, Oklahoma Territory.
- EZWURZEL, GEORGE M., First Lieutenant and Assistant Surgeon. Assigned to duty at Fort Banks, Mass., having been relieved from further duty in the Division of the Philippines.
- FARR, CHARLES W., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Reno, Oklahoma Territory, and ordered to Fort Mason, Cal.
- GIRARD, JAMES B., Colonel and Assistant Surgeon-General. Will proceed to San Antonio, Tex., for duty as Chief Surgeon.
- HOWARD, DEANE C., Captain and Assistant Surgeon. Detached to represent the Medical Department of the U. S. Army at the meeting of the American Röntgen Ray Society, to be held in the University of Pennsylvania, Philadelphia, Pa., December 9 and 10, 1903.
- HUTTON, PAUL C., First Lieutenant and Assistant Surgeon. Ordered to report for duty at Peking, China.
- IVES, FRANK J., Major and Surgeon. Granted twenty-one days' leave of absence, to take effect upon his arrival in San Francisco.
- KELLER, WILLIAM L., First Lieutenant and Assistant Surgeon. Relieved from further duty in the Division of the Philippines and ordered to Fort Riley, Kan.
- KENDALL, WILLIAM P., Major and Surgeon. Ordered to accompany the insane from the Presidio of San Francisco, Cal., to the Government Hospital for the Insane, Washington, D. C.
- MARROW, CHARLES E., First Lieutenant and Assistant Surgeon. Granted fifteen days' leave of absence, to take effect on the completion of the examination for promotion.
- REYNOLDS, F. P., Captain and Assistant Surgeon. In addition to his present duties at the U. S. General Hospital, Washington Barracks, will report in person to Colonel Charles L. Heizman, Assistant Surgeon-General, President of the faculty of the Army Medical School, Washington, D. C., for duty as instructor in the hospital corps drill and assistant instructor in the duties of medical officers and medical department administration.
- ROBERTS, WILLIAM, First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Miley, Cal., and ordered to Manila, P. I.
- ROCKHILL, E. P., First Lieutenant and Assistant Surgeon. Granted thirty days' leave of absence, to take effect on December 18, 1903.
- SHAW, HERBERT G., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Miley, Cal., and ordered to Manila, P. I.
- SHOCKLEY, M. A. W., First Lieutenant and Assistant Surgeon. Granted leave of absence for thirty days from November 24, 1903.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending December 5, 1903:

- ALFRED, A. R., Surgeon. Commissioned surgeon, with rank of lieutenant, from January 4, 1903.
- CARPENTER, D. N., Surgeon. Ordered to the Naval Hospital, Navy Yard, Washington, D. C.

GRUNWELL, A. G.,
pital, Washir
apolis.

NOYES, E. R.,
October 20,
Hygiene and

Births,

BLACKWOOD—S
day, November 27

BODINE—WILLI
nesday, Novembe
Williams.

HARRIS—THOM
nesday, Novembe
Con Overton Tho

HEMMETER—EL
Wednesday, Nov
and Miss Mae El

ORR—BURKWALTER.—In Philadelphia, Pennsylvania, on Wednesday, November 25th, Dr. Charles Albert Orr and Miss Lillian Alberta Burkwalter.

RUCKER—LIGHTNER.—In Louisville, Kentucky, on Wednesday, November 25th, Dr. Thomas H. Rucker and Mrs. Josephine Lightner.

Died.

BEATTY.—In Kennesaw, Georgia, on Thursday, November 26th, Dr. Douglas P. Beatty.

BRISTOL.—In Webster Groves, St. Louis, Missouri, on Saturday, November 28th, Dr. B. J. Bristol, in the seventy-second year of his age.

BROWN.—In Hustonville, Kentucky, on Tuesday, December 1st, Dr. Hawkins Brown, in the seventy-fourth year of his age.

BRYANS.—In Jackson, Georgia, on Tuesday, November 24th, Dr. Robert G. Bryans.

CONROY.—In St. Paul, Minnesota, on Sunday, November 29th, Dr. Anthony F. Conroy, in the fortieth year of his age.

COX.—In Coss Creek, Kentucky, on Tuesday, November 24th, Dr. O. N. Cox, in the seventy-fifth year of his age.

DUPREE.—In Westmoreland, Alabama, on Friday, November 27th, Dr. W. J. Dupree, in the forty-ninth year of his age.

FEE.—In Kansas City, Missouri, on Monday, November 30th, Dr. John Fee, in the sixty-eighth year of his age.

HARCOURT.—In Brooklyn, N. Y., on Monday, November 30th, Dr. Joseph M. Harcourt, in the eighty-first year of his age.

HEINIMAN.—In Oakland, California, on Thursday, November 26th, Dr. Michael Heiniman.

HOLMES.—In Orange, New Jersey, on Monday, November 30th, Dr. William H. Holmes, in the seventieth year of his age.

HOWARD.—In New York, N. Y., on Friday, December 4th, Dr. Frederick S. Howard, in the sixty-first year of his age.

HUTTON.—In Elizabeth, Illinois, on Sunday, November 22nd, Dr. William Hutton, in the fifty-ninth year of his age.

MURPHY.—In Kansas City, Missouri, on Wednesday, November 25th, Dr. Hugh C. Murphy, in the sixty-first year of his age.

OGDEN.—In Wheeling, West Virginia, on Friday, November 27th, Dr. B. N. Ogden.

PAYNE.—In Cleveland, Ohio, on Monday, November 23rd, Dr. F. A. Payne.

ROBERTSON.—In Calhoon, Kentucky, on Tuesday, November 24th, Dr. D. D. Robertson, in the sixty-ninth year of his age.

STREETER.—In Rochester, N. Y., on Monday, November 30th, Dr. Henry W. Streeter, in the fifty-ninth year of his age.

WHITE.—In Somerville, Massachusetts, on Thursday, November 26th, Dr. Horace C. White, in the sixty-eighth year of his age.

New York Medical Journal AND Philadelphia Medical Journal.

CONSOLIDATED.

A Weekly Review of Medicine

VOL. LXXVIII, NO. 25.

SATURDAY, DECEMBER 19, 1903

WHOLE NO. 1307.

Original Communications

ON THE ÆTIOLOGY OF PULMONARY TUBERCULOSIS IN ITS RELATION TO DISEASES OF THE NOSE AND THROAT.*

By W. FREUDENTHAL, M. D.,

NEW YORK,

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Although science has of late made great strides in the ætiology of disease, we are still in much doubt as to one of the principal maladies to which humanity falls a prey, i. e., tuberculosis. My remarks will be confined to tuberculosis of the air passages.

While it is well known that the tubercle bacillus must first find a favorable soil somewhere, in order to initiate the tuberculous process, I believe it is also accepted that another factor is required for its further development, viz.: a general trophic paresis of the entire system. There must be present some *humoral* defect or insufficiency in the tissues of the organism, which as yet has not been demonstrated in the blood circulation, but of which I have no doubt we shall hear more in the future. Thus far, nothing has been published that could give us any satisfactory evidence about this lack of good circulation, but nevertheless it does exist. When such a person with trophic and circulatory insufficiency, as I might call it, develops in any part of the body favorable conditions for the propagation of microbes, we are sure that tubercle bacilli will flourish there and a local, and afterward a general, infection is bound to take place. I have demonstrated this for the retropharynx and believe that in many cases the primary infection takes place there, a belief that has been confirmed by prominent men here and abroad.

I would ask your indulgence in reverting to

these investigations, described in a former paper, and would recall to your minds the important rôle that the nose and throat play in the causation of tuberculosis.

Let us begin with the nasopharynx. This is, as you well know, a cul de sac situated between the nose and pharynx. Its function is, therefore, to assist in the physiological action of the pharynx as well as of the nose. The prominent part that the nasopharynx plays in respiration, I have shown elsewhere. It is of still greater importance than the nose for the thorough moistening of the inspired air. It has, on the other hand, the undoubted task of entrapping all foreign bodies which have passed unchecked through the gates of the nose. The more the nasal mucosa has undergone certain pathological changes, the oftener will this occur. Suppose we have a wide, atrophic nose. Here, the current of air will pass almost unhindered in a straight direction, until it strikes against the posterior wall of the nasopharynx. Through this almost vertical line of force, a light whirl motion arises, in consequence of which the inspired air remains here longer than in the nose. Thus, to the foreign bodies contained in the air—in which we count microorganisms of all kinds—an occasion is given for settling at this point. The wider the nasal passages and the drier the nasal mucosa, the more bacteria will settle in the nasopharynx, and vice versa.

If we now ask whether there are, in the nasopharynx, any further predisposing conditions of an anatomical or physiological nature that influence favorably the settling and development of bacteria, we must answer, yes. Before all is to be mentioned here the considerable accumulation of glandular tissue, the surface of which is provided with crypts. True, the whole mucosa is covered with ciliated epithelium, but in younger individuals and in the crypts we find flat epithelium. We should, therefore, expect to find bacteria there in normal conditions, but much more so in pathological conditions. Thus the nasopharynx would form a reservoir in which foreign bodies.

* Read before the Fourteenth International Medical Congress (Section on Medicine), Madrid, 1902.

etc., would be retained for the protection of the whole organism.

This occurs mostly in the dry and atrophic conditions of the nose. If, on the other hand, hypertrophy exists, we are surprised to note how well such persons can breathe, in spite of the fact that there is such a marked narrowing of the nasal passages present. But the fact is that single hypertrophies give way easily to the current of air, permitting of physiological nasal respiration, while solid obstructions, such as spurs or deviations of the septum, work in the opposite way. Indeed, I am almost inclined to believe that the breathing is equally interfered with, whether we have to deal with solid obstructions of the nose rendering it impossible for any current of air to pass through, or with very wide and atrophic nasal chambers. In the latter case the nasal passages are sometimes of extraordinary width, and still the patients are unable to breathe through them in a physiological manner. They feel hungry for air. This is due to the fact that the air passes directly over the dry mucosa of the nose and pharynx without undergoing those changes which assimilate it, so to speak, for breathing purposes. In other words, the air in passing through such a nose is not properly warmed, moistened, and filtered. Allow me to give you an example:

Mr. I. E. called on me first on November 2, 1902. He has to work a great deal with wood alcohol and complains of having the taste of it in his mouth constantly. I found on examination an otitis media catarrhalis chronica on both sides, and an atrophy of the entire mucous membrane and of the bones on the left side of his nose. On the right side there was present a slight hypertrophic rhinitis. A postnasal catarrh was also found. I swabbed out his retropharynx and applied some mild solution in the form of a tampon to his left nostril. This was repeated on the 9th and 16th of November, during which time he was free from the taste of alcohol, i. e., for two weeks. *November 23, 1902.*—Patient complained that during the past week he had had exceptionally much work with wood alcohol and experienced the taste again, more so on the left side of his throat, while on the right it was hardly noticeable. At that time he also mentioned that when he first developed the unpleasant alcoholic taste, the sensation started on the left side and only later spread to the other side and all over the mouth and throat.

Now what does this case teach us? It proves the correctness of my old theory that a rhinitis sicca, and even more an atrophic rhinitis, unfits the nose entirely for respiration. Thus here, the alcohol vapor was not absorbed by the membrane of the left nostril, but went further down to the

pharynx. This can, of course, be overcome to a certain degree by treatment; but if left alone, it will have the effect mentioned above. One ought to expect, under these circumstances, that the microorganisms being carried through the nose with the air current with hardly any impediment, would lodge in the middle or lower air tract. This occurs occasionally, and we then have a primary tuberculosis of the tonsils or of the larynx. As a rule, however, they are retained in the retropharynx for the following reasons: In all atrophic conditions of the nose, a postnasal catarrh is present. Now, when the tubercle bacilli strike the retropharynx the conditions are often favorable for their adhesion at this place, and if they remain for some time they will then become ensheathed in tenacious stagnating mucus. Thus protected, they have an excellent opportunity for further development. The bacilli then pass through the intact mucous membrane of the retropharynx without leaving a trace of a local tuberculous affection behind them. That such a process is possible has long since been proved by Cornet, Bollinger, and others. Sometimes we do find local tuberculosis here, as for example in adenoids, or as I showed some six years ago, in ulcerations at the vault of the pharynx; but these findings are the exceptions. As a rule, the bacilli penetrate the deeper tissues and enter the *lymph current*. Swelling and suppuration of the glands of the neck are not unusual, and are evidences of the path taken by the tubercle bacilli. That these lymphomata colli are in direct connection with certain affections of the retropharynx, as for example the adenoids, is demonstrated by a case like the following:

N. McC., twelve years of age, was brought to me from Newark, N. J., with a lymphoma colli. I opened it, removed a quantity of pus and all diseased tissue, and sent him to the mountains for four months, where he was under the best care possible. The boy had slight adenoids which I did not remove at once, as the parents would not give their consent. The wound did not close, and finally, after three months more had elapsed, I operated on the adenoids, with the result that within two weeks the wound of the neck had healed thoroughly. The boy is now in his seventeenth year and well and strong.

I am under the impression that since adenoids are removed so freely, glandular swellings of the neck have become more rare. I am not positive whether further statistics will verify this.

If, for some reason or other, the path of the tubercle bacillus downward is closed up, by adenoids or other causes, it makes its way to the cranial cavity, where a tuberculous meningitis, so

frequent among children, is set up. This idea of mine is as yet only a theoretical deduction which I cannot prove, but which seems very plausible to me. But this only apropos.

Now I have shown elsewhere that these atrophic and dry "catarrhs" of the nose and throat depend upon the climate we live in, i. e., the climate of our habitations. The drier the atmosphere, the more frequent these "catarrhs." This

dryness is noted in the majority of houses in New York and makes itself felt, not only in the nose and throat, but elsewhere. The dry lips, the inspissated wax in the ear, the early loss of hair, the epistaxis in winter, are symptoms of an often prevailing condition, which I called xerasia (*ἡ ξηρασία* dryness).

In order to ascertain the effect of this xerasia, as we have it here in all places provided with a

TABLE I.—MALES.

No.	Age	OCCUPATION.	UPPER.	TEETH.	LOWER.	NOSE.	REMARKS
1	29	Peddler				Slight bleeding.	
2	38	Tailor				Rhinitis sicca.	
3	30	Various work				Rhinitis sicca.	
4	40	Presser	Several gone.		Caries	Rhinitis sicca.	
5	20	Dry goods clerk				Rhinitis sicca.	
6	10	School				Rhinitis sicca.	
7	32	Cloakmaker				Rhinitis sicca.	
8	29	Peddler			Several lost.	Atroph. dextra, deviated septum, nose bleeding.	
9	25	Cloaks			Many gone.	Atroph. dextra, nose bleeding.	
10	37	Operator			Most carious		
11	47	Waiter	Six missing		Six missing		
12	40	Waiter	All gone.		Few missing	Atroph. sinistra.	
13	42	Tailor	Few missing.		Few missing	Rhinitis sicca.	
14	32	Stable work	Two missing.			Atroph. sinistra.	Retrobulbar tumor (right).
15	37	Roofer	Twelve missing.		Twelve missing.		
16	23	Storekeeper			Two missing.	Rhinitis sicca.	
17	32	Tailor	Many missing.			Atroph. sinistra.	Nose bleeding.
18	30	Operator	Few caries.		Slight caries.	Rhinitis sicca.	Nose bleeding.
19	32	Travel salesman.	All missing.		All but one miss		
20	43	Peddler and nurse	Almost all missing		ing		
21	23	Locksmith	Four missing.		Many missing.	Rhinitis sicca dextra.	Nose bleeding.
22	39	Storekeeper	All missing.		Few missing.	Rhinitis atrophica.	
23	58	Cowboy				Rhinitis atrophica exostosis.	Nose bleeding.
24	28	Cloakmaker	Two missing.		Several carious.	Rhinitis atrophica.	
25	17	Jewelry maker.	Two missing.		Several carious.		
26	32	Tailor				Hypertrophic rhinitis.	Nose bleeding.
27	20	Clerk				Atroph. rhinitis.	
28	14	School				Atrophic rhinitis.	
29	50	Peddler	Several missing.		Several missing.		
30	19	Grocery clerk.				Atrophic rhinitis.	
31	35	Operator	Five missing.		One carious.	Slight rhinitis sicca.	
32	30	Cutter	Two missing.		Two missing.	Slight rhinitis sicca.	Nose bleeding sometimes.
33	40	Tailor					Farm work ten years ago.
34	36	Tailor	Several missing.		Several missing.		
35	23	Tailor				Polypi	
36	17	Cigarette maker.					
37	62	Presser	Several missing.		Several missing.	Rhinitis	
38	33	Operator			Two missing.	Rhinitis sicca.	
39	35	Cigar maker				Atroph. dextra and exostosis sinistra	Nose bleeding sometimes.
40	63	Tailor	Almost all gone.		Several missing.	Rhinitis sicca.	
41	30	Embroideries	Many gone.			Marked atroph. dextra and sinistra	Nose bleeding sometimes.
42	31	Tailor	Caries		Caries	Slight atroph.	
43	20	Clerk			Several missing.	Atroph. dextra.	
44	19	Cloakmaker	One missing.			Atroph. dextra and deviatio septi.	Nose bleeding sometimes, incipient perforating ulcer of septum.
45	21	Stock clerk.				Rhinitis sicca.	Nose bleeding sometimes.
46	19	Stock clerk.	Several carious.				
47	33	Carpenter.	Two missing.			Rhinitis sicca, deviatio and exostosis dextra.	
48	22	Iron worker.	Caries			Rhinitis sicca, deviatio and exostosis dext.	
49	37	Walter	Several missing.		Caries	Rhinitis sicca.	
50	20	Chair factory				Atrophy	Occasional nose bleeding.
51	27	Clerk				Atroph. dextra	Occasional nose bleeding.
52	32	Tailor				Hypertroph. dextra, atroph. sinistra	
53	25	Peddler				Atroph.	
54	30	Presser			Many missing.		
55	1	School	Caries			Exostosis dextra.	
56	51	Butcher	Caries		Most missing.	Atroph. dextra and sinistra.	
57	13	School			Caries	Hypertroph.	
58	31	Tailor	Caries				
59	37	Operator			Few missing.	Rhinitis sicca.	
60	19	Presser	Most carious.				Nose bleeding.
61	17	Suspender	One missing.				
62	24	Operator	All missing.		Two missing.		
63	48	Presser	One missing.		Many missing.		
64	46	Operator	Several missing.			Atroph.	
65	27	Clerk	One missing.		Few missing.	Atroph.	
66	28	Operator	Many missing.		Slight caries.		
67	32	Porter	Almost all missing			Rhinitis sicca.	
68	20	Clerk			Two carious.	Hypertroph. dextra and atroph. sinistra	
69	30	Furrier	Six missing.		Two missing.		
70	20	Bookkeeper				Rhinitis sicca.	Nose bleeding sometimes.
71	30	Bookkeeper	Several missing.		One carious.	Atroph.	
72	22	Tailor	Three missing.			Rhinitis sicca.	Nose bleeding

central heating plant, I examined repeatedly all the patients of the Bedford Sanatorium for Consumptives, and obtained most peculiar results. I included in these investigations not alone the nose and throat, but also the teeth, lips, hair, and ear. The last two I shall omit here for obvious reasons. I refer also in my tables to the condition of the teeth and the lips, as it helps to prove my theory that dryness of the air is the main factor in producing local affections of an atrophic character and afterwards, in a good proportion of cases, tuberculosis as well. I would refer you to a paper

On March 30, 1902, I made similar examinations on 108 patients. There were 40 (28 male and 12 female) affected in the same way as above. I have omitted that table, as it does not bring anything new.

More important, however, are Tables III and IV, representing the results of examinations made in November, 1902. There we have recorded the diagnosis of the pulmonary condition as made by Dr. Herbert at the Bedford Sanatorium.

It would be very interesting from these data

TABLE II.—FEMALES.

No.	Age	OCCUPATION.	TEETH.		NOSE.	REMARKS.
			UPPER.	LOWER.		
1	12	School		Few missing.	Purulent rhinitis.	
2	15	School				
3	20	Shop	Caries		Atrophía dextra.	
4	28	House	Caries	Few missing.	Atrophía dextra, exostosis sinistra	
5	21	Embroideries			Hypertrophía dextra and sinistra.	
6	18	Underwear	Caries	Caries		
7	25	Operator		Many missing.	Atrophía sinistra and exostosis dextra	Frequent nose bleeding.
8	25	Operator	Most missing.		Adenoids	
9	22	Operator	One missing.		Atrophía dextra and sinistra.	Nose bleeding.
10	18	House	All missing.	Caries	Deviatio sinistra.	
11	19	Pocketbooks	One missing.	One missing.	Rhinitis sicca sinistra.	
12	23	Clothing	Several missing.	Several missing.		
13	19	Servant				
14	17	Nurse			Rhinitis atrophica.	
15	19	Servant	Few missing.		Rhinitis atrophica dextra.	
16	20	Shop	Few missing.		Rhinitis atrophica dextra.	Deviatio septi sin.
17	23	Shop	Many missing.	Many missing.	Rhinitis atrophica sinistra.	
18	25	Shop	Two missing.		Ozena	
19	18	Shop	Many carious.	Many carious.	Rhinitis	
20	31	House	Many missing.	Many carious.		
21	32	House	All missing.	All missing.		
22	30	House	Caries		Rhinitis atrophica.	
23	41	House	Caries		Atroph. dext. and sinist., marked	
24	27	House			Exostosis sin.; rhinitis atrophica	
25	49	House	All carious.		Rhinitis atroph. dext. and exostosis sin.	
26	16	School	Caries	Caries	Atrophía dext. and sinist.	
27	14	School			Slight atrophía dext. and sin.	
28	24		Caries	Caries	Atrophía dext. and sinist., marked	Nose bleeding.
29	23	Shop	Three missing.		Rhinitis sicca.	
30	36	House	All missing.	Few missing.	Atrophía dext. and sin., slight.	Nose bleeding.
31	35	House	Caries	Caries		
32	21	Shop	Four missing.			
33	18	Shop	Several carious.		Slight atrophía.	
34	20	Shop			Atroph. dext. and exostosis sin.	
35	32	House	Caries			Nose bleeding.
36	27				Purulent rhinitis.	
37	25		Three missing.		Purulent rhinitis.	
38	9		Caries	Caries		

read by me before this congress, on Atrophic Rhinitis,¹ which gives all the details of this question, and shall now present a summary of the first examination of February, 1902:

We have in Tables I and II 110 patients, of whom 43, viz., 30 male and 13 female, show either a dry condition in the nose or a more advanced process, viz.: an atrophic state. All these naturally have a postnasal catarrh as well.

You will notice that in all these statistics we find more affections of the upper teeth than of the lower. I attribute this, first, to the anatomical fact that the lower teeth are kept moist by the salivary ducts and glands, which does not apply to the same extent to the upper. Secondly, in mouth breathers, the latter are more exposed to the air than the lower teeth.

to determine how often the affection of the nose and that of the lungs were on the same side, and to note whether the one does not depend on the other. Although many of these patients represent an advanced stage and cannot figure in this particular question, we cannot help noticing at the first glance how often the pulmonary and nasal lesions are on the same side. But we find, aside from these considerations, in the last two tables 122 patients, of whom 32 (27 male and 5 female) had dry, atrophic nasal affections, or one fourth of all.

We see from these figures that the number of patients suffering in this manner was larger in February and March, i. e., at the end of the winter, than in November, at a time when the cold weather had hardly set in. Is that not a further proof of my contention that it is the dry hot air

¹ *Annals of Otology*, June, 1903.

TABLE III.—MALES.

No.	Age	OCCUPATION.	TEETH.		NOSE AND THROAT.	REMARKS, DIAGN. PULMONALIS
			UPPER.	LOWER.		
1	30	Presser			Exostosis left.	Infiltration pulm. dextra.
2	46	Druggist	Caries	Most gone.	Deviation septi to left.	Dubia.
3	25	Cigars			Exostosis dextra.	R. and l. apex.
4	30	Furrier	Caries	Caries	Rhinitis sicca.	Epistaxis, infiltration of r. and l. sup. lobe.
5	41	Waiter	Gone	Gone		Right apex.
6	20	Clerk			Exostosis sin., rhinitis hypertr.	Left apex.
7	24	Cutter			dex. and sin.	Infiltration, consolid., left lung and r. apex.
8	27	Blacksmith			Epistaxis dex. and rhinitis sicca.	Consol. of right sup. lobe; infiltration of rest of lung.
9	30	Printer	Caries	Caries	Deviation sinist. and left nostril closed	L. sup. lobe.
10	32	Tailor			Rhinitis sicca.	Epistaxis daily; infiltration r. sup. lobe and apex.
11	36	Tailor	Six gone.	Five gone.		Infiltr. of both sup. lobes.
12	36	Tailor	Caries	Caries		Dubia.
13	39	Tailor	Caries	Caries	Exostosis sin.	Entire right lung, base of left lung.
14	18	School			Exostosis dext.; atrophie sinis.	Infiltr. of entire left lung.
15	36	Finsmith	One-half gone.	One-half gone.	Rhinitis sicca.	Epistaxis every second day, left apex.
16	19	Cutter			Deviation sinist.	Infiltr. r. inferior lobe.
17	16	Office boy.				Dubia.
18	25	Musician			Exostosis sinis.	Infiltr. r. lung.
19	16	Shirt maker.			Rhinitis atrophica.	Infiltr. r. lung, right sup. lobe.
20	18	Gas mantles.				Infiltr. r. lung.
21	20	Cutter				Left apex?
22	28	Clerk	Caries			Consol. and infiltr. r. lung.
23	12	School	Caries	Caries	Hypertrophy dextra; atrophy sinist.	Infiltr. r. sup. lobe.
24	21	Factory			Atrophie, both sides.	Infiltr. r. lung; sealed tuberc. cavity at right apex.
25	30	Operator			Slight atrophy.	Right epistaxis.
26	43	Tailor	Caries	Caries	Slight exostosis sinist.	Infiltr. left sup. lobe.
27	18	Salesman				Right apex.
28	26	Tailor	Caries	Caries	Atrophy, left.	Left apex.
29	39	Carpenter	Caries		Perforated septum; deviation of septum to right.	
30	31	Porter	Caries	Caries	Deviation to right.	No lues; r. and l. sup. lobe.
31	19	Presser			Nose bleeding from lower turbinated, both sides.	Infiltr. r. sup. lobe.
32	22	Tinsmith	Caries	Caries	Hypertrophy of l. middle turb.	Infiltr. r. lung.
33	18	Office boy.			S-shaped deviation to both sides.	T. b. c. adenitis and t. b. c. osteitis.
34	20	Peddler			Exostosis l., hypertr. l. l. turb.	Inf. l. sup. lobe.
35	26	Tailor	Caries	Caries	Atrophy r., deviation to left, closing up that side.	Inf. entire l. lung, right apex.
36	39	Waiter	Caries		Slight atrophy both sides, many crusts	Inf. r. lung post., r. and l. apex.
37	30	Peddler			Occasional epistaxis, slight atrophy	Inf. r. lung, l. sup. lobe.
38	33	Peddler		Caries	Atrophy l.	Consol. r. sup. lobe; infiltr. of rest of lung.
39	17	Office boy.			Exostosis both sides; l. side closed	Dubia.
40	50	Peddler	Caries	Caries		R. sup. lobe.
41	40	Presser			Exostosis, left.	R. sup. lobe.
42	30	Bookkeeper	Caries		Rhinitis atrophica.	
43	52	Cap maker.			Deviation to right.	R. and l. apex, left lower lobe.
44	23	Tailor			Exostosis, left.	L. sup. lobe.
45	32	Tailor				R. and l. apex.
46	97	Operator	Caries	Many gone.	Exostosis r., posterior hypertrophy of lower turb. r.	R. apex.
47	35	Peddler	Most gone.	Six gone.	Rhinitis sicca.	Right epistaxis; r. sup. lobe.
48	42	Tailor	Most gone.	One-half gone.		Inf. l. sup. lobe.
49	45	Presser				R. apex.
50	43	Canvasser				R. inf. lobe.
51	28	Silk weaver.	Caries	Caries		Dubia.
52	55	Tailor			Rhinitis sicca.	Right epistaxis; r. sup. lobe
53	26	Presser			Marked atrophy r.?	Pleurisy r.
54	27	Salesman	One missing.	Two missing.	Rhinitis atrophica.	Infiltr. both sup. lobes.
55	31	Leather work.	Many gone.	Many gone.		R. lower lobe; l. apex.
56	21	Clerk			Exostosis, right.	R. sup. lobe.
57	22	Printer			Rhinitis sicca, more right.	Inf. both sup. lobes.
58	18	Clerk			Rhinit. atrophica.	Epistaxis, inf. l. lung.
59	15	School			Exostosis r., deviatio l.	L. lung.
60	20	Weaver			Exostosis r.	Inf. l. lung.
61	14	School			Rhinitis hypertr., more on right.	R. sup. and l. inf. lobe.
62	42	Presser				
63	43	Cigars			Deviation septi r.; hypertr. of r. middle turb.	Inf. entire r. lung.
64	28	Trunk maker.				Inf. r. sup. lobe.
65	18	Operator		Three missing.	Hypertr. of r. lower turb.; rhinitis atr. l.	Inf. l. sup. lobe and r. apex.
66	36	Tailor	Three gone.	Four gone.	Hypertr. of both middle turb. special left.	Inf. of l. lung.
67	19	Tailor		Two gone.		R. and l. apex.
68	17	Peddler			Rhinitis atr. r.	Dubia.
69	61	Peddler	Most gone.	Most gone.		Apex dextra.
70	29	Operator			Marked exostosis l.	Consol. r. sup. lobe.
71	19	Mattress maker.			Exostosis r.	T. b. c. cystitis.
72	36	Carpenter	Three gone.	Five gone.	Exostosis l.; hypertrophy l. lower turb.	
73	21	Clerk			Exostosis r.	R. epistaxis; inf. of r. and l. lung.
74	10	School			Rhinitis atr. and pur. empyema.	Inf. r. lung and l. lower lobe.
75	46	Shoemaker	Two gone.	Two gone.		Inf. r. lung and l. inf. lobe.
76	29	Tailor	Caries	Caries		
77	42	Tailor	Caries; one gone.	Caries; two gone.	Hypert. r. lower turb.	
78	10	School				Inf. l. lung and r. apex.
79	38	Tailor			Rhinitis sicca, scab formation.	Epistaxis.
80	19	Tailor			Hypert. l. lower turbinated.	Slight infiltr. l. sup. lobe.
81	29	Tailor			Rhinitis hypertr. r.; deviatio septi l.	
82	35	Porter	Caries	Caries	S shaped deviation of sept atroph. rhin.	Diffuse inf. r. and l. lung.
83	36	Cigars	Caries	Caries	Exostosis l.	Infiltr. r. and l. sup. lobe.
84	20	Factory		Two gone.	Exostosis r.	Inf. l. lung.

of our rooms in winter that produces these bad effects? However, these data are so appalling that they must surprise everybody. To me it is a matter of conviction that the dry and atrophic condition of the nose and throat produced by our unhygienic system of heating, is one important factor in laying the foundation for tuberculosis, and if we want to treat consumptives rationally, we must begin with the upper air tract. If we eliminate this factor, we shall find it easier in many cases to reach the deeper seated lesions.

REMARKS ON MECHANOTHERAPY, MASSAGE, BONE SETTING AND OSTEOPATHY.*

By JOHN MADISON TAYLOR, A. B., M. D.,

PHILADELPHIA.

The public, on whom practitioners of medicine depend for their support, are not slow to criticise the means employed, at least in America. We are a wide awake people, lacking reverence, full of pride in our quick intelligence, and as yet prone

TABLE IV.—FEMALES.

No.	Age	OCCUPATION.	TEETH.		NOSE.	DIAGN. PULM.
			UPPER.	LOWER.		
1	22	Dressmaker				
2	19	Dressmaker			Atroph., l.	Infltr. both sup. lobes with cavities.
3	25	Dressmaker	Carles	Carles	Rhinitis sicca.	R. sup. lobe.
4	28	Housework			Rhinitis sicca.	Bleeding r. side; consol. entire r. lung.
5	18	Dressmaker	Carles	Carles		R. apex, dubia.
6	29	Dressmaker	Carles	Carles	Atrophy r.; left less marked.	R. apex.
7	22	None				Inf. r. sup. lobe.
8	14	School			Rhinitis atroph.; both sides.	Right epistaxis; infltr. entire l. lung, r. apex.
9	12	School				Infltr. entire l. lung.
10	14	School			Amygdalitis chronica sinistra.	L. epistaxis; l. apex.
11	15	School			Exostosis r.	Inf. l. sup. lobe.
12	16	Dressmaker			Rhinitis hypert. r.	Occasional epistaxis; inf. r. sup. and l. inf. lobes.
13	24	Dressmaker			Post. hypertr.; r. lower turbin.	L. apex.
14	26	Dressmaker	Pyorr. loca	Pyorrhoea	Rhin. hypertr.; ulcer septinas r.	Nightly epistaxis; r. apex.
15	25	Dressmaker	Carles	Carles	R. epistaxis.	Inf. r. sup. and l. inf. lobes.
16	25	Dressmaker	Carles	Carles	R. atroph. fact.; far advanced; much scab formation.	Dubia.
17	28	Dressmaker	Carles	Carles	R. atrophy.	Inf. r. and l. sup. lobe.
18	42	Dressmaker	Carles	Carles		Inf. r. lung and l. sup. lobe.
19	26	Dressmaker	Carles	Carles		Dubia.
20	14	School	Carles	Carles	Atroph. rhinitis.	Pott's disease.
21	27	Housework	Carles	Carles		Infltr. r. and l. sup. lobe.
22	52	Housework	All gone.	All gone.		Inf. l. lung, r. lower lobe.
23	30	Dressmaker	Carles	Carles	Rhinitis atroph.	R. sup. lobe?
24	20	Dressmaker	Carles	Carles	Hypert. r. lower turb.; exostosis l.	R. and l. lower lobe.
25	35	Dressmaker	Carles	Carles	Hypert. r. turb. post.	Inf. r. infer. lobe.
26	35	Housework	Carles	Carles	Hypert. rhinitis, middle turbin.; atrophy of other parts, deviation to left.	Inf. entire l. lung.
27	20	Servant	Carles	Carles	Deviation of septum to l.	R. sup. lobe.
28	18	Dressmaker	Carles	Carles		L. apex.
29	25	Dressmaker	Carles	Carles		L. apex.
30	19	Dressmaker	Carles	Carles	Deviation to l.	R. apex.
31	21	Neckwear	Carles	Carles	Hypertr. post. right turbin.	L. apex.
32	31	Dressmaker	Carles	Carles		Infltr. r. lower lobe.
33	46	Housework	Carles	Carles	Atroph. rhinitis.	R. and l. apex.
34	22	Dressmaker	Carles	Carles	Deviation of septum to l.	Infl. pulm. dextra, tot cum cavit; infltr. pulm. sinist.
35	18	Dressmaker			Advanced atroph. rhinitis.	Infltr. both sup. lobes.
36	35	Housework	Carles	Carles	Marked hypert. r. middle turb.; marked deviation to left, occluding nostril.	Diffuse infltr. l. sup. lobe.
37	29	Dressmaker			Deviation to l.	Left apex.
38	24	Dressmaker	Carles	Carles		L. apex?

This at least has been my experience for many years.

William Pierson Medical Association, of Essex County, N. J.—The following named physicians have been reelected officers for the ensuing year: President, Dr. Thomas W. Harvey, of Orange; first vice-president, Dr. Richard C. Newton, of Montclair; second vice-president, Dr. Joseph C. Young, of Newark; treasurer, Dr. J. Hammond Bradshaw, of Orange; secretary, Dr. Richard D. Freeman, of South Orange; librarian, Dr. Henry A. Pulsford, of South Orange; council—the foregoing and Dr. Theron Y. Sutphen, of Newark; Dr. Mifford Runyon, of South Orange; and Dr. William B. Graves, of East Orange.

The Heaton Hospital, of Montpelier, Vt., will receive, after the death of the widow of the late Wilbur F. Braman, a bequest of \$25,000.

to express opinions upon presentation of rather shallow testimony. We are, for similar psychic reasons, eager to follow the fashion, and pride ourselves on the swiftness of our apprehension derived from a rapid survey of observed phenomena and hearsay testimony. The public press stands close to every act and variation of our private and public life and promptly records our opinions, if they exhibit the least semblance of originality, or any quality which furnishes what is called "news." Thus, little can be thought or done in the closet or office or laboratory or hospital ward, which is not flashed in glowing words before the whole community inside of twenty-

* Read before the Section on Therapeutics at the meeting of the American Medical Association, at New Orleans, June 1, 1903.

four hours. For instance, if we express a doubt as to our old beliefs, they are forthwith heralded as dead. If we harbor the conception of a new idea, however immature or ill founded, before we are able to formulate deliberately our view, it stands out in print as a scientific conclusion. Our old time dignified medical or ethical conservatism is of relatively little use, as few properly appreciate it unless we ruffle before society in the forefront of assumption and Chauvinism. Our only reward for modesty is the approbation of our own consciences.

The chief purpose of medical science is to prevent disease, and great strides are being made in this direction. The next is to relieve or overcome the effects of disease, and the public are perpetually sneering at our limitations. A careful survey of what has been accomplished in the line of life preserving measures in the past half century alone, will reveal much that would prove commendable reading and of absorbing interest to all thoughtful persons. Unfortunately, the literature is so vast that even medical readers are compelled to be superficial, and they are liable to give their attention only to new, original, and conjectural observations. These following each other rapidly and dazzlingly, and in endless variety and modifications of view, which flow volubly from the mass of writers, they are encouraged to give expression prematurely in an over eager press. Thus, old facts suffer neglect, old principles of treatment are ignored or forgotten, old measures left to be employed by the less progressive or less "educated." And all this largely because the lay public has acquired the habit of applauding only that form of treatment which is distinctly novel and modern and called by them "scientific." Again, in the eager presentation of up to date scientific remedies the tendency is to use only those which are of easy adaptation, which consume little time in application. Cure-alls are demanded, which shall make one whole in the twinkling of an eye. Indeed, there are some which bear this similitude, notably the use of anti-toxic sera and hypodermoclysis.

One of the most ancient, reliable, practical, and readily demonstrable of all therapeutic measures is manual treatment—the laying on of hands. The primary instincts may be relied upon to point the way, but are only to be followed to a legitimate or final conclusion when verified. When a child receives a bruise the mother instinctively touches the part, holds it, presses, strokes, and it is relieved. We say the good effect is due to sympathy. To a certain extent this is true;

but if that were all, we should tend to make of the child a hypochondriac or hysteric, by continuance of sympathy carried on to petting and coddling. When a man mashes his finger he puts it instantly in his mouth, using warmth and pressure. If his head gets a blow he instantly seizes it in both hands and uses warmth and pressure—both fundamental restorative agencies. If the pain continues after an injury to the leg or arm or back, he beseeches some one to rub it for him. By this means he knows that pain grows less and function is more quickly restored. If the joint is damaged, not only is rubbing resorted to instinctively, but active and passive stretchings and twistings are employed. In violent neuralgias the instinct is to press on the course of the nerve, and much relief is experienced. If a finger is knocked out of joint, as often occurs in base ball, etc., the primary action is to pull it out straight, independent of any traditional or authoritative reason for doing so.

One might carry analogies steadily up to the more complex conditions which are recognized as relievable by scientific manipulations. From these principles defthanded, yet uneducated folk, with good mechanical abilities and shrewd observation, have often gained renown for their power to set bones, readjust structures, and restore elasticity to shrunken or stiffened tissues, thus relieving disabilities large or small, or pain, or both. For centuries the bone-setters of England have handed down their traditions carefully guarded, and have accomplished good work to the astonishment and annoyance of educated physicians. No one can read Dr. Wharton Hood's book on *Bone Setting* without gaining much valuable and practical information. In this he relates how he acquired by accident the tutelage of a renowned bone-setter which influenced him to study the subject of bone and joint injuries from a practical as well as scientific standpoint. Here and there in the literature of medicine are scattered observations and brochures and books pregnant with valuable information, many of which are neglected. Peter Henrik Ling, soldier, poet, philosopher of Sweden in the early part of the nineteenth century, presented a practical system of remedial movements which forms the basis of most of what is now accepted as authoritative. Travelers in far distant lands among savages and outlanders frequently testify to the restorative effects of empirical methods, the heritage of simple peoples, whereby limbs are repaired and sometimes life restored, by crude but effective agencies, chiefly mechanical, along with heat and cold.

A glance at the history of manual therapy would fill the average medical man with respect for its antiquity and reasonableness. A study of some of the older books would abundantly reward by revealing useful hints capable of intelligent amplification and adaptation. Contrasted with the history of medicine proper, especially the alchemical or mediæval development, it is refreshingly clean and reasonable and demonstrably efficacious. Toward the beginning of the nineteenth century order was evolving out of chaos. Let me quote from the history of massage by Emil Kleen, M. D., Ph. D.: "But it is to Teutonic peoples, especially the Germans, that we owe the greatest achievements in this, as in many other, fields. A strong impulse was first given by the famous Dr. Mezger, of Amsterdam, who was already an active masseur in the early sixties. He understood marvelously well how to win the confidence of the public, and through his German and Scandinavian pupils has exercised a powerful influence upon the standing of massage in the medical world. The hitherto so little heeded mode of treatment was now taken under the protection of certain of the foremost representatives of the great German and Austrian clinics, and was employed by practitioners whose names ennobled it. When Langenbeck and Billroth pointed out the importance of massage, and thereupon Heuter, Esmarch, Barbieri, Volkmann, Von Mosengeil, Gussenbauer, and others began to employ it, and its effects were scientifically set forth by these and others, the conviction gained ground, in Germany and Austria, that massage was as much entitled to a fair trial as the other branches of mechanotherapy, or as chemical, thermal, electrical, or any other form of treatment; and that the circumstance that massage had been much abused and over estimated by ignorant people, really had nothing to do with its actual significance. In the North, where Ling had prepared a good foundation, Helleday, and Berghman, in Sweden, Evald Johnsen in Denmark, and Wing, and Kiar in Norway, won extended recognition for massage. The result was that massage became irrevocably fixed as an integral part of the healing art in all Germanic lands, in the Scandinavian States, and in Holland, and that, whereas the practice of it had formerly been chiefly confined to mechanical quack-salvers, its practice is now, there at least, almost entirely in the hands of educated physicians, who often devote themselves to it as an exclusive specialty."

Recently all America has had a brilliant object lesson in the value of manual therapy by the visit of Dr. Lorenz.

The half forgotten, and often unrecorded, lore of many lands furnishes enough, and more than enough, to serve as a text to show that by skill in applying to even simple laws of anatomy and physiology, traditional measures of readjustments, of carefully regulated pressure, of strokings and passive movements, there can be accomplished great relief and often cures where medical skill has as yet signally failed. Why does medical skill thus fail? Why do not educated physicians more generally know and use these apparently simple means which, again and again, even today, in our boasted scientific training, they neglect, and yet the patient is often cured by some undeniably ignorant person? The answer is important, because the evolution of great principles depends on a correct reply being made by the physician himself. I do not feel that I can answer, for it will take much thought and time to show why handicraftsmen without a basal knowledge of the principles of medicine are known often to accomplish results in which the learned fail. It will need much type, however, for cavillers to set themselves right with intelligent and critical patients.

The public has begun to catch the spirit of the doubting Thomases of the profession and to exhibit a tendency toward drug nihilism out of all proportion to warrantable conclusions. Our medical practitioners are too prone to belittle the value of chemical remedies, because of bewilderment produced by an inexact knowledge of the physiological action of drugs, and chiefly because of a totally inadequate practical knowledge of the "Institutes of Medicine," by which alone these may be interpreted. Also, they are confused by the dazzling array of new remedies poured out in limitless variety from the ultrascientific research workers in medical laboratories, as well as by the tireless presentations of the great commercial houses. The public, then, observing this professional doubt, and perceiving only too readily our practical limitations, welcomes false gods who prate glibly of certain cures without drugs. Each to their taste. Little is said by these boasters of their abundant failures, nor will their victims tell. Those who are touched with mysticism, needing relief for diseased states, welcome Christian Science and plume themselves on their superior wisdom in leaning for support on something spiritual or transcendental, which appeals to the equally diseased consciences of the apostles of this false doctrine.

Supply is always adjusted to meet demand, and those who are more practical welcome osteopathy, which is closely analogous to Christian Science in

its non-science and its unblushing claims to do all things well. Both these cults, typifying as they do the two extremes of mental attitude, contain much that is wholesome and efficacious, but encumbered with endless falsities. Medical science has been long fully alive to all that is of value in each domain, as its literature abundantly evidences to any who will search it even superficially. Christian Science has been pretty well estimated and its follies vented by the lay and medical, and above all by the clerical, press. Osteopathy has so far come largely as a surprise and bewilderment to the medical mind and it is the purpose of this brief communication to say a few words on the subject. The writer has been especially interested in mechanical or manual therapeutics for a quarter of a century; he has taught the principles of remedial movements and massage in the first and most important school of the subject in Philadelphia for sixteen years, and has done his best to learn what there is to know of the subject. When the osteopathic "Doctors" appeared he was naturally eager to ascertain what mysteries, with what control over Nature's processes, they were especially endowed. Their literature was eagerly searched,¹ the professors were sought out and the subject approached with an open mind. The osteopathic doctor lays down, as a broad principle, that all, or practically all, bodily derangements are results of disturbances in the adjustments of the bones, whereby nerves and blood vessels are pressed upon or altered in their relationships, and that thereby innervation and circulation, and consequently sensory and nutritive conditions, are altered. He claims a thorough knowledge of anatomy and physiology and a sufficient familiarity with symptomatology and diagnosis. He avers that he can discover the cause of disease by locating the fault in disturbed bony relationships, and that upon correcting these the disorder will cease. His methods involve manipulations directed primarily to this end, and secondarily to the fountains of innervation, chiefly in the spinal areas and other centres, especially those of the sympathetic system. He is fully aware of, but not well instructed in, the significance of mechanical stimulation of the vasomotor centres and the consequent alteration in the vasotonus, not only in the larger circulation, but in the lymphatics. His instruction involves a knowledge, sometimes remarkably skilful, of massage and passive movements; hence the impression gains currency among physicians, that he is not only a masseur of exceptional skill and dexterity, but that he can

do no harm. The ignorance these men exhibit as to the natural history of disease, and the comprehensive science of pathology, as well as of other essential branches of medical science, must make it clear, however, that their confidence is that of inadequate knowledge of human ailments and lacks appreciation of the perils to be shunned and dangers to be feared; hence they gravely imperil human life by assuming control of any or all forms of acute or chronic disease. They may do irrevocable harm in aiming at one condition and overlooking other more serious states. For instance, a joint is found diseased and the cause may be simple trauma, or it may be latent tuberculosis. Over-energetic measures directed to the joint may readily assist in lighting up a general tuberculous infection.

The members of the medical profession should bear in mind that they are themselves exceedingly ignorant in what constitutes high-class massage and remedial movements, few of them having learned the simplest rudiments of mechanotherapy; and that consequently, they are rarely competent critics. In Europe this is not so. Again, in this country we have few of the thoroughly trained masseurs, such as are graduated at the Swedish, Danish, and German high-class institutions, where the course is two full years of nine or ten months each. Unfortunately, our local schools of massage turn out graduates after a three months' course, and even American aptitudes can become only superficial in the fundamental branches in so brief a training. Few are conscientious enough to carry their studies to an adequate thoroughness; yet a few do so and are then often better than the foreigners. The European masseur finds almost none of our physicians able to appreciate his skill, much less competent to direct him, hence the temptation is for him to practice on his own responsibility. Thereupon, in the minds of many, both of medical men and masseurs, there arises a bitter antagonism based on rivalry. This is not as it should be; they ought to work in harmony, each appreciating the special skill of the other. In Sweden an ordinance exists forbidding any but medical graduates to practise mechanotherapy unless they are also graduates of the Royal Institute, and then only under the direction of physicians. There are in this country a few, very few, schools of gymnastics where the pupils get a good education in anatomy, physiology, and applied hygiene, along with instruction in remedial exercises and free gymnastics. Their graduates are thus capable of exercising a large measure of responsibility in teaching physical culture, but some of these schools make no attempt

¹ There is quite a large array of text-books on osteopathy, some well written, some grievously silly.

at training in massage or bodily manipulations.²

The field of manual therapy is practically boundless, and is the prerogative and duty of the educated physician. Most certainly not in the restricted sense that medical men now understand this, but through a knowledge of the sympathetic nervous system and the possibilities of influencing this, especially the vasomotor mechanisms, as is done only in part and imperfectly by the osteopath. Effects, however, can be wrought by these means, and cures accomplished beyond the scope or comprehension of most men. Such large claims as these may sound fanciful, but it is only necessary to point to the array of literature already mentioned and to others growing daily. If the medical profession would take the trouble to read carefully half a score of small books (after revising their knowledge of the nervous mechanisms) and themselves make practical use of the light thus gained, they would feel little hesitation in going forward thoroughly to acquire skill in so practical and valuable a branch of therapeutics. They would find daily occasion to supplement their medicines by the use of one or more of the simple, yet useful and well established, devices or procedures, with which the fully educated masseur is familiar. It is not to be expected that the physician could devote the time required by some of the more laborious and continuous, or routine, procedures. He might not be endowed with the strength or dexterity for these, but for the more scientific part he should at least direct and super-

² In estimating the value of good teaching of massage it is necessary to learn how much care is exercised in enforcing the elemental principles, physiological and practical, which must govern the operation, and particularly in enforcing the limitations of permissible manipulations, even more than in outlining those recommended.

In America our courses are short and incomplete; we lack the thoroughness of long and exhaustive training, yet our graduates are often superior to those of foreign schools in judgment and resourcefulness. Many foreign-taught masseurs, found here, are not graduates of the first-class schools, and come from the uneducated classes; oftentimes they are servants, &c., who have picked up enough to pass an uncritical muster. Some are taught by their wives or husbands. Nevertheless, many of them assume arrogant airs of superiority over our people. If the physician himself is posted (and few are) he can readily detect the counterfeit. No one should be employed who cannot demonstrate his fitness, because much harm, both physical and moral—especially moral—can be done to the patient. I can safely assert that my classes at the Philadelphia Orthopaedic Hospital and the Infirmary for Nervous Diseases were carefully instructed what not to do as well as what should be done. We instructed ourselves as well as possible in the literature and in the methods of the best schools and individuals, modifying some and elaborating others, so that our graduates meet all reasonable requirements in skill, caution and tact. The conspicuous faults lie in the direction of undue force and rapidity. In some instances much force is needed, but only on large muscle masses and heavy dense tissues, never on the spinal areas. All masseurs should be warned to let the tissues along the spinal areas almost entirely alone, as great vasomotor changes can be wrought by stimulation of the distribution of the posterior primary divisions of the spinal nerves. In the *International Clinics* for July, 1903, I have discussed massage in an article on the Rest Treatment.

vise knowingly. He could and should make use of the more delicate manipulations, which are of far greater value. It is a most promising field for research for the experimental physiologist, and especially for the neurologist. The writer has been able, by these means, to accomplish cures of certain acute congestions of the spinal cord which, if he were to publish them in the present attitude of the medical profession, would probably cause him to be branded as a liar. He can afford to bide his time, however, and meanwhile the patients are well.

To give an illustration of the teachings of the osteopathic schools, and to set the minds of the medical public at rest as to the mysterious powers these gentlemen do or do not possess, let the following facts be considered:

Two men, in no way associated, applied for work in massage recently, one a graduate of Dr. Clodhausen's Institute, in Copenhagen, and one of the Royal Institute for Gymnastics, in Stockholm. The first, after completing his two years' course in Denmark, took a postgraduate course of a year in the Swedish School. On coming to America, each, hearing of the marvels of osteopathy, which pretends to proceed on similar lines but with a mystical quality of omniscience, determined to learn this "science." Each one took the full course at Kirksville, the school of Dr. Still and the fountain head of osteopathy, graduating in due course. They both assured me that they learned no facts of importance not already known to them. Such instances can be readily duplicated in the experience of others.

In so brief an article it is possible only to refer to certain generalizations, calling attention to the fact that the literature of mechanical therapeutics is of most respectable size, and by authors, in the main, of large scientific attainments and always of wide practical experience, and even if based on pure empiricism, is worthy of respectful attention; but there is a broad basis of physiological fact, of which only the most elementary parts are now formulated. So soon as the attention of medical practitioners and of qualified teachers in medical colleges (as assuredly will occur soon), is directed to this subject, the profession will gain a wide realm of added usefulness to the means of controlling disease. Again, it must not be assumed that mechanical or manual therapy is merely massage and exercises as conceived by the average physician; the scope is by no means confined to passive movements and muscle kneadings, and substitute exercises for invalided folk who cannot move about and require an hour's rubbing to get the equivalent of a five

mile walk, or loosening of the joints contracted by disuse, etc.

The sphere of manual therapy lies in the ability of medical practitioners to influence centres of organic activity by mechanical stimulation through the vasomotor nerves, whereby less or more blood can be sent to parts, according to their need. Not only can this be accomplished, varying in utility with the physiological and other knowledge of the practitioner, but sensory, as well as nutritive effects, are thus wrought, and in so much more accurate, safe, and thorough a fashion, that no one who has once had his attention thus aroused can remain content to omit using these excellent procedures. To be sure, it need not be that well tried and proved remedies and measures shall be abandoned, but in manual therapy, when applied by the physician himself, there is a nice, exact, and prompt agency, far in advance of all other measures for the relief and cure of a wide variety of derangements, not only of the coarser mechanisms, but of the vital organs.

It remains, then, for medical men to investigate these statements, not to deny them. Drugs are admitted to fail frequently; the recognized forms of balneotherapy and climatotherapy fail; hygiene in its broadest sense, on which so many rely, can often accomplish little; of special rays, etc., much is hoped; but the reasonableness of manual therapy must commend itself increasingly to those physicians who will look carefully into the matter for themselves.

ON THE NATURAL HABITAT OF THE TUBERCLE BACILLUS.

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Koch's statement, that tubercle bacilli derived from cattle when injected into cattle produce at first a local tuberculous infection, followed almost always by a general tuberculosis of miliary character, and that bacilli of human origin thus injected produce a local inflammation of tuberculous type, but without fever and general infection, has been confirmed by so many careful investigators that it must be accepted as correct, and this distinguished authority be conceded to have established the first proposition which he advanced at the Tuberculosis Congress, in London. That the converse is true, that bovine tuberculosis may not be communicated to man, remains to be proved. Indeed, certain notable exceptions have been found to the universal application of his first as-

sertion, and while, in the main, human tuberculosis has been shown to be nonpathogenic for cattle, many examples of its pathogenicity have been found. Kossel (*Berliner klinische Wochenschrift*, July 20, 1903) used bacilli of human origin from the mesenteric glands in one case, and from the peritonæum in another, for the injection of calves, both of which showed generalized tuberculosis at death. Many others have confirmed the findings of Kossel.

It has been suggested that the bacilli in these latter instances were recently from a bovine source, and that, in reality, the children from which the bacilli were taken were suffering from bovine tuberculosis. Koch found that the bovine bacillus was pathogenic for all experimental animals while the human bacillus had a much more restricted range in pathogenesis. It has likewise been shown that animals inoculated with bovine bacilli suffer from a much more virulent form of infection than do those in which bacilli of human origin are used.

These facts lead to the belief that all tubercloses, whether of man or beast, were originally of bovine origin, and that in the cow is found the natural habitat of the disease. There is much reason for this belief. The tubercle bacillus, like all parasitic plants, has its own natural habitat, and whenever elsewhere found is a foreigner, a stranger in a strange land, and shorn of much of its virile powers. Nor is this characteristic of parasitic plants only; all plants, as well as animals, find in selected regions of the earth alone those conditions best suited to their individual existences. From this universal law of Nature man himself is no exception; productive man has but slight existence outside the temperate zones.

In certain soils and under certain skies only are found the peculiar conditions required for each plant and animal, and in all others it is more or less exotic—in a measure artificial, lacking something of the strength and vigor of its natural environments.

Among pathogenic parasites the fungus of actinomycosis has its natural habitat in the tissues of the cow, yet it is frequently communicated to other animals and to man; still, in practically all cases the disease is contracted immediately from the cow and seldom from man or other animals, the legitimate inference being that this parasite is very much more virile when taken from the field in which it flourishes most luxuriantly. Actinomycosis is a rare disease in man, but is a very common one in cattle. This germ is at home in the cow alone, and when found in man has but made a short excursion from its home and there exists only in a weakened and sterile state.

Rabies has its nativity in the dog, and though communicable to other animals and to man, it may in each case usually be traced directly to the dog. It may safely be concluded that the rabic virus is much more potent in the dog than in other animals where the disease is but an accidental one, and that while the bite of the mad dog is fraught with great danger to the man, the bite of the rabid man would be of little consequence to the dog.

The bacillus of glanders is at home in the horse, while in man it is exotic. It can scarce be doubted that if it is kept in this artificial soil for a few generations it could only with difficulty be transferred back to the horse again.

Bubonic plague has its native domicile in the body of the rat, and with the destruction of these rodents this disease is shorn of most of its terrors.

Anthrax is a most destructive disease among cattle, and to a less extent, among sheep, and the bacillus anthracis in man is always from this restricted origin. It is not likely to spread from man to man, but comes in each instance from its native haunts.

On the other hand might be enumerated those pathogenic bacteria which have their natural habitat in man—typhoid, cholera, syphilis, smallpox, diphtheria, etc. Many of these affections may be communicated to animals, but their nativity is of human origin. To this class of parasitic vegetable organisms, belongs the tubercle bacillus. It, too, must have a source of origin peculiarly its own, where character of soil, degree of heat, and habits of its host are best adapted to its needs. - It is here that it grows in greatest luxury, and here it breeds that virile power so deadly to all animals into which it finds accidental access.

It is true that tuberculosis is now present in many animals besides the cow, but it is likewise true that when the germs are drawn directly from the cow to any of these animals they sicken and die with much greater certainty and celerity than when drawn from any other source. Hence the conclusion forces itself upon us, even from Koch's own experiments, that the cow furnishes the type of soil and tissue best adapted to the production of virile tubercle bacilli; also that the more immediate the transference of tuberculosis from the cow to man, the more deadly it becomes and the more readily it may be transferred back to the cow again; while cultures many generations removed from the cow lose much in virulency, are comparatively innocent in their effects, and are with great difficulty carried back to the source from which they took their origin. Hence, it is highly improbable that the rule is reciprocal in its action, and that if not transferable to the cow from man it may not be transmitted from cow to man.

There is every reason to believe, from analogy and from natural history, that the tubercle bacillus outside the cow is a dwarfed and feeble plant, and though in many respects resembling the parent stock, lacks much of that virulency which rapidly destroys the lives of those unwary creatures which draw their sustenance in part at least from the infected cow. This belief is further strengthened by the fact that tuberculosis has but slight existence in those regions where the cow is not used for dairy purposes.

Further investigations are necessary, but in the end it seems more than probable that the original and most dangerous source of infection in tuberculosis will be found to rest in the bovine species.

A METHOD OF RAPID EXTIRPATION OF NASOPHARYNGEAL FIBROMATA, WITH REPORT OF CASES.*

By GORDON KING, M. D.,

NEW ORLEANS, LA.

In the improvement and perfection of surgical procedures, I consider that simplicity, both in technique and in instrumentation, to be always an important desideratum.

In this age of active progression, many older methods of practice are becoming obsolete, and there is a feverish strife constantly going on among surgeons for the introduction of novel methods and appliances, the practical applicability of which is often seriously compromised by their complexity. It is painfully apparent at times that the author of a new method or device is impelled more by selfish craving for notoriety and gain than by the worthy desire to benefit humanity and elevate the standard of his profession.

This brief preface is to inform you that the operative procedure I desire to bring to your notice on this occasion bears no great claim of originality for the author of this paper and requires no studious attention to details or special instruments for its application. It is simply a plan of operating in postnasal fibromata which has afforded me encouraging success when other means have failed of their purpose in my own hands.

To the subject of postnasal fibromata and their successful treatment, every rhinologist must at some time give his most serious attention if he desires entirely to fulfil the exactions of his rôle and be prepared to do valiant battle with any nature of disease that comes within the scope of this work; for we must all confess that the management of these formidable tumors presents one

* Read before meeting American Laryngological Association, Washington, D. C., May, 1903.

of the most trying situations we are called upon to face, and our utmost resources may be brought to bear to avoid a fatal issue.

To be as brief as possible in the presentation of a very broad subject, I shall begin by excluding those forms of growths rather vaguely referred to as pseudopolypi of the nasopharynx, which have their point of attachment usually by a small pedicle in the posterior part of the nasal cavity and become pendulous in the pharynx. Such growths generally offer but little danger or difficulty in their removal, as they seldom give rise to serious hæmorrhage and can be extirpated by the ordinary well-known method of snaring. What we shall consider in particular is the true fibroma of this region, becoming evident usually during the period of adolescence, springing from the margin of the posterior choanæ or the pharyngeal vault, highly vascular in structure, though tough and fibrous, and with an almost malignant tendency to rapid development and invasion of contiguous parts.

Their clinical appearance and pathological features are too well-known to warrant further description than will be brought out in the histories of the three typical cases I shall cite; therefore, I shall devote no time to details of examination and diagnosis.

When a case of this kind comes under our care, the only serious question involved is, "How can we best accomplish its complete removal and incur the least risk to the patient?"

Shall we be conservative and resort to such plans of treatment by which we may hope to bring about its slow destruction or retard its growth until the active stage of its development is past, or shall we face the situation boldly and attempt a radical extirpation?

Before deciding this momentous question, let us consider briefly what these different plans of treatment offer in the way of advantages and disadvantages.

The wisdom in conservatism here must hinge upon two questions: Does the condition of the patient permit of any temporizing method? Do any of the conservative measures offer reasonable hope of destroying the growth or preventing its development?

Unfortunately, these cases are often brought to us only when the tumor has already attained considerable dimensions and a state of cachexia similar to that accompanying cancer has become apparent. We know that at a certain stage these growths may seriously interfere with rest by causing pain from pressure and obstructing the nasal respiration, and that they may affect the

general nutrition by their tendency to slough and bleed.

In such conditions, delay is more dangerous than an attempt at immediate removal of the growth and we should so advise our patient, and only upon the refusal of radical operation are we justified in attempting a conservative course of treatment.

If this is the case, or if the general condition of the patient is satisfactory enough to permit of a slow treatment, let us consider what means we have at our disposal whereby we can gradually destroy the tumor, cause its absorption, or prevent its development until the patient arrives at the age of twenty-five years, when the growth may reach its maturity and remain *in statu quo*, or undergo a process of atrophy.

Records of cases successfully managed on this plan are exceedingly rare, and on the other hand we have but to consult our own experience and that of others to realize how ineffectual, as a rule, are all the methods that have been applied to accomplish such results. Ignipuncture, while it may cause some destruction of the mass by producing a slough, seems to excite too much inflammatory reaction, which tends to increase the rapidity of growth rather than to retard it.

Electrolysis causes sloughing which may lead to serious hæmorrhage or bring about a state of cachexia.

The situation of the growth renders its proper application also very difficult at times. The same may be said of application or injection of acids and escharotic agents. It may be said, in general, that all methods, the purpose of which is to produce sloughing of the tumor, are unreliable and unsatisfactory in their results.

Restriction of the blood supply by ligation or compression of the arterial trunks might in other situations afford a favorable means of arresting the progress and perhaps of causing ultimate atrophy of the tumor; but these tumors are so situated as to receive their blood supply from the carotids of both sides, and hence it is extremely difficult to obtain sufficient diminution in the supply by compression or ligation to have great influence on the growth.

This plan of treatment, however, offers a fruitful field for experiment and I believe may lead to interesting results. Some facts noted in the history of my third case are of interest in this connection.

We may mention still another conservative method of treatment which has been tried for the cure of neoplasms of this nature, and that is the Röntgen ray.

Since its advent into the field of therapeutics, volumes have been already learned of its inefficiency in curing tumors other than epithelioma of the skin and, so far as I can ascertain, no case of this kind has ever been cured or even markedly influenced by it.

If we reject as hopeless or uncertain these various conservative methods, and the decision as to radical operation is left to our judgment, why hesitate to attempt extirpation of the growth? In my opinion hesitation should be based alone on choice of operation, for, knowing the malignant tendency of the growth, it is only by operation that we can conscientiously assure our patient of a chance for his life. While we are to be influenced in great measure by the special features of the individual case, there are three obstacles that beset the path of the operator, whatever plan he may decide upon. They are (1) difficulty of access to the growth for its complete removal; (2) danger of excessive hæmorrhage; (3) danger of suffocation and pneumonia from aspiration of blood into the lower air passages.

Recurrence of the growth is the rule, unless the extirpation is complete and includes the base of attachment. It is highly important, therefore, to ascertain, if possible, before operation, the situation and extent of its attachment. This may offer serious difficulty on account of the volume of tumor mass, which, in its rapid development, may entirely occupy the postnasal space and send prolongations into the nasal cavity, so that no definite idea can be formed of its base by visual examination alone. Digital examination is then necessary, but should be made with gentleness and caution for fear of hæmorrhage being provoked by the manipulation.

If the tumor is freely movable and attached by a pedicle much smaller than its body, its removal may be effected more easily and with less hæmorrhage than when the growth is sessile and invading the surrounding regions.

The excessive volume of the growth may also greatly hamper the manipulation of instruments through the nose or mouth, and this fact has led to the performance of preliminary external operations, such as temporary resection of the maxilla, division of the palate, etc., to allow freer access to the region. Such operations, I believe, are seldom justifiable, except where extensive invasion into the sphenomaxillary fossa or antrum has occurred, for the patient is thereby subjected to unnecessary disfiguration, shock, and hæmorrhage. The technical skill of the trained specialist should enable him to overcome the obstacle presented by the apparent inaccessibility of the growth and effect its removal by the mouth or

nose. How that may be accomplished we shall presently see.

Excessive hæmorrhage is always the greatest source of danger, howsoever we may attempt the removal of these tumors. Even careful manipulation sometimes leads to sudden and violent hæmorrhage from the substance of the growth, and this fact renders the piecemeal method of removal extremely dangerous and tedious. To cut into the body of the tumor or to remove a piece, leads to such a gush of blood that we are compelled to give our entire attention to checking it and hence can proceed but slowly. It is a known fact, however, that once the pedicle is cut through or the body of the mass removed, the hæmorrhage tends to subside spontaneously or can be quickly controlled by packing.

This shows the necessity of operating quickly, of attacking the pedicle at once and extirpating the body of the growth. When this can be accomplished there is little need for temporary or permanent ligation of the carotids in the neck as a preliminary measure, unless the patient is in an extremely weak condition, or anæmic from former hæmorrhages.

The third danger to be encountered is the embarrassment of the respiration caused by the manipulation through the mouth or by the flow of blood into the larynx. This latter accident may produce immediate suffocative symptoms or later lead to pneumonia. The Rose position is not always sufficient to prevent this and the hæmorrhage is undoubtedly increased by the pendent position of the head. To avoid any trouble from this source and to allow of free manipulation through the mouth, I think it usually advisable to perform a preliminary tracheotomy, the tracheal wound to be closed when the tumor is out and all bleeding checked. A Trendelenberg cannula is not required if the Rose position is maintained during the period of active hæmorrhage while the pedicle is being cut through.

If we accept the correctness of these observations concerning the necessity for rapid excision of the growth without preliminary external operation other than tracheotomy, how then shall we proceed to accomplish this trying task? It is needless to say, we should have at hand everything needed to arrest bleeding by packing the nasal cavities and nasopharynx and for ligating the carotids as a last resort, if necessary, and for saline infusion.

For most pedunculated growths of the nasal or postnasal cavities the cold wire snare or the galvanic loop can be used to great advantage, but for these fibrous tumors they often fail of their purpose.

The structure of the pedicle is so dense and tough that a cold wire will almost invariably give way when tightly drawn, and break without cutting through. Theoretically, the galvanic loop offers the best chance of extirpation with little loss of blood, but its practical application is generally disappointing, as the heating of the loop is difficult to regulate and it stands little strain when tightened around the pedicle.

Doyen, of Paris, and Escat, of Toulouse, have had excellent success with special instruments they have devised for rapid removal of such tumors through the mouth. I tried them on one of my cases with most unsatisfactory result and am of the opinion that they are only applicable in a certain number of cases where the volume of the mass is yet small. My failure, however, I confess, may have been due to lack of that skill in the use of them which these operators exhibit to a remarkable degree.

My own plan of action is simple in detail, inflicts less traumatism, and has enabled me to excise the bulk of the growth more quickly and effectively than other means I have essayed. It is as follows:

Under chloroform anæsthesia a high tracheotomy is performed and a tube inserted. With the patient in the Rose position, the head supported by an assistant, and a mouth gag in place, the index and little finger of the left hand are introduced in the nasopharynx to ascertain carefully the outlines of the tumor and the position and extent of its base of implantation. This step in the operation is of great importance, for as soon as the size and point of origin of the pedicle are made out, the fingers are to serve as a guide for the operation of a pair of scissors introduced through the nose on the side where the pedicle is more accessible. The scissors to be used for this purpose are a strong pair with long handles and short blunt blades, slightly curved on the flat. The long handles offer a strong leverage, so that the toughest tissue can be cut through with them. The closed blades are introduced carefully along the septum until the point can be felt in the nasopharynx. The instrument is then guided by the fingers to the pedicle and with the convexity of the blade uppermost the pedicle is vigorously attacked and divided. As soon as the tumor is felt to be detached in the pharynx, it can be drawn out by the fingers through the mouth, and immediate attention be given to checking the flow of blood which gushes copiously from the moment the first cut is made.

The introduction of a gauze pack aided by the natural tendency to spontaneous arrest when the tumor is removed will check the bleeding in a very short time.

The head can then be brought to a level with the table and if we are satisfied that none of the body of the growth remains behind, we can proceed to remove the tracheal tube and close the wound. In this manner the bulk of the growth, at least, can be removed and if the hæmorrhage has been copious, the patient should be allowed a few days to recuperate before being subjected to further operation for the complete removal of what may remain behind.

Too much time should not be lost, however, in attacking the root of the tumor, which, as early as possible, should be examined closely by anterior and posterior rhinoscopy. Remaining fragments can be removed under light with snare, cutting forceps, or scissors, or destroyed by the use of cautery, without further danger of serious hæmorrhage. Knowing the tendency such tumors sometimes exhibit to recur rapidly after removal, great care should be taken to make the extirpation as complete as possible and the patient should be kept under observation for several weeks to suppress any new development.

The following cases demonstrate the practicability of the method of extirpation by the bucconasal route alone, whether aided or not by the precautionary measures of tracheotomy and carotid ligation:

CASE I.—H. L., a mulatto, farm laborer, twenty years of age, native of Louisiana. Mother has tuberculosis and father has large tumor of chest wall, which from patient's description seems to be a lipoma. Patient has been subject to frequent colds and had pneumonia and measles in his earlier youth.

Six months before coming under my care he had a polypoid growth removed from nose, the recurrent symptoms of which, associated with epistaxis and headache, brought him to consult at the clinic of the Eye, Ear, Nose, and Throat Hospital, of New Orleans, in the month of November, 1899.

Examination at that time revealed a fibrous growth filling right nasal fossa, with a similar mass hanging in postnasal space. Two attempts were made to remove it with a strong piano wire and a Bosworth snare, and each time the wire broke, under great strain, without cutting into the tissue. A third loop was thrown over it and the slow method tried, the snare being kept on for twenty-four hours and gradually tightened. It broke, as did the others, and considerable loss of blood resulted. I then attacked it with long scissors, introduced through the nose under partial cocaine anæsthesia, and succeeded in removing the growth *en masse*. Hæmorrhage rather violent, but quickly controlled by pressure with tampons. Point of origin of tumor found to be vault of pharynx and upper margin of right posterior choana, which was afterwards subjected to galvanocauterization. Three months later no evidence of recurrence could be observed.

CASE II.—J. U. B., white boy, fourteen years of age, from Northern Louisiana, with fibrous growth about size of a small hen's egg in the nasopharynx, with small prolongation in the right nasal fossa. History of nasal obstruction beginning about two years previously and lately associated with occasional hæmorrhages, one attack of which had been very alarming. General condition fairly good. Digital examination, cautiously made to avoid bleeding, showed growth to be only slightly movable and attached by rather broad base to vault of pharynx and margin of right choana. No adhesions to palate or pharyngeal walls.

The little patient was kept in bed for six days before operation, given strychnine as a tonic, and allowed full nourishing diet. A cleansing alkaline spray was ordered for the nose on account of free mucopurulent discharge from the right nostril.

Preliminary to attacking the growth, preparation was made for saline infusion and for post-nasal plugging. Tracheotomy was then performed, a mouth gag inserted, a piece of heavy ligature silk passed through the tongue to make traction, and a small rubber catheter passed through the left nostril and the ends tied over the lip to retract the palate. When this was done, the tumor could be plainly seen hanging below the palatal border. With the patient in the Rose position, the index and middle finger of the left hand were introduced behind it and with the scissors plied through the right nostril the pedicle was vigorously attacked and cut through. Blood flowed freely for a moment, but as soon as the mass was removed from the mouth, a gauze pack quickly inserted, and the head raised to a level, the hæmorrhage was controlled.

The tracheal tube was removed and the wound closed with sutures.

On the third day the temperature began to rise and a bad odor emanated from the gauze packs, so they were removed. No bleeding of consequence occurred. Inspection of the nasopharynx revealed some slough fragments and a small part of the tumor left behind. These were removed under cocaine anæsthesia by means of a forceps applied through the nose. Ten days later he was allowed to return home, instruction being given to the parents to have the boy kept under close observation and to bring him back at once when any tendency to a recurrence manifested itself. Six months passed and no return of the growth was reported. It is now almost a year since its removal and the boy is still well.¹

Microscopical examination was made of the growth at the New Orleans Clinical Laboratory, and it was reported as a fibrosarcoma, but the clinical history of the tumor was sufficient, I think, to confirm the diagnosis of pure fibroma.

CASE III.—H. B., a youth fifteen years of age from Connecticut, came under the care of Dr. de Roaldes and myself in the month of December,

¹ Since reporting this observation the patient in Case II has returned with a recurrence of the tumor slightly smaller in size than the original mass. Its removal was effected by the same method, without tracheotomy, and special precautions were taken to make the extirpation complete and prevent its return.

1901, through the courtesy of our esteemed friend and fellow member, Dr. H. L. Swain, of New Haven, who had directed him to be brought to our genial clime to avoid the severity of the New England winter. The case had been under his observation for about three years, and on account of the parents' refusal to consent to a radical operation, Dr. Swain had been forced to resort to conservative treatment. At that time the tumor, which was an exceedingly vascular fibroma attached in the pharyngeal vault and with a nasal prolongation occupying and dilating the right fossa, had already reached the sloughing stage, and several abundant hæmorrhages had weakened and exsanguinated the patient very much. When he first came under our observation surgical interference was not considered advisable on this account, but under the influence of our mild climate, a nourishing diet, and tonic medication his state of health improved so much in two months that we felt justified in attempting radical removal of the growth, and so advised the parents. The tumor had been gradually increasing in size until the nasal portion reached anteriorly to within half an inch of the vestibule of the nose. In the right cheek could be seen and felt a rounded movable fibrous tumor about the size of a walnut, apparently independent in its development of the postnasal growth. Parental consent being finally obtained for operation, we decided to attempt its removal with the Doyen instruments under cocaine anæsthesia. Accordingly, on February 25th, cocaine and adrenalin were freely applied and with the brave little patient in the sitting posture I endeavored forcibly to detach the pharyngeal portion by the Doyen method and remove the nasal prolongation with cutting forceps. The pain inflicted by the effort and the great loss of blood forced me to desist before I had succeeded in removing more than a third of the tough resistant mass. Microscopical examination of the part removed gave report of a telangiectasic fibroma, which corresponded with the diagnosis made by Dr. Swain. The shock and loss of blood so debilitated the boy that we had to give attention to building him up before any further intervention could be practised.

A seven weeks' sojourn in the country did much toward restoring his former strength and vigor, so that upon his return preparation was again made for operation. After consultation with Dr. F. W. Parham, of New Orleans, we decided to operate under chloroform anæsthesia and to adopt the precautionary measures of preliminary tracheotomy and carotid ligation. Twelve days previous to operation he was kept in bed, given stimulants, tonics, strengthening diet, and daily inhalations of oxygen. Operation on May 6th. The carotids were exposed by Dr. Parham. The right external was tied, and ligatures were passed under the common carotids of both sides, to make compression if necessary when the tumor was being cut through. I then performed tracheotomy, transfixed the tongue with a strong silk ligature, tied the palate forward with a rubber catheter passed through the left nasal cavity, inserted a mouth gag, and placed the patient in the Rose position. While compression was being

made on the free arterial trunks I attacked the growth with the scissors, as in the preceding cases, and by vigorous efforts cut through the thick fibrous mass close to its attachment and brought it out through the mouth. In spite of our control of the arteries the hæmorrhage was almost overwhelming for the patient, and when controlled by gauze packs saline infusion had to be practised immediately. This was skilfully done by Dr. E. D. Martin, whose valuable assistance we had obtained also. The patient responded well to the infusion, and as bleeding into the pharynx had ceased, the tracheal tube was removed and the wound closed. The carotid compression was removed, except for the right external, which was left ligatured with a view toward prohibiting the tendency to recurrence. Again the boy showed remarkable recuperative powers and on the fourth day allowed me to remove the gauze packs and inspect the nasal and postnasal cavities. The vomer was found to be displaced completely over to the left side, and the right nasal cavity enormously dilated. A small part of the base remained attached to the body of the sphenoid in the posterior part of the nasal fossa. In addition to this the tumor had sprung from a broad base including nearly the half of the pharyngeal vault. Rapid convalescence took place, and in ten days after operation the patient was taken to his home in New Haven, with instructions to put himself under the care of Dr. Swain immediately on his arrival. No attempt had been made to remove the tumor in the cheek, but at the time of his departure there had been a considerable diminution in its size, which we attributed to the effect of the carotid ligation.

I am much indebted to Dr. Swain for the previous history of the case and for the information as to the subsequent course of it, which has been a very unfavorable one. A recurrence had taken place involving the antrum and perhaps invading the pterygomaxillary region, and as the parents radically objected to another surgical intervention, the x ray was being used with the hope of staying its progress or causing its absorption.

I regret exceedingly that the time limit does not permit me to record in full the details of this case, as it presents a fund of interesting facts I am forced to omit.

The Northern Tri-State Medical Association, of Indiana, Michigan, and Ohio, held its thirtieth annual meeting at Elkhart, Ind., on December 1st. The officers, who hold over till July, 1904, are: President, Dr. George W. Spohn, of Elkhart; vice-president, Dr. W. H. Baldwin, of Quincy, Mich.; treasurer, Dr. A. G. Holbrook, of Coldwater, Mich.; secretary, Dr. J. R. Williams, of White Pigeon, Mich.

Large Purchase of Artificial Limbs.—The army will purchase during the coming year \$150,000 worth of artificial limbs which are supplied every five years to such veterans of our various wars as may require them. Commutation may be accepted instead of a limb.

THINGS EVERY TUBERCULOUS PATIENT SHOULD KNOW.

By MARTIN L. STEVENS, M. D.,

ASHEVILLE, N. C.

General detailed directions cannot be laid down that will be applicable in all cases of tuberculosis, or that will enable any patient by the observance of them successfully to treat his own case. Yet there are some things which every tuberculous patient should know—principles that should be repeated until they are so fixed in his mind that he cannot forget them. Some of these follow:

COUGH AND EXPECTORATION.

Cough is for a beneficent purpose. Cough medicines are seldom needed. Paroxysms of coughing can be partly controlled by exercise of will.

Never cough, however slightly, without a handkerchief before your mouth, as it endangers others and yourself.

In the dining room do not cough at all. An impulse to cough can be resisted sufficiently long for you to leave the room quietly and reach a cuspidor.

Never swallow your expectoration. Never cough while lying on your back.

Before each meal use an antiseptic mouth wash and carefully cleanse the hands, which easily become contaminated from the lips.

If talking increases your cough do not talk much.

The average consumptive coughs up each day millions of tubercle bacilli, which, if permitted to dry, are wafted about by every breath of air, and rebreathed by himself and those about him, extending and reproducing the disease. To guard yourself and others against this danger every particle of sputum must be destroyed. The belief that sputum expectorated on to the ground in sunny places is harmless because of the disinfecting power of the sun's rays is both erroneous and pernicious. You have no assurance that infective material from it may not be carried away almost immediately by flies, or by the shoes and skirts of unwitting persons.

It need hardly be added that expectorating into fireplaces, on to the ground, or anywhere except into cuspidors or other sputum receptacles, should not be tolerated.

Handkerchiefs as receptacles for sputum are sanitary abominations.

If by accident the floor or bedding becomes soiled with sputum, proper measures must be immediately taken to disinfect the spots.

All persons who cough should refrain from kissing.

The consumptive who conscientiously carries out

these simple precautions as to his sputum is in no wise a menace to those about him. Those careless in regard to a matter of such vital importance should be required to sound the warning cry, "Unclean!" to all who would come near.

In this connection I desire to impress upon you the fact that you are responsible, not only for carelessness on your own part, but on the part of your companions. You can make it so unpopular to be "unclean" that the individual who is so will feel that he is a veritable outcast.

EXERCISE AND REST.

Take no exercise unless especially directed to do so, and then only such as is directed.

Take none that is of a sporting character.

Take none if your temperature is more than a degree above or below normal.

Take none if there is blood in your sputum.

Take none if it makes you short of breath.

Take none if you are losing in weight.

Always stop before you are tired.

Never run or get out of breath.

Never lift or strain at anything. Over exertion spoils many cures.

Take no breathing exercise or other gymnastics except such as have been specifically directed.

If your temperature reaches 100° F. (38° C.) lie down. If it reaches 101° F. (38.4° C.) undress and go to bed in earnest.

Spend ten hours in bed each night.

Retire early enough to finish your sleep before sunrise.

An hour in bed after sunrise will not compensate for an hour lost through late retiring.

OPEN AIR.

Spend every minute possible in the open air. At least eight hours of each day should be spent out of doors.

The windows of your sleeping room should be kept open.

Night air is not harmful, but is less beneficial than day air because lacking sunlight.

When taking the outdoor rest cure protect the head from the direct rays of the sun.

Avoid dust. Avoid draughts. Avoid crowded and poorly ventilated rooms.

If you catch cold, report at once to your physician.

DIET.

If your digestion is good, use a generous mixed diet, including meat, milk, eggs, and cereals.

If on full diet no food should be taken between meals.

If forced feeding is necessary it must be carried

out under the direct supervision of your attending physician.

Many good stomachs are ruined by *stuffing*. It is not the quantity *eaten*, but the quantity *digested* and *assimilated*, that benefits.

If not on full diet, a small luncheon of milk and crackers, malted milk, or a raw egg should be taken *regularly* two or three hours after each meal (10 a. m., 3 p. m., and 9 p. m.).

Take no food within less than two hours of a regular meal.

Do not drink milk hastily. Sip it, eating something at the same time.

Regularity of meals is essential. Do not eat at unsuitable times.

Avoid food of unsuitable kinds—especially sweetmeats.

MEDICINES.

Most patients want to take too much medicine. There is as yet no specific for this disease.

Take only such medicines as are prescribed, following directions to the letter.

Stop any medicine that disturbs the stomach.

Beware of sleep producers.

As soon as a medicine is discontinued throw away any unused portion of it. You will thereby avoid the temptation of prescribing it at a later time for yourself or for some other person who may be foolish enough to permit you to prescribe for him.

CLOTHING.

The clothing should at all times be such as will keep you comfortable.

Underclothing, especially, must be adapted to the individual. No fixed rule can be laid down for all classes. In winter wool, silk, or linen; in summer silk, linen, or cotton.

Avoid chilling. Use wraps.

Avoid overheating. Never wear enough clothing to keep the skin moist.

Corsets and waist bands should not be tight enough to interfere with perfect freedom of respiration.

Use sensible foot wear. Use no chest protectors.

For carrying out the outdoor treatment in winter one or more steamer rugs are indispensable.

BATHING.

Unless there is special reason for not doing it, a cold sponge or shower bath should be taken each morning, and a full warm bath only once a week.

After the sponge or shower bath the skin should be well rubbed with a coarse towel. If you are not strong, this rubbing should be done by an attendant.

Omit the cold baths during a pleurisy. Omit them after a night sweat. Omit them if the morn-

ing temperature is below 97° F. (36° C.), using a dry rub instead.

ALCOHOL AND TOBACCO.

Alcohol is not a specific in this disease. On the contrary, tuberculosis is more common among those who have been intemperate in its use.

The best specialists have long since discontinued the universal prescribing of it.

Such popularity as it still has it owes largely to the fact that people like to take it.

In the exceptional cases in which it may be necessary to prescribe it, it should be used with the same care as to dose and time for taking as would be observed with other medicines.

Smoking irritates the upper air passages sufficiently to set up a mild form of chronic inflammation in the throats of those (especially cigarette smokers) who indulge the habit to excess. Theoretically, at least, it lessens the resisting power of these parts, and should not be indulged in.

The habit of chewing, while less injurious to the patient, must be condemned for sanitary reasons, as must everything else that increases the tendency to carelessness in expectorating.

COOPERATION.

Patient and doctors must work together if good results are to be obtained.

Your medical adviser does not of himself expect to cure you. He can only do his part, and advise you as to yours. The responsibility then rests with yourself.

Make a business of getting well. No one with tuberculosis, however slight, has any foundation for the hope of recovery, unless he is willing to devote his whole energy and determination to that end. His every act should be guided by the one purpose. Cooperation with his physicians must be full, honest, and complete.

One of the greatest obstacles to this end is the well meaning advice of friends with numberless suggestions.

In general, the less one knows of a subject the more ready he is to give advice on it. In the advising of tuberculous patients it is especially true that "A little knowledge is a dangerous thing."

Avoid the danger of self-experimentation as well as that of experimenting with the prescriptions of others.

Do not discuss your symptoms with other patients.

Many patients expect their doctor to prescribe the medicine they wish to take, and indorse the things they wish to do, instead of what they ought to take and do.

If you cannot implicitly trust the management of your case with your physician, change physicians.

THE GENESIS AND NATURE OF MEDICINAL DIOXIDES.

By FRIEDERICH ELIAS, PH. D.,

BERLIN.

The principle enunciated by Pasteur in all probability first led to the conception of magnesium dioxide as an agent suitable for therapeutic application. This eminent investigator directed attention to the multiplication of evils arising from the accumulation of waste products as a result of deficient oxidation in the human economy. As the true scientist seeks truth and fact, candor compels me to confess that I make no claim of priority to the discovery of this comparatively new substance, magnesium dioxide, chemically expressed by the formula $Mg O_2$. Concerning the two chemical combinations with which my name has been associated, magnesium dioxide ($Mg O_2$) or biogen, and zinc dioxide ($Zn O_2$), or dermogen, I might say that, although these metals exist in their native state, apart from oxygen, the chemical force tending to attract them is so great that it has been the aim of diligent experimenters to bind oxygen to both bases in such a manner that in appropriate media the oxygen could be readily liberated, diffused, and appropriated for therapeutic exhibition, either internally or externally, as the clinical need of oxygen might be indicated. To quote and paraphrase that famous French Academician, Renan, I might say that without doubt "chemistry, like all that is organized, is subject to the law of gradual development."

The first reference to this substance may be found in the 1881 edition of the Gmelin-Kraut *Chemistry*, Volume ii, Part 2. This authority was not positive and could not predicate its manufacture in sufficient quantities by any process known to him.

Thénard obtained it as a gelatinous body by the action of hydrogen dioxide. He stated expressly, however, that this compound parted with its oxygen at a temperature 0° C., and that at a higher temperature it would liberate all its oxygen and become inert. Magnesium dioxide has been mentioned several times in the German technical papers, and various persons have applied for patents for the manufacture of the new substance.

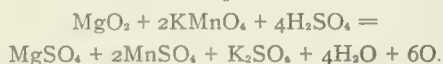
At the scientific Congress held at Aix-la-Chapelle, Professor Janke discussed $Mg O_2$ as a therapeutic agent and expressed the belief that the difficulty in producing it would be finally overcome. Julius Meyer, writing in the *Berliner Berichte*, 1901, Volume iii, page 3600, describes the action of other dioxides on magnesium.

The crude attempts of Wagnitz and Opperman, in seeking to obtain $Mg\ O_2$ and their premature announcement that they had produced it, led to the exposure and fiasco of the "Vitafer" establishment in Berlin. It was at this juncture that I was consulted by the chemist of the Vitafer establishment, and after much study and experiment, I succeeded in obtaining a stable product of magnesium dioxide by entirely different processes from those employed in the futile attempts of other investigators. Magnesium dioxide now occurs as a white granular powder containing about twenty-five per cent. of $Mg\ O_2$ partly soluble in water, alcohol, or ether, but entirely soluble in acid media.

If magnesium dioxide powder is heated in a porcelain crucible at Bunsen burner temperature, oxygen is set free. This may be demonstrated by the rekindling of a smouldering match. The liberation of the oxygen may be more easily accomplished than by subjecting this product to a high temperature, for it is readily soluble in any acid, however dilute, and this fact makes it admissible for therapeutic purposes.

The perchromic acid reaction is characteristic of dioxides. If ether with a few drops of a mixture of potassium hyperchromate and concentrated sulphuric acid is added to a small quantity of magnesium dioxide, dissolved in water, the perchromic acid will combine with the ether and form a light blue liquid. This simple test is sufficient to demonstrate qualitatively the presence of the dioxide.

To determine the quantity or percentage of oxygen in magnesium dioxide, the following test is recommended: Potassium permanganate and magnesium dioxide react upon each other by the liberation of oxygen and mutual reduction upon the addition of dilute sulphuric acid as follows:



A decinormal solution of potassium permanganate is used for the quantitative determination of magnesium dioxide, and if $\frac{1}{100}$ of the molecular weight of this dioxide in grammes, based upon hydrogen as a unit equals 0.28 gramme, is weighed out according to the foregoing equation, the number of c. c. of $KMn\ O_4$ (potassium permanganate) used will show the quantity of oxygen present in $Mg\ O_2$. When the reaction of dioxide and potassium permanganate ceases, the slightest excess of the latter is sufficiently revealed by its faint pink color.

The existence of $Mg\ O_2$ having been thus verified, the physiological absorption of the oxygen evolved from magnesium dioxide, after ingestion, can be approximately estimated. It is well known

that uric acid is insoluble, but, if oxygen unites with it, the uric acid through oxidation is decomposed into two innocuous bodies—alloxan and urea—which are easily soluble in water. This change and reaction take place in the manner expressed by the empirical formula:



It may be assumed, and chemical analyses have confirmed my own observations, that the oxygen which exists in double combination with magnesium is released in the animal organism by the action of the acids therein, even when the latter exist only in small quantities. Free oxygen acts upon uric acid in the body much in the same manner as it does in the test tube.

Admitting that the lungs are the special organs which exercise supreme power over the constant demand for oxygen by the organism, the law of compensation should be equally applicable to these organs as to others. According to physiological precedent, and in the light of recent teaching, it cannot be guaranteed by authority that no other provision is made for oxygen or that the thoracic viscera are the exclusive purveyors of this life-bestowing element to the human economy. Such absolute infallibility would make life itself subject to the relentless tyranny of the lungs. While there can be no doubt that the lungs must be considered the royal route for oxygen to the tissues, it may be conceded that in the event of limited capacity, obstruction, or any indisposition on the part of these organs, an agent such as magnesium dioxide, capable of contributing a constant quantity of oxygen, must in time prove a most resourceful therapeutic measure. Nature is always resourceful, and in structure or function does not restrict the human organism to a single chance, and the utilization of the double oxides as oxygen-carriers, may be regarded as a benefaction of chemistry to supplement Nature's supply of oxygen when the demand for it on the part of the tissues is clamorous.

The atomic value and destiny of oxygen in the human economy may indicate the therapeutic status of these double oxides by accounting for the peculiar and remarkable properties of the nascent oxygen evolved.

If the union of atoms is attended with an ever-increasing evolution of heat, as they press together in closer relationship, their dissolution of partnership is equally endowed with an energy corresponding to the sum of the forces which brought them together. In other words, if the chemical union of the double oxides can be regarded as a process of compression of the oxygen atoms into a small bulk, they would upon separation have a diffusive capacity exactly in the same ratio as their

stored energy. The gaseous element evolved by the splitting apart of these atoms is oxygen in its nascent state. The hypothesis has been adduced by some authorities that at the moment of generation the oxygen becomes O_3 , or ozone, and in support of this theory they call attention to the ozone tang in the atmosphere of laboratories when oxygen is being developed from any metallic dioxide; also to the iodide of starch and guaiac test for this ozone. Whether or not the resultant gas in the body is the evanescent element termed "ozone" cannot be positively stated, as such transmutation of the elements is not definitely appreciable by any chemical or physical process which would attempt to distinguish as to the independent value of these atoms or their subdivisions in the human economy. Although resting on a slender basis, the idea is entirely justifiable as a working hypothesis, for whether it is O_2 or O_3 that is liberated, it is oxygen in its pristine integrity, or oxygen of such high atomic mobility and physiochemical action that its diffusibility, absorption, and bactericidal power are greatly enhanced. The recent success of Jaubert and Robin, of Paris, in producing an abundant supply of oxygen from lithium dioxide more conveniently and economically than by other methods, cannot fail to add to the commercial importance and utility of this and kindred peroxides. It also serves to establish the fact that oxygen thus generated is infinitely more expansive and penetrating than that derived from the usual sources. As oxygen is inseparably associated with all forms of life, it would seem almost an attempt at supererogation to discuss its use as a therapeutic measure, and in view of my own limitations it would be improper. The multiplication of the evidence in favor of the remedial worth of biogen during the past year is the most encouraging assurance of its therapeutic scope. Should any doubt be expressed as to the value of oxygen when administered internally, by means of magnesium dioxide, I might say that the pronounced benefit resulting from the $Mg O_2$ is evidently due to its oxygen equivalent and not to its residual magnesium hydroxide, $Mg (OH)_2$.

The symptomatic effects following the administration of magnesium dioxide cannot be attributed, I am informed, to $Mg (OH)_2$. The increased heart action, the rapid elimination of waste products, accelerated tissue oxidation, and destruction of pathogenic microorganisms in the pathway of $Mg O_2$ point to one conclusion: That it is the oxygen increment to which these results must be traced, and not to the hydroxide of magnesium, $Mg (OH)_2$. The latter is an indifferent substance almost entirely recoverable in the excreta.

The *modus operandi* of the absorption of gases by the human organism is not perfectly understood, and until physiology reveals the entire process it will always be more or less a subject for scientific speculation. In speaking of these physiological problems which defy mechanical explanation, Bunge says: "I think that the more thoroughly and conscientiously we endeavor to study biological problems, the more we are convinced that even those processes which we have already regarded as explicable are in reality infinitely more complex and at present defy any attempt at mechanical explanation."

"Thus we have been satisfied to account for the absorption of food by the alimentary canal by the law of diffusion and osmosis. But we know that, as regards osmosis, the wall of the intestine does not behave like a dead membrane. We know that the intestinal wall is covered with epithelium, and that every epithelial cell is in itself an organism, a living being with the most complex functions. We know that it takes up food by the active contraction of its protoplasm in the same way as observed in independent naked animal cells."

Herbert Spencer, in his work on *Biology*, Part 2, Chapter iii, page 208, says: "The excretion of carbon dioxide and the absorption of oxygen are mainly performed by the lungs in creatures which have lungs; but with all such creatures there continues a certain amount of cutaneous respiration which is important."

A more intimate knowledge of the structure and chemical adjustment of the living cell has already established the fact that it is aerobic, that its functions solicit an uninterrupted supply of oxygen, which must be regarded as the paramount pabulum of its vitality.

What the influence or silent operation of the natural forces on the physiological and physical import of oxygen in the human body may be, is still largely a matter of conjecture and investigation. It is asserted by many eminent authorities that through the agency of electricity and polarization of light, an oxygen "reserve fund" may be extemporized at will to reinforce any pulmonary inefficiency. Frenkel, of Paris, recently referred to the experiments made some time ago by Planer, Hoffman, and Tappeiner, who found that oxygen, when swallowed, passed through the stomach walls.

Sacharoff, a Russian chemist, recently showed that the efficacy of iron in the organism was due to the liberation of oxygen by this metal and not to its capacity for absorption of this element.

C. Bernabei, of Italy, in April, 1902, reported uniformly excellent results from the injection of oxygen into the intestines and from its marked

influence on the elimination of carbon dioxide by the lungs. From its effect on animals in poisoning with various drugs and from its happy results in heart and lung diseases, as well as its good effects on the composition of the blood and urine, he urges a trial of these oxygen insufflations as being responsive, reliable, and convincing from a therapeutic point of view.

All these phenomena would go far to confirm the intraorganic absorption of oxygen. The subject of oxidation, especially of organic bodies, has attracted much attention during the past few years, and much that has been obscure in the field of chemistry and biology promises to be eventually cleared up by the contributions of Bayer, Schiff, Bodlander, Michael, and Rogovin. In this country, Draper and Brown-Séquard proved, years ago, that the contractile power of the muscles of cadaveric tissue could be restored by the direct application of oxygen or oxygenated arterial blood. The restoration of contractility was by no means imperfect or transient. In one instance it continued two hours. The recent experiments of Professor Jacques Loeb and Professor David J. Lingle, of the University of Chicago, along parallel lines, would indicate that tissue is capable of absorbing oxygen under the most adverse circumstances.

The utility of the magnesium dioxide when introduced into the economy is evidenced by the marked improvement and rapid subjective symptoms induced. This may be explained by the fact that an oxygen carrier, such as $Mg\ O_2$, breaks down when administered internally and liberates a more active and less irritating gas than oxygen which may be generated by other means. Accepting this as a postulate of the increased chemical energy of this double oxide, the author is quite willing to let its merits be determined by clinical tests, and expresses his conviction that such will support the contentions here set forth and that these dioxides will secure recognition by virtue of their high percentage of oxygen and prove of service to the practitioner.

Therapeutical Notes.

Yolk of Egg Subcutaneously.—Bayle (*Répertoire de pharmacie*, quoted by *Revue médico-pharmaceutique* for August 15, 1903) uses yolk of egg subcutaneously instead of lecithin, on account of modifications the latter must undergo in process of manufacture. Lecithin also causes anorexia and diarrhoea. Bayle dilutes the egg yolk with its weight in salt solution 7 to 1,000 with aseptic precautions, and injects it subcutaneously, not intramuscularly. The dose is from 150 to 180 minims, although Bayle has injected

555 minims, representing 18 grains of lecithin, without accident.

Hypodermic Medication in Syphilis.—*Journal de médecine interne* for November 1, 1903, gives Lafay's formula, which he calls his isotonic solution.

- R. Mercury biniodide { of each .5 grammes (75 grains);
Dry sodium iodide {
Normal salt solution...100 grammes (3½ ounces).
M. Inject into muscles, daily, 6 drops.

Brousse's mixture, also used by Grasset, is:

- R. Mercury biniodide...10 centigrammes (1½ grains);
Potassium iodide.....20 centigrammes (3 grains);
Sodium cacodylate...50 centigrammes (7½ grains);
Distilled water, enough to make.....10 grammes (2½ drachms).

M. Inject 15 to 30 minims every 2 days, for 10 days; suspend for 5 days; 10 monthly injections for 3 months.

Ciliary Blepharitis.—Painblan, of Lille, gives the following treatment in *Journal de médecine interne* for November 1, 1903. In the early stages, apply compresses saturated with:

- R. Zinc sulphate.....50 centigrammes (7½ grains);
Boiled water.....50 grammes (1½ ounces).
M. Lotion.

If crusts have formed, remove them with hot vegetable poultices, wash the eyes with boric acid solution, and apply:

- R. Calomel20 centigrammes (3 grains);
Vaseline10 grammes (2½ drachms).
M. Eye ointment.

In a later stage, where there is much swelling, the following is preferable:

- R. Yellow mercury oxide.10 centigrammes (1½ grains);
Vaseline10 grammes (2½ drachms).
M. For the eyelids.

If ulceration has occurred, do not use ointments; return to the zinc sulphate, 1 to 100, and cauterize with silver nitrate, 1 to 50, or the tincture of iodine.

For Shingles.—E. T. Blake (*Eczema and Its Congeners*, 1902) gives the following as the best local application for shingles:

- R. Cocaine hydrochloride.....10 parts;
Ichthylol20 parts;
Flexile collodion.....500 parts.
M.

Prostatorrhœa.—Finger (*Médecine moderne*, for November 4, 1903) treats this disease as follows:

- R. Potassium iodide.....2 grammes (30 grains);
Pure iodine.....5 centigrammes (¾ grain);
Extract of belladonna..2 centigrammes (⅓ grain);
Cacao butter.....sufficient to make 10 suppositories.
M. Introduce one, morning and evening.

Cold Baths for Crepitant Synovitis.—P. Derocque, according to *Presse médicale* for December 2nd, has reported to the medical society of Rouen a case of double crepitant synovitis of the ankle cured in thirty-six hours by cold bathing and walking. After two baths in running water at a temperature of 17° C. (62.6° F.) the patient was able to take a long walk over hilly country without fatigue. The crepitation disappeared in thirty-six hours. Derocque says he borrowed the idea from veterinary surgery, which treats synovial inflammations in the horse after this fashion.

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NEW YORK, SATURDAY, DECEMBER 19, 1903.

THE NAVAL MEDICAL SERVICE.

Surgeon General Rixey's report for the year ending June 30, 1903, has just been published. It bears testimony to many improvements of the service and teems with recommendations for its further betterment. It was for several years humiliating to reflect that the medical corps of the navy, short as it was of men, was unable to fill its vacancies with those of desirable attainments. Now, however, owing to the recent intelligent action of Congress in authorizing an increase of the corps by 150 officers, twenty-five to be appointed yearly, and providing for a force of acting assistant surgeons, the regular corps seems likely to be brought up to the requisite force in numbers and efficiency. The provision for contracting with acting assistant surgeons appears to have been highly judicious, for thereby there is obtained a body of young medical men from which the regular service has drawn a number of accessions and is likely to go on drawing them. The acting assistant surgeon learns much during his contract service that particularly fits him for a commission. First of all—and perhaps that is the principal thing—he is enabled to convince himself from substantial data that a life long career in the navy either is or is not congenial;

hence probably fewer early resignations will be received from commissioned officers who have first served under contract than from those commissioned at the start.

Dr. Rixey tells us that the officers of the medical corps of the navy are dissatisfied with their present grade designations, and he recommends Congressional action authorizing the following changes: Surgeon admiral for surgeon general, surgeon captain for medical director, surgeon commander for medical inspector, surgeon lieutenant commander for surgeon, surgeon lieutenant for passed assistant surgeon, and surgeon lieutenant (junior grade) for assistant surgeon. Odd as these proposed titles may strike the civilian, if our naval brethren would feel their dignity enhanced by them, we hope they will be authorized.

At the close of the fiscal year the first class, consisting of twelve members, had graduated from the new Naval Medical School, and experience has already shown the great value of the training it affords to the novice. Indeed, it could not well have been otherwise, for naval medicine is in a certain sense a specialty, not only as regards departmental relations and the etiquette of the service, but also in the matter of actual practice.

The naval hospitals, according to the surgeon general, are all in need of enlargement, and many of them ought to be remodelled. With the exception of the hospital in New York, he says, not one of them "approximates to the requirements of the most advanced medical and surgical procedure." A new hospital for the Naval Academy is to be built, we are gratified to learn. It was found that the hospital first planned could not be built for the amount of money available for the purpose, but the plans have been so revised as to enable the institution to be constructed. However, the surgeon general is still of the opinion that the appropriation originally contemplated, one of \$200,000, is none too large.

Special reports by individual naval surgeons, many of them of great interest, are appended to the report, and much statistical matter is given. From the entire document we must conclude that the medical service of the navy has made great advances within very recent years, and bids fair to improve still further before long.

FURTHER DATA ON THE ÆTIOLOGY OF THE
AFRICAN SLEEPING SICKNESS.

That exceedingly fatal disease, the endemic meningoencephalitis of certain regions of Africa, commonly known as the African sleeping sickness, has recently been investigated anew by Mr. Cuthbert Christy, by Dr. Aldo Castellani, by Mr. George C. Low and Dr. Castellani in conjunction, and by Mr. Low alone. The outcome of their investigations is given in the second number of the Royal Society's *Reports of the Sleeping Sickness Commission*, dated November, 1903.

The drift of all these gentlemen's observations is in the direction of exculpating the *Filaria perstans* in the matter of the ætiology of the disease, notwithstanding the fact that such an excellent observer as Sir Patrick Manson had surmised from the apparent coincidence of the disease and of the parasite that it might be at the bottom of the trouble, and it tends more and more to the establishment of an ætiological relation with a trypanosoma. The observation is corroborated that the filaria is not found more frequently in the victims of the disease than in their healthy associates. On the other hand, bodies thought to be identical with the amœboid development forms of *Trypanosoma Brucei* have been found by Castellani in the cerebrospinal fluid of twenty out of thirty-four sufferers from the sleeping sickness.

In an appendix to the Report on Sleeping Sickness from its Clinical Aspects Mr. Low sums up substantially as follows: There are areas where sleeping sickness exists and *Filaria perstans* is absent. There are areas where *Filaria perstans* is very common and yet there is no sleeping sickness. There are areas where both sleeping sickness and *Filaria perstans* are found, the parasite existing, however, in the blood of the healthy as well as in that of the sick. Its occurrence in such large numbers of healthy persons, both in areas with sleeping sickness and in those without, shows, he says, that this worm probably produces no pathological symptoms whatever. To the contention that, since *Filaria nocturna* does not always cause symptoms of disease, the same may be the case with *Filaria perstans*, he answers: "One has only to look for a moment at the sites of selection in the human body of those two nematodes to see that this does not follow at

all. The adult, or parental, forms of *Filaria nocturna* live in the lymphatics, and the changes they give rise to are purely mechanical. Anything may at any time cause the death of the parasites, or a collection of a number may block the tube in which they lie, and consequent changes involving the lymphatic system are then apt to [be?] set up. In the case of *Filaria perstans* it is quite different; the adults here are living in the connective tissues of the mesentery, and all that could happen by their death would be perhaps a little local inflammation, though it is improbable that even this would take place."

The report is illustrated with twenty-nine colored drawings of the trypanosoma and with maps showing the distribution of sleeping sickness, that of *Filaria perstans*, that of banana cultivation, and that of natives accustomed to wear clothing in equatorial Africa. It appears that the disease is almost limited in area to a strip only a few miles wide bordering upon Lake Victoria Nyanza, also that it is almost identical with the area of prevalence of *Filaria perstans*, with that in which the banana is cultivated, and with that in which the natives wear more or less clothing, the line of demarcation between the clothed and the absolutely naked being everywhere distinct. These matters were inquired into for the reason that some connection between the presence of the filaria, the cultivation of the banana, and the wearing of clothing with the prevalence of the disease had been suspected.

THE MICROORGANISM OF SCARLET FEVER.

The announcement made on December 15th at a meeting of the Boston Society of Medical Sciences, by Dr. Frank Burr Mallory, associate professor of pathology at Harvard, seems likely to bring our knowledge of scarlet fever up to the level of that already attained in regard to many infectious diseases. Until the ætiology of any disease is clearly established, our knowledge of the way to deal with it must, in the nature of things, be largely empirical. It is only in the removal or overcoming of the cause that medicine really becomes a scientific art; the mere counteracting of effects, though, of course, better than nothing at all, is far from ideal medicine.

Dr. Mallory considers that he has at length discovered the *causa causans* of scarlet fever, not in

a bacterium, where most investigators have up to now been looking for it, but in a protozoon, as in the case of malaria. This protozoon he has found in the epithelial cells of the skin and tongue and in the superficial lymph vessels and spaces of the corium. Of course, as Dr. Mallory himself points out, the mere discovery of the presence of these bodies does not of itself prove their causal relation with the disease. Koch's laws, in this as in other cases, must be satisfied before such a claim can be made. But the persistence with which the search for a bacterial cause, so earnestly carried out by numerous investigators, basing their search on analogy with what is absolutely known of other infectious diseases, has hitherto proved elusive, suggests that a change of direction in the search may ultimately place, not only scarlet fever, but measles, small pox, etc., in the same rank as regards our knowledge of them, with diphtheria, typhoid fever, tuberculosis and other infectious or contagious diseases whose ætiology is now well established.

THE REVIVAL OF BICYCLING.

Popular attention in New York has been recently directed to the six day bicycle contest in Madison Square Garden, and if one may judge from the number attending the contest, the interest in bicycling is fully as widespread, though possibly not so keen, as it was a few years ago, when bicycling was the fashionable as well as the popular sport. It is questionable whether the cause of bicycling is helped by these exhibitions, which in the task which they impose upon the riders involve almost brutal hardships. However, the development of professionalism in any sport appears to be an unavoidable evil, and so much good has been done by the sport of bicycling that anything that encourages the use of bicycles among the general public may be looked upon with a certain amount of approbation, or at least of tolerance, despite some incidental objections. The decline in popularity of the bicycle among fashionable people seems to have been quite offset by its increased use for practical purposes of locomotion. In many sections of a large city one may now see clerks and workmen going to and from their work on bicycles, to their great advantage from an economic standpoint in both time and cost, and particularly, in the case of the clerks, to their great advantage physically. The physician's interest in the use of the bicycle lies in its advan-

tages as a means of promoting outdoor exercise among persons of modest means who can only with great difficulty be brought to take regular exercise in the open air. During the bicycle craze much damage was undoubtedly done by fast riding on the part of young people whose hearts were not able to stand the strain, but this tendency seems to have been eliminated to a very great extent, and when this danger is guarded against there is no better method for persons requiring outdoor exercise than the use of the somewhat neglected but none the less valuable bicycle.

THE DIFFUSION OF KNOWLEDGE OF THE ACHIEVEMENTS OF PREVENTIVE SCIENCE.

We are glad to note the vigorous protest raised by Captain and Assistant Surgeon Weston P. Chamberlain, in the *Scientific American* for December 19th, against a statement therein that "by good sanitation, etc., Cuba was *gradually* reducing the number of cases of yellow fever within its borders." Captain Chamberlain very forcibly points out that "not a single case of yellow fever has originated in Cuba since three years ago last September." A few cases, it is true, have been imported, but the fact that in no case has it been allowed to spread, is in itself a triumph of medical administration. When such striking results have been attained, it is important that the public should be made aware of them in their entirety, and not be blinded by such a diluted presentment of the facts as that to which Captain Chamberlain takes exception. And this, not only as "unfair to Cuba and to the United States army medical officers who helped free Cuba from yellow fever," but on the still more important ground that a more general knowledge of the brilliant results attained in preventive medicine is the best antidote to the opposition offered by ignorance to further preventive measures for the public good.

A SUGGESTION FOR MEDICAL MEETINGS.

A constantly repeated source of annoyance at State and other medical meetings lies in the fact that, with the advent of each new paper or speaker, arises the question among some members of the audience, "Who is it?" As to papers, the programme is supposed to guide us, but the fact that papers are constantly omitted or transposed often renders that aid nugatory. With speakers in the discussion, the trouble is still worse. When the subjects of inquiry are well known men, our immediate neighbor can usually enlighten our ignorance; in other cases, we are often compelled to distract the attention of two

or three persons, before we can get our inquiries satisfactorily answered. Why should not the secretary have a large blackboard near him, in full view of the audience, on which should be written the name of the reader and the number of his paper on the programme, and subsequently the name and residence of each speaker as he is given the floor? At a cost of very little trouble, much annoyance would thus be obviated. This method is already followed at some medical society meetings, and we think should be universally adopted.

AN ANTITOXINE FOR DYSENTERY.

In 1898 Shiga discovered that the dysentery bacillus stood in a causal relation to an epidemic of dysentery in Japan, and his results have been confirmed by observers in both Germany and America. In a preliminary note published in the *British Medical Journal* for December 5th, Dr. Charles Todd, of the Lister Institute of Preventive Medicine, announces the preparation of a dysentery antitoxine which, while it does not protect against the bacilli, does offer protection against the toxins secreted by the bacilli. Clinical reports of the results obtained by this antitoxine will be awaited with special interest in this country, since Duval and Bassett have shown that the dysentery bacillus is probably the cause of summer diarrhoea, which is accompanied by such a frightful mortality among infants in our larger cities. If the new antitoxine is what it promises to be, it will offer a means of reducing this mortality.

Obituary.

CORNELIUS M. O'LEARY, M. D.,

OF NEW YORK.

We regret exceedingly to learn that Dr. O'Leary met his death suddenly on Saturday night last, as the result of a railway accident. He was a native of Ireland, but came to this country when a mere boy, and when he grew up became a student in the medical department of the University of the City of New York, where he graduated in the class of 1862. The practice of medicine soon became a secondary matter to Dr. O'Leary, for he was appointed a professor in Manhattan College, and taught in that institution up to the last. He was a frequent contributor to the magazines, and his articles were eminently philosophical. As a man he was exceedingly interesting in conversation and was noted for his tenderness of heart.

News Items.

Society Meetings for the Coming Week:

MONDAY, December 21st.—New York Academy of Medicine (Section in Ophthalmology); New York County Medical Association; Hartford, Conn., Medical Society; Chicago Medical Society.

TUESDAY, December 22nd.—Metropolitan Medical Society, New York (private); Buffalo Academy of Medicine (Section in Obstetrics and Gynecology); Richmond, Va., Academy of Medicine and Surgery; New York Medical Union (private).

WEDNESDAY, December 23rd.—New York Academy of Medicine (Section in Laryngology and Rhinology); New York Pathological Society; New York Surgical Society; American Microscopical Society of the City of New York; Philadelphia County Medical Society; New York Dermatological Society (private).

THURSDAY, December 24th.—New York Academy of Medicine (Section in Obstetrics and Gynecology); New York Orthopædic Society; Brooklyn Pathological Society; Brooklyn Society for Neurology; Roxbury, Mass., Society for Medical Improvement (private); Pathological Society of Philadelphia; Church Hill Medical Society of Richmond, Va.; New York Celtic Medical Society.

FRIDAY, December 25th.—New York Clinical Society (private); New York Society of German Physicians; Yorkville Medical Association, New York (private); Philadelphia Clinical Society; Philadelphia Laryngological Society.

SATURDAY, December 26th.—New York Medical and Surgical Society (private); Harvard Medical Society, New York (private).

Change of Address.—Dr. Jonathan Wright, to 44 West Forty-ninth Street.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending December 12, 1903:

	Week end'g Dec. 12.		Week end'g Dec. 5.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	505	6	326	6
Diphtheria and croup....	428	41	408	68
Scarlet fever.....	249	3	211	19
Smallpox	2	0	1	1
Chickenpox	106	0	104	0
Tuberculosis	266	166	306	163
Typhoid fever.....	68	15	68	12
Cerebrospinal meningitis..	..	7	..	3
Totals.....	1,624	238	1,424	272

At a Meeting of the Board of Directors of St. Bartholomew's Clinic held November 25th Dr. J. P. Tuttle was appointed chief of the department of rectal surgery, and Dr. Y. P. McGowan, chief of the skin and genitourinary department.

The Orthopædic Hospital, of Manhattan, New York city, has received \$5,000 for the endowment of the Esther Gracie Ogden bed, and \$25,000 for the general endowment fund, by the will of the late James King Gracie.

The New York City Training School for Nurses formally opened its new buildings on Blackwell's Island on December 2nd, the dedicatory exercises being held in Jones's Hall. Commissioner Homer Folks presided and, after prayer by Bishop Potter, read a congratulatory message from President Roosevelt.

The Plans for the New Fordham Hospital have been completed. The new buildings, to be situated at the junction of Crotona Avenue and the Southern Boulevard, where Cambreling Avenue ends, land purchased from St. John's College, will cost about \$500,000. They will be constructed of Harvard brick and Indiana limestone, and will accommodate 150 patients at first, but will be enlarged as the growth of the city requires.

The Officers of the Medical Society of the Borough of the Bronx for the current year are as follows: President, Dr. Charles G. Kirchhof; first vice-president, Dr. Frederick W. Loughran; second vice-president, Dr. Charles A. Habersack; treasurer, Dr. Ernst A. W. Wilkens; secretary, Dr. Albert C. Geyser, 352 Willis Avenue. Meetings are held in the Metropolis Theatre building every second Wednesday evening, except during July and August.

New York and New England Association of Railway Surgeons.—At the thirteenth annual meeting of the New York State Association of Railway Surgeons, held at the New York Academy of Medicine, November 12-13, 1903, a vote was taken and unanimously carried to change the name of the association to New York and New England Association of Railway Surgeons. This change will greatly extend the good work of the association and the many benefits to the surgeons and railways in this territory should be mutual. Officers elected: President, Dr. C. G. J. Finn, of Hempstead, L. I.; first vice-president, Dr. G. P. Conn, of Concord, N. H.; second vice-president, Dr. J. P. Creveling, of Auburn, N. Y.; secretary, Dr. George Chaffee, of 338 Forty-seventh Street, Brooklyn, N. Y.; treasurer, Dr. J. K. Stockwell, of Oswego, N. Y.

Academy of Medicine, 17 West Forty-third Street.—The section on Ophthalmology will meet on Monday evening, December 21st, to witness a presentation of cases of Bilateral Ulcus Rodens (Mooren), and Hole in the Macula Due to a Blow on the Eye and Followed by Optic Nerve Atrophy from Hæmorrhage Into the Nerve Sheath, by Dr. Ward A. Holden; Black Spot on the Macula in a Myopic Eye, without Marked Impairment of Vision, by Dr. A. Duane; presentation of instruments and specimens. Dr. E. S. Thompson will read a paper on Observations on the Pathology of the Crystalline Lens.

The section on Laryngology and Rhinology will meet on Wednesday evening, December 23rd, when there will be a presentation of cases, and an exhibition of specimens and new instruments. Dr. Linn Emerson will show a specimen of Nasal Polypus. Dr. Harmon Smith will read a paper on Alarming Hæmorrhage Following Amygdalotomy, Its Cause and Care, and Dr. Henry C. Swain, of New Haven, Conn., one on Some Recent Observations on the Nasal Septum in Non-Adenoid Races. A general discussion will follow.

The section on Obstetrics and Gynæcology will not hold its regular meeting on Thursday evening, December 24th, the date being Christmas Eve.

PHILADELPHIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

	Week ending Dec. 5.		Week ending Dec. 12.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	39	15	67	16
Diphtheria	93	14	91	21
Scarlet fever	126	7	110	8
Typhoid fever	91	10	88	12
Consumption		62		51
Cerebrospinal fever				

The Jewish Maternity Hospital and the Jewish Hospital Association, of Philadelphia, Pa., have each received a bequest of \$8,000 by the will of the late Salena Walker.

American Röntgen Ray Society.—This society met at the University of Pennsylvania, Philadelphia, on December 9th. The programme has been published in a preceding issue. About 300 members were present and an interesting exhibit of apparatus was a feature of the meeting.

Dr. Mihran K. Kassabian is said to be perfecting a combination of the x ray and kinetoscope apparatus by means of which such phenomena as the beating of the heart may be thrown upon a screen and made visible to a large number of observers.

Medico-Chirurgical Hospital Report.—For the month of November, the superintendent of the Medico-Chirurgical Hospital of Philadelphia reports the treatment of 5,591 patients, 1,610 in the surgical dispensary, 962 for diseases of the eye, 571 of the ear, and 594 accident cases.

Influenza in Germantown.—Several physicians in the Germantown district of Philadelphia report that an approaching epidemic of influenza has been observed in that part of the city. Definite statistics or information regarding the extent or virulence of the epidemic are not yet obtainable.

Henry Phipps to Visit Philadelphia.—Henry Phipps, the millionaire philanthropist, is expected to visit this city soon to note the progress made by the Henry Phipps Institute for the treatment of tuberculosis, which he founded, and which has been doing good work since it was opened last February, at 238 Pine Street.

The Kensington Hospital for Women of Philadelphia.—During the month of November sixty-five patients were under treatment. There were thirty-one patients in the hospital November 1st, and thirty-two are under treatment at the present time. Fifty-three operations have been performed. In the dispensary there have been twenty-seven new patients, who have made 208 visits.

The University of Pennsylvania held a supplementary commencement on December 10th and conferred the degree of M. D. on the following gentlemen:

Robert Irvine Bullare, Thomas Francis Bridgman, George Guth, Israel Pemberton, Pleasant Hollingsworth, Norbert Vincent Mullin, Philip Norris, Walter Brown Orbin, William Stewart Russell, William Scott Tinney, and Joseph Adam Wagner.

Injunction Against the Health Board.—It is reported that a preliminary injunction against the Pennsylvania State Board of Health was obtained from the Dauphin county court late on the night of December 5th, restraining them from maintaining a cordon of guards about the town of Enhaut, population about 800, in which there is a case of smallpox, except as to the house in which the case exists. Argument on the motion to continue the injunction will be heard later in the week.

The Henry Phipps Institute Lecture.—The third lecture in the course established by the Henry Phipps Institute will be given in the auditorium of the Witherspoon Hall, of Philadelphia, on Tuesday, December 29th, at 8.30 o'clock p. m., by Dr. G. Sims Woodhead, professor of Pathology at Cambridge University, England. Subject, The Paths of Infection in Tuberculosis. This lecture will be illustrated by slides projected on a screen. The profession is cordially invited. A reception to Professor Woodhead will follow the lecture.

Portrait of Dr. Thomas G. Morton.—A portrait in oil, of the late Dr. Thomas G. Morton, of Philadelphia, will soon be hung in the Pennsylvania Hospital, with which institution Dr. Morton was connected for nearly half a century. The painting will be presented to the hospital by the former resident physicians. The committee which had charge of obtaining the portrait includes Dr. T. Hollingsworth Andrews, Dr. James C. Wilson, and Dr. Frank Woodbury. It will be received for the hospital by Dr. Benjamin Shoemaker. Miss Rebecca Van Trump, of Philadelphia, is the artist.

More Medical Inspectors in Philadelphia.—Dr. Martin, Director of Public Health and Charities, of Philadelphia, will get the big increase in medical inspectors which he asked for, but which Councils' Finance Committee refused to allow, on the ground of the great increase of expense. The change was brought about by the interference of the mayor, in consequence of which the finance committee reversed its action, and the common council, upon the recommendation of the finance committee, amended the annual appropriation to the bureau of health by passing the ordinance providing for fifty inspectors, instead of thirteen, as under the present law, making a total outlay of \$60,000 a year.

Philadelphia Hospital.—The erection of the glass pavilions on the grounds of the Philadelphia Hospital for the tuberculous patients makes a noteworthy addition to this institution. While the present municipal administration has been quite energetic in this direction, it ought not to overlook the fact that the insane, among whom tuberculosis is quite common, should also have facilities for such care. An inspection of the insane department, in which there are now from fifteen to seventeen hundred inmates, shows somewhat inadequate facilities for the isolation or treatment of its tuberculous patients. Would it not be a wholesome innovation to use at least one of these glass pavilions for the tuberculous insane?

The Smallpox Situation in Philadelphia.—In the presence of an epidemic, it is a fallacy to consider that it is abating whenever fewer new cases of a disease are reported for a given week. For the week ending December 12th, sixty-seven new cases of smallpox were reported, thirty-two less than the preceding week. An absolutely correct estimate for a given week, as far as the virulence of the epidemic is concerned, can never be correctly ascertained unless we could know the number of infected persons still in the period of incubation. This also holds good with the mortality, the sixteen deaths reported for the week ending December 12th being no doubt referable to the ninety-nine new cases reported for the week ending December 5th. The epidemic is by no means as yet under absolute control.

Frankford Hospital.—An extensive reorganization movement, and methods for the improvement of the Frankford Hospital, of Philadelphia, are under way. A new board of representative business men will soon take charge, and a representative corps of physicians will be in attendance. To secure funds the Ladies' Aid Society will give a bazaar, the proceeds of which will be applied to the institution. A large additional house has been already purchased. A dispensary is connected with the hospital. The great advantage of this institution is its situation in almost the extreme northeastern part of Philadelphia, whence cases had hitherto to be removed to the Episcopal or St. Mary's hospitals. The staff consists of Dr. R. Bruce Burns, surgeon; Dr. Joseph B. Ball, physician; Dr. John W. Wilkins, gynecologist; Dr. Charles M. Stiles, ophthalmologist; Dr. Frank Walters, laryngologist and aural surgeon; Dr. Charles P. Brady, minor surgery; and Dr. Joseph W. Kenny, resident physician.

GENERAL

Statement of Mortality in Chicago, Ill., for the Week Ended December 12, 1903, compared with the preceding week, and with the corresponding week of 1902. Death rates computed on estimated mid-year populations of 1,885,000 for 1903, and of 1,820,000 for 1902:

	Dec. 12, 1903.	Dec. 5, 1903.	Dec. 13, 1902.
Total deaths, all causes.....	489	478	532
Annual death rate per 1,000.....	13.51	13.22	15.24
Principal causes of death—			
Acute intestinal diseases.....	20	21	24
Apoplexy.....	15	16	12
Bright's disease.....	36	30	28
Bronchitis.....	22	17	20
Consumption.....	48	46	58
Cancer.....	11	26	19
Convulsions.....	10	18	10
Diphtheria.....	11	13	29
Heart disease.....	39	43	39
Influenza.....	3	1	0
Measles.....	3	0	5
Nervous diseases.....	20	29	23
Pneumonia.....	96	77	93
Scarlet fever.....	4	1	5
Suicide.....	11	10	9
Typhoid fever.....	7	10	28
Violence (other than suicide).....	25	23	24
Whooping cough.....	1	1	4

Hospital Sunday, at Newton, Mass., netted the city institution over \$9,000.

Help in the Butler, Pa., Epidemic.—Miss Clara Barton, with a corps of assistants and nurses from the Red Cross Association, has gone to Butler to help take care of the typhoid fever sufferers.

The Ravine Hospital, of Utica, N. Y., constructed for the care of contagious diseases, is now ready for occupation.

The Students of Leland Stanford University, of San Francisco, are said to be suffering from an epidemic of amygdalitis and a temporary hospital is to be fitted up on the campus by the students' guild.

The Dakota County, Minn., Medical Society has reorganized with the following officers: President, Dr. A. M. Adsit; vice-president, Dr. L. D. Peck; treasurer, Dr. J. C. Fitch; secretary, Dr. W. M. Dodge, of Farmington.

The Westminster, Md., Physicians have formed a medical society with a vice-president for each election district, and have elected Dr. J. Howell Billingslea as president, and Dr. Charles R. Foutz as secretary-treasurer.

The Physicians of Montgomery County, Md., have formed a medical association with the following officers: President, Dr. Roger Brooke; vice-president, Dr. Horace B. Haddox; secretary-treasurer, Dr. John L. Lewis, of Rockville, Md.

The Dade County, Fla., Medical Society at its recent meeting on December 5th elected the following officers: President, Dr. R. H. Huddleston; vice-president, Dr. R. B. Potter; secretary and treasurer, Dr. E. W. Pugh.

The South Baltimore Eye, Ear, Nose, and Throat Hospital was incorporated on December 4th for the purpose of treating the indigent free of charge. Among the directors are the rectors of an Episcopal and a Roman Catholic church.

The City Laboratory, of Chicago, Ill., will have Dr. Joseph F. Biehn, of 4023 Wabash Avenue, as its new superintendent, he having won the position by a wide margin from other competitors in the civil service examination.

The Cornerstone of the Home for Incurables at Atlanta, Ga., will be laid on December 30th at Boulevard and Woodward Avenue. The building is being constructed under the auspices of the Atlanta Circle of King's Daughters.

The John M. Norton Memorial Infirmary, of Louisville, Ky., graduated the following nurses on November 25th: Margaret Loeffler, Mabel Pomeroy, McDonald Eustaphieve, Julia Watts, Hortense Miller, Fanny Bogard, and Annie Ford.

The Jefferson County, Wis., Association of Physicians held its first meeting at Jefferson on December 3rd, and elected the following officers: President, Dr. W. W. Reed, of Jefferson; vice-president, Dr. W. F. Whyte, of Watertown; secretary and treasurer, Dr. E. E. Lauder, of Johnson Creek.

The St. Mary's Hospital Training School, of San Francisco, Cal., graduated the following young women on November 23rd: Laura J. Deasy, of Oakland; Elizabeth Gillon, Isabel Moore, Estella V. Ryder, Helen M. Stack, Bessie A. Watson, of San Francisco; Helen B. Sarsfield, of Oakland; and Margaret Sheehy, of Watsonville.

Smallpox at Spangler.—At this mining town near Altoona, Pa., an epidemic of smallpox has broken out, probably because the people are violently opposed to vaccination. When an attempt was made to vaccinate the children at one of the local schools, the teachers barred the doors and refused admittance to the physician.

The Massachusetts Surgical and Gynecological Society, at its meeting at the Hotel Notting-ham, Boston, December 9th, elected the following officers: President, Dr. F. W. Halsey; vice-presidents, Dr. Carl Crisand and Dr. George E. May; treasurer, Dr. Isabel G. Weston; secretaries, Dr. F. W. Colburn and Dr. H. D. Boyd, both of Boston.

Civil Service Examinations for the State and County Service.—The State Civil Service Commission announces general examinations to be held January 9, 1904, including the following positions: Apothecary in State hospitals and institutions; laboratory assistant in State antitoxine laboratory, Albany; physician, fourth and fifth grades of both regular and homœopathic schools. Applications for these examinations must be made on or before January 4th. Full particulars of the examinations and blank applications may be obtained by addressing the chief examiner of the commission at Albany, Mr. Charles S. Fowler.

Medical Society of City Hospital Alumni, of St. Louis.—The annual dinner of the society will occur at the Missouri Athletic Club, 407 Washinton Avenue, on the evening of January 7, 1904. The price per plate will be one dollar. Tickets can be obtained from Dr. John Dean, chairman of the entertainment committee, or from the secretary. Members desirous of inviting professional friends to the dinner must submit their names to the secretary for action of the executive committee, according to our bylaws. The transactions of 1902 may be obtained at the meeting place. Members are requested to notify the secretary by mail of change in address or irregularity in the receipt of notices or copies of the official organ, *The Medical Fortnightly*. R. B. H. Gradwohl, M. D., secretary, 602 Century Building.

St. Peter's Hospital, Albany, N. Y., has made the following changes in the staff: Attending surgeon, Dr. C. E. Davis; attending physician, Dr. T. L. Carroll; obstetrics, Dr. Wansbro; eye and ear, Dr. Adt; dispensary medical staff, Dr. Hap-pel; diseases of children, Dr. Shaw. The surgical service has been rearranged as follows: Railroad surgery, Dr. J. V. Hennessy; general operative surgery, Dr. C. E. Davis; orthopædic surgery, Dr. S. R. Morrow; abdominal surgery, Dr. J. B. Harvie, Troy. The attending physicians are Dr. Henry Hun, Dr. Howard Van Rensselaer, Dr. T. L. Carroll, Dr. Andrew Macfarlane. Ophthalmic and aural surgeon, Dr. G. S. Munson; nose and throat, Dr. C. F. Theisen, Dr. E. E. Hinman; obstetric surgeon, Dr. J. F. Reilly; dispensary medical service, Dr. William Hap-pel, Dr. J. L. K. Shaw, Dr. J. P. O'Brien, Dr. Joseph Lanahan; dispensary surgical service, Dr. J. F. Heffernan, Dr. Joseph F. Cox, Dr. John Gutmann.

The "Shambles of Science" Withdrawn by the Publishers.—The *Shambles of Science* is the title of a work written by the two Swedish lady students who recently figured as the star witnesses in behalf of Mr. Coleridge in the trial, Bayliss versus Coleridge, on which we commented editorially in a recent issue. At the trial, the Lord Chief Justice characterized the book as "hysterical." We now learn that the publishers have undertaken to withdraw it from publication.

Lectures to Missionaries.—The student volunteer band for foreign missions of the Rochester theological seminary has arranged for a course of lectures by physicians of the city on practical medicine. The first of the series was delivered this afternoon in Trevor Hall, on Contagious and Infectious Diseases, by Dr. Bascom. Other addresses will be: Eye and Ear Care in Health and Diseases, by Dr. Bissell; Medical Emergencies, by Dr. Butler; Surgical Diseases and Emergencies, by Dr. Shepard; Obstetrical Emergencies, by Dr. Weiman; Diseases of Children—Infant Feeding, by Dr. Jewett; Materia Medica, by Dr. Hoyt; Bandaging and Surgical Appliances—How to Take Pulse and Temperature, by Dr. Perrin; Diseases of Stomach and Bowels, by Dr. Saunders; Infections and Topical Treatments, by Dr. Blair; Poisons and Their Antidotes, by Dr. Cook; Bacteriology, by Dr. Daly.

Mortality of Michigan During November, 1903.—There were 2,623 deaths reported to the secretary of State for the month of November, or one death less than the number for the preceding month. The death rate was 12.9 per 1,000 population. By ages, there were 412 deaths of infants under one year; 171 deaths of children aged one to four years, inclusive, and 789 deaths of elderly persons over 65 years of age.

Important causes of death were as follows: pulmonary tuberculosis, 158; other forms of tuberculosis, 27; typhoid fever, 80; diphtheria and croup, 112; scarlet fever, 14; measles, 7; whooping cough, 28; pneumonia, 206; cancer, 140; accidents and violence, 194. The number of deaths reported from typhoid fever was less than during October. Tuberculosis also showed a decrease, while diphtheria, scarlet fever, and other diseases of children showed a considerable increase. There were no deaths from smallpox during the month. One death from chickenpox was reported from Ashland township, Newaygo county.

Health Officers' School in Indiana.—The Indiana legislature of 1903 authorized the State Board of Health to require a certain sanitary training of the health officers and also authorized the holding of a school for health officers. The health officers of the State number 516, and two schools are held annually to accommodate this number. The first school was held in June, and to it were summoned all county and city health officers. The second school, which is exclusively for town health officers, will be held December 16th-17th at Indianapolis. Among the teachers for this school are Ex-Surgeon-General Sternberg, Surgeon-General Wyman, Dr. F. G. Novey, of Michigan University; Dr. Chas. O. Probst,

secretary American Public Health Association, and secretary Ohio State Board of Health; Dr. Frank Allport, Chicago; Professor David Dennis, of Earlham College, and Professor Coulter, and Professor Burrage, of Purdue University. The headquarters will be in the New Claypool hotel, and all sessions will be held in the auditorium of that hotel. The lectures will all relate to subjects pertaining to the practical application of disease prevention measures. The Honorable William L. Taylor, ex-attorney general, who has written and revised the health and medical laws of the State, will expound the State and United States laws relating to public health and quarantine.

The Enno Sander Prize.—The essayist securing first place will receive a gold medal of the value of one hundred dollars. The essayist securing second place will receive a life membership in the association, of the value of fifty dollars. Subject of the competition for 1904: The Relation of the Medical Department to the Health of Armies. Conditions of the competition:

1. Competition is open to all persons eligible to active or associate membership in the Association of Military Surgeons of the United States.
2. The prize will be awarded upon the recommendation of a board of award selected by the executive committee. The board will determine upon the essay to which the prize shall be awarded, and will also recommend such of the other papers submitted, as it may see fit for honorable mention, the author of the first of which shall receive a life membership in the association.
3. In fixing the precedence of the essays submitted, the board will take into consideration—primarily—originality, comprehensiveness and the practicability and utility of the opinions advanced, and, secondarily, literary character.
4. Essays will consist of not less than ten thousand, nor more than twelve thousand words, exclusive of tables.
5. Each competitor will send three typewritten copies of his essay in a sealed envelope to the secretary of the association, so as to reach that officer at least one month before the next ensuing annual meeting, in the present case on or before September 10, 1904.
6. The essay shall contain nothing to indicate the identity of the author. Each one, however, will be authenticated by a *nom de guerre*, a copy of which shall, at the same time as the essay, be transmitted to the secretary in a sealed envelope, together with the author's name, rank and address.

7. The envelope containing the name of the successful competitor will be publicly opened at the next succeeding annual meeting of the association, and the prize thereupon awarded.

8. The successful essay becomes the property of the Association of Military Surgeons of the United States, and will appear in its publications.

Board of Award, 1904: Lieutenant-Colonel John Shaw Billings, U. S. Army; Brevet Brigadier-General George Ryerson Fowler, New York; Surgeon Henry Gustav Beyer, U. S. Navy.

John Cropper Wise, President; James Evelyn Pilcher, Secretary, Carlisle, Pa.

Pith of Current Literature.

MÜNCHENER MEDIZINISCHE WOCHENSCHRIFT.

November 10, 1903.

1. Psychiatry and Experimental Psychology in Germany,
By W. WEYGANDT.
2. Yeast and the Fermentation Test, By E. MÜNZER.
3. Complications of Gastric Cancer, By F. KAUFMANN.
4. Hyperhidrosis Universalis, By F. MÜLLER.
5. Cerebrospinal Syphilis, By A. SCHITTENHELM.
6. Pathological Findings in a Case of Landry's Paralysis,
By MÖNCKEBERG.
7. Two Cases of Injury in Hydrocephalic Brains,
By MARCKWALD.
8. A Case of Spastic Ileus, By PANKOW.
9. Gangrene of the Leg in Afebrile Puerperium,
By O. SCHÄFFER.
10. Family Amaurotic Idiocy, By A. MÜLBERGER.
11. Case of Polydactylia, By NORDHOF.
12. Practical Obstetrics, By A. RIEDEL.

2. **Fermentation Test.**—Münzer says that zymin—permanent yeast—cannot be used for the fermentation test for sugar, as it shows signs of fermentation itself when brought into contact with water. That it actually gives off carbon dioxide under these conditions, is proved by the prompt absorption of the gas by sodium hydrate.

4. **Universal Hyperhidrosis.**—Müller reports the case of a young woman, twenty years of age, who presented the picture of a general hyperhidrosis, together with a tachycardia and cessation of menstruation. Neurasthenia was diagnosed and treatment was directed toward the alleviation of symptoms by every known device without success. The patient died two months after leaving the hospital.

5. **Cerebrospinal Syphilis.**—Schittenhelm describes two cases. The first was a case of incipient locomotor ataxia which gave no other clinical signs than of a reflex immobility of the pupil. The post mortem examination of the spinal cord showed distinct sclerosis of the posterior cord. The second case was one of cerebral syphilis in which the clinical symptoms appeared to be those of a cerebral tabes. Suitable treatment resulted in a cure after a differential diagnosis of syphilis had been made.

8. **A Case of Spastic Ileus.**—Pankow narrates the details of a case in which three days after the performance of a nephrotomy and of hysterectomy for fibroids, the patient showed signs of intestinal obstruction. The abdomen was again opened, and a spastic ileus of the descending colon was found. An artificial anus was made. Three months after the second operation, the gut became spontaneously permeable, and the intestinal fistula was closed.

9. **Gangrene in the Puerperium.**—Schäffer records the case of an unmarried primipara who developed a gangrene of the leg on the tenth day post partum, in the muscle and skin areas supplied by the peripheral branches of tibial arteries, mainly the anterior tibial. The gangrene was diffuse, despite the permeability of the smaller

branches. As causes for the gangrene, Schäffer finds the debilitated state of the patient, due to poor nourishment and worry during the pregnancy. She had a chlorosis, with a lasting hypotonia of the erythrocytes. Other causes were varices of the thigh and genitals during pregnancy and an acute gonorrhœa acquired at the time of conception. During the entire process there was no rise of temperature until the gangrene had made considerable progress. The genitals presented no abnormality. The patient recovered after operation.

10. **Amaurotic Family Idiocy.**—Mülberger reports the case of two children of good family with no hereditary taint. The cases differ from those usually reported in that the ophthalmoscopic examination showed that the atrophy of the optic nerve preceded the diseased condition of the macula.

BERLINER KLINISCHE WOCHENSCHRIFT.

November 9, 1903.

1. A Method of Diagnosing Typhoid Fever,
By M. FICKER.
2. Inhalation of Calcium Dust and Pulmonary Tuberculosis,
By P. RECKZEH.
3. Smooth Atrophy of the Tongue and Its Relation to Syphilis,
By F. LESSER.
4. Multiple Cerebral Paralysis Involving the Acoustic Nerve,
By C. ARONSOHN.

1. **Diagnosis of Typhoid Fever.**—Ficker has prepared a solution by which the Widal reaction may be obtained without the presence of living typhoid bacilli in culture. The reaction is distinctly visible to the naked eye and gives positive results. At the ordinary temperature of the room, it appears in a few minutes. The solution is a sterile, slightly turbid fluid, and will keep for at least nine months. It can be made in from twelve to fourteen hours, but not in the ordinary laboratory.

2. **Calcium Dust and Tuberculosis.**—Reckzeh has examined a number of workers in marble, in view of the belief that these workers are especially susceptible to tuberculosis of the lungs and are practically incurable. The persons examined suffered from every variety of the disease, from a simple apical catarrh to bilateral processes with cavity formation. Inhalation of marble dust had no influence one way or the other.

3. **Atrophy of the Tongue.**—Lesser says that for the diagnosis of syphilis in cases of smooth atrophy of the tongue, a decided change in tissue consistence must be found. In only forty-four per cent. of such cases, could syphilis be anatomically demonstrated, so that the author is forced to the conclusion that there is a decided connection between syphilis and a light glossitis. It is not possible always to decide if a smooth tongue is a sign of previous syphilis; but if, in addition to the smoothness, scars can be found, Lesser regards a previous syphilis as certain.

4. **Multiple Cerebral Paralysis.**—Aronsohn reports a case of a patient thirty years of age who after a cold, showed a paralysis of the facial, tri-

geminal and acoustic nerves. The author thinks the case to have been one of multiple neuritis which began peripherally and gradually became central. The condition improved after the administration of potassium iodide, although there was no possibility of a syphilitic affection. The author thinks the base of the skull to have been the seat of the affection. Seven months after the onset, there was still deafness in the left ear.

ZENTRALBLATT FUER GYNAEKOLOGIE.

October 31, 1903.

1. Chorioepithelioma and Ovarian Tumor, By J. KREBS.
2. Radical Cæsarean Section in Pregnancy Complicated by a Cervical Myoma, By WESTPHAL.
3. Instrument for Removing Incarcerated Pessaries, By H. PIWNICZKA.

1. **Chorioepithelioma.**—Krebs reports the autopsy findings in a case of chorioepithelioma complicated by an ovarian tumor. The examination of the wall of the ovarian cyst showed it to be a lutein cyst, showing the now frequently observed coincidence of a mole pregnancy, chorioepithelioma, and lutein cysts of the ovary. The finding probably proves the correctness of Fränkel's and Pick's views that excessive lutein production may be an evoking factor in the production of malignant deciduoma.

2. **Radical Cæsarean Section.**—Westphal narrates the case of a forty-two year old multipara who presented a myoma of the cervix in addition to a six months' pregnancy. Premature labor had begun, so a Cæsarean section was performed. The horizontal incision of Freund was made in the fundus and a supravaginal amputation of the uterus was performed. The mother recovered. The case was notable for the very rapid growth of the myomatous tumor during the pregnancy.

November 7, 1903.

1. Vaginal Operations Without Anæsthesia, By FROMMER.
2. Excessive Stretching of the Wall of a Bilocular Uterus, By JURINKA.

1. **Vaginal Operations Without Anæsthesia.**—Frommer reports several cases where rather extensive plastic operations were performed without general anæsthesia. The patients did not complain of great pain at any stage of the operation. The author suggests that when such operations are necessary and the patients, for the usual well-known reasons, cannot take a general anæsthetic, the operation be performed without narcosis or with the aid, at the most, of local anæsthesia.

PRESSE MEDICALE.

November 11, 1903.

Circulation of the Cerebrospinal Fluid, By F. CATHELIN.

Cerebrospinal Fluid.—Cathelin recalls that there is no difference in the fluid of the endyma, that of the cerebral ventricles, and that in the subarachnoid cavities. He considers it as proved that the plexus chorioides, reddish granulations in the cerebral ventricles, secrete this fluid, as other glands of the body secrete other fluids. It

has been demonstrated that a drug injected into the olfactory nerve of a rabbit, follows the route of the perineural sheaths, then passes directly into the lymphatic spaces of the nasal mucosa whence it reaches the ganglia of the neck and of the nasopharyngeal cavity; but it never reaches the surface of the mucosa. Substances injected into the blood, or introduced into the stomach, are found in the cerebrospinal fluid. In ventricular hæmorrhage, tuberculous meningitis, acute syphilitic meningitis, chronic mercurial poisoning, potassium iodide and mercury have been found in the fluid; in alcoholic intoxication, alcohol has been found therein; and in jaundice, the fluid has been colored yellow. Koch's bacillus, in tuberculous meningitis, found only in the fluid at first, soon enters the general circulation; cerebrospinal fluid from a uræmic, injected into a guinea pig, will soon kill the animal. A loss of over a litre and a half of the fluid from traumatism, surgical or otherwise, is soon replaced. Cathelin says the fluid comes from the blood and returns thither by way of the lymphatic circulation. It comes first from the plexus chorioides, which are fed by blood vessels; pours into the arachnoid sac, a reservoir and discharging apparatus, but not an excretory one; circulates through the circumvascular sheaths, wrongly called lymphatic; goes to the juxtavertebral lymphatics and their ganglia; and, greatly modified, returns to the lymphatic duct and empties with the lymph into the subclavian vein, soon to regain the chorioid glands and recommence its journey.

November 18, 1903.

1. The Technical Teaching in the Ophthalmic Clinic of the Hôtel-Dieu, By F. DE LAPERSONNE.
2. Experimental Aortic Atheroma Produced by the Injection of Adrenalin Into the Veins, By O. JOSUÉ.

1. **An Ophthalmic Clinic.**—De Lapersonne divides his pupils into two classes, those who simply wish to receive the general medical license and who study only the external diseases of the eye and eyelid, refraction by keratoskiascopy, ophthalmia neonatorum, iritis, glaucoma, and cataract, and those who expect to become specialists and must add to the foregoing accurate knowledge of the ophthalmoscope, bacteriology, and operative surgery, besides therapeutics.

2. **Experimental Atheroma.**—Josué produced aortic atheroma in the rabbit by prolonged intravenous injections of adrenalin without traumatism of the blood vessel in question. He injected 3 drops of the 1-1,000 solution into the veins of the ear, and found that 4 drops proved rapidly fatal. The lesions presented were typically calcareous. Careful study should therefore be given post mortem to the suprarenal capsules of those dying of atheroma.

REVISTA DE MEDICINA Y CIRUGIA DE LA HABANA

October 25, 1903.

1. Antagonism Between Quinine and Strychnine, By VALDÉS DAPENA.
1. **Quinine and Strychnine.**—Dapena has carried out, upon dogs, a series of experiments simi-

lar to those of Robaschi, who demonstrated the existence of a marked antagonism between quinine and strychnine through hydropertic injections of those drugs into frogs. Dapena draws the following conclusions from his studies: (1) Quinine acts upon warm-blooded animals in the same manner as upon cold-blooded ones, exercising an influence antagonistic to strychnine. (2) The higher the animal in the zoological scale, and the more highly developed its nervous system, the larger the dose necessary for this antagonistic influence. (3) Animals treated with strychnine endure a dose of quinine double or triple—according to the animal's zoological rank—that endured without strychnine. (4) Animals treated with quinine endure a dose of strychnine double or triple—according to the perfection of the nervous system—the amount endured without quinine. (5) In all cases of strychnine-poisoning, heroic doses of quinine should be employed, as these undoubtedly exert a favorable influence.

RIFORMA MEDICA.

September 23, 1903.

1. The Hæmolytic Properties of Extracts from the Various Organs and from Malignant Tumors,
By F. MICHELI, and M. DONATI.
2. Clinical Contribution to the Study of Nervous Leprosy,
By G. MANTELLA.
3. Clinical, Bacteriological, Hæmatological and Histological Studies on Chronic Pemphigus (*To be continued*),
By T. SECCHI, and A. SERRA.

1. **Hæmolytic Substances in Organs and in Malignant Tumors.**—Micheli and Donati found that both the tissues of various organs and the cells of malignant tumors contained certain hæmolytic substances which might be compared to, or even identified with, the hæmolytic substances in the blood serum. The authors also showed that these hæmolytic substances were products of autolysis, for when an animal was killed and his organs were immediately removed and extracted for hæmolysins, no hæmolytic substances were found, while if the same thing was done four or five hours after death, the organs having been meanwhile kept at room temperature, the hæmolytic substances were found. The hæmolytic substances from malignant tumors behaved in all respects like those of the organs, but they were not resistant to heat like the latter, and were not soluble in alcohol. but this need not necessarily mean that they were different in structure from the hæmolysins of the organs.

September 30, 1903

1. A Streptothrix Isolated from the Subsoil,
By F. LOMBARDO-PELLEGRINO.
2. Clinical, Bacteriological, Hæmatological, and Histological Observations on Chronic Pemphigus,
By T. SECCHI, and A. SERRA.
3. Injections of Iodized Oil in Surgical Tuberculosis,
By C. MASTRI.

1. **Streptothrix Viridis.**—Lombardo-Pellegrini has isolated a new streptothrix, which he styles viridis, from its green pigment, in the sub-

soil of the city of Messina. He finds that this organism can produce in animals lesions identical with those produced by the bacillus of tuberculosis. Lombardo-Pellegrini does not positively assert that this is a new species, inasmuch as the green pigment is not always found, but it is sufficiently characteristic to make a description of the germ and its action interesting. A noteworthy fact is that the germ kills, not only through its pathogenic action, but also through a toxic influence, contrary to the statements of Sabrazes and Rivièrè, who say that the streptothrix does not possess toxic powers. The infection does not remain local, as has been said by Gasperini, but spreads over the whole body of the animal. The infection is usually propagated through the lymphatics.

GAZZETTA DEGLI OSPEDALI E DELLE CLINICHE.

August 30, 1903.

1. Hemeralopia from Epidemic Parotiditis,
By ARTURO CAMPANI.
2. A Case of Descending Thoracic Aorta, By G. CESARE.
3. Simultaneous Ligature of the Femoral Artery and Vein,
By CARLO ORECCHIA.
4. A Second Case of Ludwig's Angina,
By VINCENZO GALETTA.
5. Acute Gastroenteritis in Children and Its Treatment by Means of Water, By ADOLFO PRANDI.
6. Croupous Pneumonia in an Advanced Pregnancy
By SALVATORE LOPPIORZ.
7. Gouty Intestinal Lithiasis, By E. LEONARDI.

1. **Hemeralopia in Mumps.**—Campani says that hemeralopia is not given as a complication of mumps, and yet it occurred in a case which he reports. It lasted five days, then disappeared slowly, with the disappearance of the tumor. Nothing was found on examining the eye most carefully. He considers it due to the toxins of the disease.

3. **Ligature of the Femoral Artery and Vein.**—Orecchia reports a case of severe incised wound of the thigh in which the hæmorrhage was so great that it was impossible to find the bleeding point in time to save the patient's life, and therefore ligature of both femoral artery and vein was resorted to, the bleeding having been a combination of dark venous blood and arterial spurting. After the operation the extremity became gangrenous up to a line of demarcation about four fingers' breadth below Poupart's ligament. The limb was amputated at the hip, but the patient grew weaker and died after this operation. Braun records that of fifteen cases of ligature of the femoral artery and vein there were eight with gangrene and seven without, and Nibergall shows that of twenty-four cases only fourteen were followed by mortification in the limb. This shows that gangrene is not an absolutely necessary occurrence after this operation. A case very similar to the one now related was reported by Tillmanns, and in this instance there was perfect recovery. It is probable that the difference is due to the fact that in some persons the tissues are more delicate than in others. Experiments on animals did not bring the author nearer to a solution of the question.

4. **The Water Cure in Intestinal Affections of Children.**—Prandi extols the use of plain boiled water in acute gastrointestinal derangements in infants. He stops all food whatever and gives plenty of plain boiled water for from twelve to forty-eight hours, to wash out the tract and to allay its irritability by rest and by cleanliness, rather than by astringents. The latter are indicated in the presence of marked diarrhoea, but in the ordinary cases of indigestion and in the disturbances of the bowels due to improper feeding, it is best to use this "water cure."

5. **Pneumonia in Advanced Pregnancy.**—Lopriore dwells on the dangers to mother and child in a case in which pneumonia occurs at an advanced stage of pregnancy; viz., in the ninth month. He relates a case of this kind in which labor was prematurely induced in a very simple manner. Pneumonia being found present, it was deemed advisable to terminate the pregnancy before the crisis of the disease. A large mustard poultice was placed over the whole chest and through the sympathy between the mammary glands and the uterus contractions in the latter were induced, and the woman was delivered normally. The poultice at the same time served as a counterirritant to the pneumonic process. He recommends this method as a simple and rapid means of inducing labor, and in case it does not work within four days, the labor should be hastened by introducing a catheter into the uterus or rupturing the membranes, but the sinapism may be left in place even after these measures are taken. The author calculates that it is necessary to induce labor within four days or at most five days after a diagnosis of pneumonia occurring in an advanced stage of pregnancy.

6. **Intestinal Lithiasis.**—Leonardi relates the case of a woman, aged twenty-nine years, who had been in good health until three years before, when uncontrollable diarrhoea occurred that rendered her cachectic. The stools were accompanied by an intense pain arising from the cæcum and spreading over the abdomen. The patient had a family history of gout on both sides. Diagnoses of tuberculosis, of cancer of the rectum, etc., had been made. There was probably a mass of intestinal concretion that irritated the colon and caused the diarrhoea. An antilithæmic diet of vegetables, etc., and the use of strychnine, arsenic, baths, etc., as tonics, restored the patient to health and the diarrhœal movements diminished from forty to fifty to two normal stools daily.

ROUSSKY VRATCH

October 11, 1903.

1. Shiga's Bacillus as a Cause of Dysentery,
By G. N. KAZARINOFF.
2. The Subcutaneous Position of the Radial Artery in the
Lower Portion of the Forearm,
By K. I. SOUSSLOFF.
3. On Intrapertitoneal Ruptures of the Bladder (*To be con-
cluded*),
By J. B. ZELDOVITCH.
4. The Treatment of Sciatica with Strychnine,
By F. O. ZARTSINE.
5. Essentucki as a Health Resort,
By M. S. ZERNOFF.

1. **Shiga's Bacillus.**—Kazarinoff finds that if virulent cultures of Shiga's bacillus are fed to rabbits, no effect whatever is produced, beyond a transient feebleness. The same culture, if injected into the blood in dose of 0.02 grammes will kill the rabbit. If the gastric juice is neutralized, especially in a fasting animal, and the culture is then given by the stomach, the animals die within a short time, but do not show any lesions in the intestines. The injection of opium infusion into the peritoneal cavity, and the administration of the culture through a stomach sound gave more positive results. In one rabbit so treated there were bloody stools and distinct changes in the intestines after death, resembling those of the first stage of dysentery. The study of these experiments and of the literature of the subject leads the author to the conclusion that Shiga's bacillus, which was discovered first by Chantemesse and Widal in 1888, is the true pathogenic factor in the dysentery of temperate climates, just as the *Amaba coli* is in the tropics.

4. **Strychnine in Sciatica.**—Zartsine has tried the use of strychnine injections in nine cases of sciatica with very satisfactory results. This treatment was suggested at the Second Medical Congress of Bulgaria, in Sofia, by Tchavoff. Zartseff cannot vouch for the permanence of his results, as most of the patients disappeared from observation at the conclusion of treatment, but what he has learned about strychnine in sciatica leads him to recommend it strongly. In four cases of the nine reported the symptoms of the disease completely disappeared; in three there was merely a very marked improvement, in spite of the large number of injections used. The author concludes that injections of strychnine seem to be the most efficient method of treatment thus far devised for sciatica. The nitrate of strychnine was used in these cases, the usual dose being one sixtieth of a grain, and the site of injection, the buttock.

AMERICAN MEDICINE.

December 12, 1903.

1. The Relative Importance to the Community of Pneumonia and Tuberculosis (*Illustrated*),
By ARNOLD C. KLEBS.
2. Address on Hernia,
By JOHN B. DEEVER.
3. On Amputations,
By THOMAS H. MANLEY.
4. Amyotrophic Lateral Sclerosis (*Illustrated*),
By ALEXANDER MCPHEDRAN.
5. Infections of the Knee Joint,
By I. R. TRIMBLE.
6. Care of the Uterine Cervix,
By H. WELLINGTON YATES.
7. The Brain of Children and Some Suggestions from the
Standpoint of the Physician as to How It Should be
Regarded by the Teacher,
By HENRY L. SWAIN.

1. **Pneumonia and Tuberculosis.**—Klebs makes a statistical study of the relative importance of pneumonia and tuberculosis to the community. Many charts add to the value and clearness of the contribution. The author sums up his results thus: (1) The relative economic importance of pneumonia and tuberculosis cannot be estimated by a mere comparison of total mortality figures for each disease. (2) The apparently high mortality figure and its increase of late,

for pneumonia, are produced by the enormous death rate and its increase attributed to this disease, in early childhood. (3) The high mortality from pneumonia, and to a certain extent its increase, are due to a classification of different ill-defined pathologic conditions under one name, while that from tuberculosis represents that of a well defined morbid entity. (4) For this reason, and on account of the relative shortness of disabling sickness and frequent recovery in pneumonia, the great length of disabling sickness and infrequent recovery in tuberculosis, the relative importance of the two diseases is so vastly different, that a comparison on economic grounds reveals the overpowering danger from tuberculosis. (5) The steady decrease of the tuberculosis death rate can be explained on the grounds of increasing improvement of hygienic conditions in late years and as the result of specific prophylactic measures. (6) The increase of the pneumonia death rate occurring in a time of improving hygienic and sanitary conditions and of a general application of antiseptic principles, shows its independence of these features. (7) The enormous mortality from tuberculosis, its demonstrated preventability, and the possibility of its arrest only in its earliest stages, demand the institution of educational measures in regard to personal and public hygiene. (8) Since for pneumonia, as pointed out by E. F. Wells, "the fundamental information on which prophylactic rules may be formulated is not yet at hand" the subject needs further investigation, from a bacteriological and epidemiological standpoint, before "exaggerated and irrational notions in regard to its dangers and its avoidance" are communicated to the public.

2. Hernia.—Deaver does not believe that any patient should wear a truss unless operation is positively contraindicated. The exceptions to the radical cure are: (1) Children under four years of age. A proper truss will perhaps cure two fifths of such cases. (2) Adults the subjects of serious organic lesions of the heart, lungs, or kidneys, or very fat patients in whom the intestine and omentum are adherent to the sac. (3) Adults, over sixty years, in whom the hernia can be held in place by a truss. Taxis should never be performed for more than five minutes, and an anæsthetic should not be employed unless the patient can be operated upon at once should taxis fail. The Bassini operation, the author believes, is the best operation for inguinal hernia. For femoral hernia the Bassini operation may be used, though Deaver prefers the pursestring method. Umbilical hernia, if congenital, is best treated by the use of a truss up to the thirteenth year. If the hernia still persists operation may then be resorted to.

3. Amputations.—Manley reviews the history of amputations and concludes that there has been a gradual progress towards conservatism. At the present time, even in military practice, primary amputations are not resorted to, generally, unless a main artery is severed.

5. Infections of the Knee Joint.—Trimble considers the general subject of knee joint infections and briefly reports four cases. He writes to

emphasize these two points: (1) A most careful diagnosis should be made in all instances of inflammation in or about the knee joint. (2) When a purulent inflammation is present in the joint it should be opened early in the disease, and means taken to prevent the formation of pockets of pus.

MEDICAL RECORD.

December 12, 1903.

1. The Function of Maternal Milk in Developing the Stomach; a Factor Hitherto Overlooked in Artificial Infant Feeding. By HENRY DWIGHT CHAPIN.
2. Cyclical Albuminuria. By ARTHUR M. ELLIOTT.
3. Muscle Tonus and Tendon Phenomena. By JOSEPH FRAENKEL, and JOSEPH COLLINS.
4. A Rare Case of Patent Diverticulum Ilei. By AUGUST ADRIAN STRASSER.
5. The Treatment of Cancer by Caustic Paste. By CHARLES WARRENNE ALLEN.

1. The Function of Maternal Milk in Developing the Stomach.—Chapin asserts that a majority of the statements that have been made with regard to milk by various authorities are not founded upon fact. Such statements, based as they were on the consideration of the chemical composition of milk alone, have led many pædriatists astray. From a study of how the young of some of the lower animals are fed the author announces a number of deductions. Mother's milk and the secretions of the infant's gastrointestinal tract automatically adapt themselves to each other. While the mother's milk is of constant chemical composition, whether the infant's digestive apparatus be weak or strong, the infant, by changes in his digestive secretions, is able so to modify the mother's milk as to determine how and where digestion shall take place. It is this capacity of mother's milk to adapt itself to the varying activities of the child's stomach that makes it so uniformly suited to the child's different digestive capacities. The skilful infant feeder must, therefore, learn to discover functional derangements in the child's digestive processes and to modify the milk accordingly. This cannot be done by simply working by the percentage method.

3. Muscle Tonus and Tendon Phenomena.—Fraenkel and Collins append these conclusions to their paper: "(1) Disease of the posterior columns causes hypotonia and decrease of reflexes. When these conditions are present, the tendon phenomena are absent or diminished unless additional disease of the descending tracts counterbalance this influence. (Return of knee jerks in cases of tabes after hemiplegic attacks.) (2) Disease of the pyramidal tracts causes hypertonia and increase of reflexes. The tendon jerks under such conditions are increased unless additional disease of the ascending tracts, anterior horns or peripheral neurones neutralizes this influence. (3) Histological hypertonia and hypotonia modify the above stated relations to a slight degree when the disease has not advanced to its full clinical representation. (4) We find in our lists a large group of more or less normotonic registrations with approximately normal behavior of the tendon phenomena. (5) We find a smaller group with more

or less marked hypotonic registrations. In this group the tendon phenomena are mostly diminished. This diminution is evidenced by the fact that the tendon-jerks are not easily elicited, that the muscular contraction is sluggish and vermicular, and is easily exhausted. It is well to state here that the above mentioned behavior of the tendon phenomena is not influenced by a well executed reinforcement."

4. **Diverticulum Ilei.**—Strasser reports one case of this rare condition and gives a table of 63 other cases collected from the literature. The author summarizes his beliefs as follows: (1) The condition is one of great rarity; (2) males are more frequently afflicted; (3) careful attention should be paid to any granulations at the navel, before and after the dropping of the cord; (4) it will be wise at all times to remember the possibility of an included bowel and tie the cord at least two inches from the umbilical ring; (5) a radical operation is safest, to do away with the possibility of intestinal obstruction through diverticula later in life.

5. **The Treatment of Cancer by Caustic Paste.**—Allen takes exception to a statement by A. Campbell White, to the effect that almost every one, except charlatans, has given up the treatment of cancer by pastes. As Allen and some of his friends have had excellent results with pastes he considers the statement too sweeping. In order to keep from being misunderstood he quotes the following precise statements from a previous article he has written on the subject: "(1) Cutaneous cancer is traceable in almost all cases to preceding local irritation. (2) There may be other causes, but infection is probably a source of the disease. (3) Benign epitheliomatous proliferation may be infectious. (4) Cancer is curable, but if the disease is allowed to progress the patient may not be. (5) Only the most radical treatment is to be tolerated. (6) Caustic paste, with subsequent caustic dressing, is radical, and is often preferable to the knife. (7) The earlier cancer is treated the less likelihood is there of relapses or metastases. (8) The x ray bids fair to be as effective as caustics." The author recommends pastes for the treatment of only superficial cancers.

MEDICAL NEWS.

December 12, 1903.

1. The Home in Its Relation to the Tuberculosis Problem, By WILLIAM OSLER.
2. Syphilis and Divorce, By PRINCE A. MORROW.
3. Some Practical Suggestions on Physical Education in the Public Schools, By RICHARD COLE NEWTON.
4. Report of Cases with Exhibition of Specimens Diagnosed by the Cystoscope, By JOHN R. WATHEN.
5. Hysteria, By WILLIAM B. YOUNG.
6. Enlarged Bronchial Glands, By J. R. CLEMENS.
7. A Humble Sterilizer, By DOUGLAS H. STEWART.

1. **Tuberculosis and the Home.**—Osler's paper is the second lecture, under the auspices of the Phipps Institute, of Philadelphia, that has been delivered on the subject of tuberculosis. The great fight against tuberculosis must be made in the home, and it is for this reason that Osler's

paper is of such importance. The author asserts that the germ of tuberculosis is ubiquitous; few persons reach maturity without infection; none reach old age without a focus somewhere. If the ravages of the disease are not greater than they are, it is due to the great resistance of the human body to the disease and not to any lack of exposure to its germs. Ninety-eight per cent. of all cases of tuberculosis must be treated in the home. It is, therefore, of transcendent importance that the profession and the public should have clear ideas as to the home treatment of the disease. The points of chief importance are: (1) Early diagnosis. Too often is precious time wasted and the golden opportunity allowed to slip by the failure of the physician properly to examine the chest. (2) Early cases should be managed in a more masterful way. It is the author's firm opinion that more patients are injured than benefited by drugs. It is not that the drugs themselves do so much harm, but that weeks are lost in trying to check a cough or control a fever in a patient who is allowed to continue his work and be up and about. The rational treatment of tuberculosis, and the only one that will give good results, resolves itself into seeing that the patient is kept under control from the first stages of the disease and that he receives plenty of good food and fresh air and absolute rest during the febrile periods.

2. **Syphilis and Divorce.**—Morrow reviews the law, of various nations and of some of our own States, in so far as it relates to syphilis and its power to affect (1) contracts to marry, (2) annulments of the union, and (3) divorce. Only very general conclusions can be given, in an abstract, as the rulings of different courts differ. In general, it may be said: (1) That the existence of venereal disease in either party to a contract to marry is sufficient ground for the other party to refuse to fulfil the engagement, and therefore, constitutes a valid defence in a breach of promise suit. (2) That the existence of venereal disease in either party at the time of marriage may render the marriage voidable. (3) That when a woman has been infected with syphilis by her husband the law may grant her a divorce on the statutory ground of cruelty and infidelity. In the State of New York, where "infidelity" is recognized as the sole ground for divorce, the charge of cruelty could not be pleaded. As the law now stands there is no civil or penal responsibility imposed upon the husband for the transmission of syphilis in the marriage relation.

4. **Diagnosis by Means of the Cystoscope.**—Wathen reports four cases in which he was able to make a diagnosis by means of a cystoscopic examination. These the author reports in order to emphasize the value of the method. He concludes his article as follows: "These few selected cases illustrate the necessity for more thorough and accurate methods of diagnosis in this important field of work. Of my 126 cases examined with the cystoscope on account of obscure diagnosis, I catheterized the ureters in 23 cases, failed to do so for various complications in 12 others, and for the remaining 91 I did not need to catheterize to make a diagnosis."

5. **Hysteria.**—Young summarizes his views on hysteria as follows: "(1) We must look to the unconscious impressions of infancy and childhood for the ætiology of hysteria. (2) The disease primarily is purely a psychosis. (3) The pathology, I believe, will be located in the adrenal system. (4) The treatment for hysteria *per se* should be psychical. Suitable resorts should be erected for properly treating and caring for the afflicted among the poor. (5) By such treatment, I believe, hysteria would soon be on the decrease instead of on the increase, as it has been for years."

6. **Enlarged Bronchial Glands.**—Clemens asserts that enlarged bronchial glands, as met with in children, are of importance for three reasons: (1) Their great frequency; (2) the manner in which they are overlooked and ignored; (3) the possibility of their becoming tuberculous. A suggestive combination of symptoms which points to the condition is: (a) enlargement of the cutaneous veins over the upper part of the chest; (b) some deficiency of resonance over or on either side of the manubrium, and (c) a venous hum in the same position when the head is retracted; especially if these occur in a thin, delicate-looking child, suffering from a cough for which no cause can be detected in the throat or lungs and from slight intermittent evening pyrexia without assignable cause.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

December 12, 1903.

1. The Trend of Gynæcologic Work To-day. Chairman's Address Before the Section on Obstetrics and Diseases of Women (*To be continued*),
By A. PALMER DUDLEY.
2. Cooperative Work in Registration Methods and Vital Statistics,
By W. A. KING.
3. The Limitations in the Use of Aconite and Veratrum Viride,
By WARREN B. HILL.
4. Non-Tubercular Hæmorrhages of the Air Passages,
By LAFAYETTE PAGE.
5. General Surgical Anæsthesia (*Concluded*),
By ERNEST J. MELLISH.
6. Two Cases of Paratyphoid Infection: One Case by an Aberrant Organism,
By G. BERTNARD SMITH.

3. **Aconite and Veratrum Viride.**—Hill thinks it is about time for some one to concern himself with the limitations of the use of drugs. So much has been written as to what drugs will do, that if one were to judge by published reports, the conclusion would seem inevitable that with only a few drugs we could obtain almost any result required, which is manifestly not true. The drugs to which the author devotes his attention are aconite and veratrum viride. He asserts that the physiological action of the two drugs is so similar that what he has to say of aconite can be applied with equal force to veratrum. The physiological action of aconite may be stated thus: Primary action—stimulation of the peripheral nerve endings; stimulation of the vasomotor mechanism; powerful stimulation of the respiratory centre. Secondary action—paralysis of the over stimulated peripheral nerve endings; pronounced depression of the heart; lowering of the blood pressure; reduction of temperature. The indications for the

use of these drugs then are: To relieve pain, reduce temperature, promote diaphoresis, slow the heart, and reduce blood pressure. To relieve pain aconite is dangerous and inferior to other remedies. As a diaphoretic it does not compare with Dover's powder or pilocarpine. It is inferior to digitalis for slowing the heart. Blood letting is to be preferred to it for lowering the arterial tension, and finally the reduction of fever by means of drugs is not a thing to be very greatly desired.

4. **Hæmorrhages of the Air Passages.**—Page calls attention to the fact that mistakes are often made in diagnosing hæmorrhages from the air passages. Very frequently it is asserted that the blood has come from the lungs and a diagnosis of tuberculosis is made when in reality the hæmorrhage was due to some local lesion in the nose or throat. In all cases of bleeding therefore one should endeavor to exclude lesions of the upper air passages.

5. **General Surgical Anæsthesia.**—Mellish concludes in this issue his article on general anæsthesia. The author concludes his paper with fifty-nine formal deductions. It is out of the question, therefore, to attempt to give his complete view of the subject. What seem to us to be the chief points laid down are: (1) No one form of anæsthetic should be used as a routine. (2) The general management of the patient and of the anæsthetic are matters of importance. (3) A skilful anæsthetizer should always be employed. (4) Of the general anæsthetics, ether is the safest and most satisfactory, in most cases.

BOSTON MEDICAL AND SURGICAL JOURNAL.

December 10, 1903.

1. General Peritonitis Complicating Scarlet Fever,
By JOHN H. MCCOLLOM, and JOHN BAPST BLAKE.
2. Was He Insane? A Study in Mental Diagnosis,
By C. A. DREW.
3. A New Method of Closing the Abdomen After Laparotomy,
By FRANK A. HIGGINS.
4. Albuminuric Retinitis,
By ALLEN GREENWOOD.
5. As to Pope Leo's Case—Pleuropneumonia,
By SAMUEL DELANO.

1. **Peritonitis Complicating Scarlet Fever.**—McCorm and Blake report two cases of general peritonitis due to streptococcus infection and occurring as complications to scarlet fever. Such a complication is extremely rare, and but scant reference is made to it in the standard medical textbooks. The two cases reported by the authors were the only ones that have come under their observation, although they have had a clinical experience of over 8,000 cases of scarlet fever. The first case reported is the most remarkable of the two, since the patient recovered, notwithstanding the fact that aspiration showed pus in the peritoneal cavity as well as in one of the pleural cavities. The second case ended fatally. The authors make these suggestions for the treatment of the condition: If the signs of peritoneal infection are slight, palliative measures alone should be resorted to. When the symptoms are those of a well defined peritonitis drainage is imperatively called for. Serious involvement of the

kidneys is the most definite contraindication to operation which, when called for, should, if possible, be performed under cocaine. The prognosis is always extremely grave and a successful termination of the condition is not ordinarily to be anticipated.

3. A New Method of Closing the Abdomen.—

Higgins enumerates his objections to both the mass suture and the layer suture methods of closing abdominal wounds after laparotomy. Having done this he describes his own method which is as follows: Mass sutures of silkworm gut are first introduced and are left untied. The peritonæum is then closed by a running suture of fine unchromicized catgut, the fascia by twenty-day chromicized gut and the skin with a subcuticular suture of fine silkworm gut or horsehair. The mass sutures are then tied over a metal guard, which is separated from the abdominal wound by gauze. This metal guard is the author's special feature. This guard is a plain piece of thin metal, the object of which is to prevent the mass sutures from cutting through the skin.

4. Albuminuric Retinitis.—

Greenwood asserts that the prognosis, with regard to the length of life, in chronic nephritis without retinal complications is very uncertain, while with retinal complications fairly accurate predictions may be made. The author states that a patient suffering from chronic nephritis who develops albuminuric retinitis will rarely, if ever, live more than three years after the development of the eye symptoms. The author classifies all cases of albuminuric retinitis into two classes and briefly reports a number of cases to illustrate his system.

BRITISH MEDICAL JOURNAL.

November 28, 1903.

1. The Treatment of Some Acute Visceral Inflammations. (Harveian Lectures, No. II), By D. B. LEES.
2. Syphilitic Joint Disease, By E. P. PATON.
3. The Spread of Ankylostomiasis, By T. H. HENDLEY.
4. A Case of Abdominal Hysterectomy for Retroperitoneal Cervical Fibroid (weighing 13½ pounds), By A. H. N. LEWERS.
5. "Retroperitoneal Manipulation": A Method of Separating Deep-seated Plastic, Pericæcal, or Other Peritoneal Adhesions, By G. GORE-GILLON.
6. Subperitoneal Lipomata, By J. CAMPBELL.
7. The Treatment of Vesical Papilloma by Injections, By H. T. HERRING.
8. Case of External Urethrotomy Treated by Continuous Retention of a Rubber Catheter Held in Position by a "Perineal Stop," By C. H. WHITEFORD.
9. The Pathology of Hallux Rigidus, By J. M. COTTERILL.
10. Further Notes on Leishman's Bodies, By R. ROSS.
11. The Ætiology of One of the Heterogeneous Fevers of India, By C. DONOVAN.

1. **Pneumonia.**—Lees begins by stating that specific medication for pneumonia is still lacking. Pneumonia kills by cardiac failure—a failure not of the left heart, but of the right; not by syncope, but by asphyxia. The most important part, then, of the treatment of pneumonia is to keep a constant watch on the condition of the right heart,

and to prevent its overdistention by the timely removal of a small quantity of blood. Evidence of dilatation of the right ventricle is easily detected by percussion in the fourth right space—the normal finger's breadth of dullness becomes doubled, or more than doubled. The symptoms are rapid respiration and cyanosis. In an early stage from three to six leeches applied over the præcordia will rapidly remove the distress and diminish the dilatation of the right auricle. The relief lasts for forty-eight hours, when leeches may have to be again applied. Where the distention is marked, venesection must be resorted to, six to eight ounces of blood being removed. The diet must be such as can be easily taken, easily digested, and readily assimilated—milk fulfills all these indications. But when the right heart is dilated, the nutriment should be in small quantity and highly concentrated. For the thirst which is so common, water may be given freely, and is of value in washing out the pneumococcal toxine. To obtain refreshing sleep for the patient is most important. Insomnia is usually due to dyspnoea, and the relief afforded by leeching brings the power to sleep with it. When due to pain morphine must be given, if other and milder means fail. Strychnine is the most useful drug to assist the heart in maintaining the circulation, and should be given subcutaneously. Atropine is very serviceable in children. Oxygen by inhalation assists the aeration of blood in the lungs, and thus improves the quality of the blood. It should be begun as soon as cyanosis is evident, and continued for five minutes every hour. Digitalis is most likely to be of service after relief of the right heart. Alcohol has little title to be considered a cardiac tonic; large doses do more harm than good. In pneumonia the application of ice to the wall of the chest is as helpful as it is in pericarditis, but it must be used much more freely—at least two, and often three, icebags are required. The feet and legs must be kept continuously warm with hot water bottles. The areas of consolidated lung should be outlined with pencil, and the icebags applied accordingly. Experiments go to show that a moderate reduction of temperature exercises a marked inhibitory influence on the rate of growth of the pneumococcus. It seems that the consolidation of the lung in pneumonia is largely due to the local effects of an albumose produced by the growth of the pneumococcus, and that the pyrexia is due to the same cause.

2. **Syphilitic Arthritis.**—Paton classifies joint disease occurring as the result of acquired syphilis as follows: Secondary stage. (1) Arthralgia; (2) synovitis, acute or subacute; (3) hydrarthrosis. Tertiary stage. (1) Synovitis, subacute or chronic, so chronic as often to be examples of hydrarthrosis; (2) gummatous, the gummata being in the synovial or subsynovial tissue; (3) cases in which the bone or cartilage is primarily diseased; (4) cases in which the disease has spread to the joint from the parts around; (5) ankylosis, which is rather a termination of one of the other varieties than a variety by itself.

Secondary arthralgia may be very intense, and is often worse at night. Synovitis is the common

trouble during the secondary stage. Hydrarthrosis nearly always attacks the knee, and only occurs late in the secondary stage. In tertiary synovitis the knee joint is most usually affected, and there is but little pain or interference with motion. Gummatous disease may begin with an effusion of fluid, and subsequently the gummatous mass may be felt. The mass may completely fill the joint, and closely resemble tuberculosis. When the primary disease is in the bones or cartilages the damage, as a rule, is much more serious. Thickening of the bone ends may be a very marked feature and sometimes lipping of their edges may be detected. Serious trouble may arise when a gumma opens on to a skin surface near a joint, and the joint capsule becomes perforated with resulting infection of the joint—a septic arthritis with its attendant dangers. Ankylosis is likely to be the termination of any case of gummatous disease of the synovia or bones. In hereditary syphilis also the joints are not exempt from attack, the varieties being grouped as follows: (1) Simple synovial effusion; (2) joint disease associated with syphilitic epiphysitis; (3) primary gummatous affection of the synovial membrane; (4) osteitis associated with effusion only; (5) osteitis associated with gumma of the synovia (pseudo-white swelling); (6) deforming arthritis. Simple synovitis, rheumatism, and gonorrhoeal arthritis are the affections for which secondary syphilitic joint affections are likely to be mistaken. Tertiary lesions may be confused with osteoarthritis or tubercle. The knee suffers from syphilitic arthritis oftener than all the other joints together. As regards treatment attention is called to the fact that absolute rest is in many cases not absolutely necessary, but may do actual harm. Counterirritation is often useful.

6. Subperitoneal Lipomata.—Campbell reports two illustrative cases of subperitoneal lipomata—one malignant and one benign. These tumors are more frequent in women than in men in the proportion of twenty-five to sixteen. They occur most frequently on the right side, the neighborhood of the kidney and the iliac fossa being their favorite sites. Clinically there are two important varieties: (1) The malignant tumors which include the retroperitoneal growths, especially those originating on the posterior aspect of the abdomen. They are difficult or impossible to remove and are microscopically sarcomata in whole or in part. Patients afflicted with them are at first in good health, but ultimately waste markedly, the tumor rapidly increasing in size. The benign variety includes lipomata of the broad ligament, omentum, and epiploic appendices. These can be safely removed, affect the general health but little, and their prognosis is good. The broad ligament is a rare situation.

7. Vesical Papilloma.—Herring reports three cases of vesical papilloma which demonstrate: (1) That recurrence of papilloma after removal by suprapubic cystotomy, which unfortunately often occurs, may be effectually held in check by injections of silver nitrate. (2) That if injections are made, when it has been found impossible

to remove the growth entirely by operation, the recurrence of the symptoms is retarded longer than could be expected without the symptoms. (3) That much of a tumor may be removed by the urethra without serious hæmorrhage, and a result gained equal in some cases to a suprapubic operation. (4) That there is reason to hope that papillomatous growths may be entirely removed by long-continued applications of silver nitrate.

Injections should, therefore, be made after operations for removal of the growth, whether the operator is satisfied that he has done so efficiently or not. The urethral route should be tried when removal of the papilloma is contemplated, before a more serious operation is undertaken.

8. External Urethrotomy.—Whiteford reports a case of external urethrotomy for stricture which was successfully treated by the continuous retention of a rubber catheter held in place by a perineal stop. The advantages of this method are: (1) The patient is free from pain, and can turn freely in bed without risk of the catheter slipping out. (2) The catheter can be retained continuously for several weeks, being removed every few days for cleansing; in fact, until the perineal wound is nearly closed. (3) Retention of the catheter being continuous instead of intermittent, as is the case with a metal instrument, the wound heals around the catheter, and consequently the lumen of the strictured urethra is larger and requires less subsequent dilatation. (4) Rigors are avoided, since the urine does not come in contact with the raw surface. (5) The catheter, stop, and clip are easily sterilized by boiling. (6) Tapes, plaster, rings, etc., are dispensed with.

9. Hallux Rigidus.—Cotterill agrees with Tubby, that the lesion in all cases of hallux rigidus is an osteoarthritic condition of the first metatarsophalangeal joint. While stiffness in this joint sometimes arises from trauma, rheumatism, gout, badly fitting shoes, etc., in the large majority of cases it is primarily due to flat foot. In order for the condition of hallux rigidus to be produced, the flat-footed person must be in the habit of wearing shoes which prevent the great toe rising to its normal angle of relation to its metatarsal bone, when the base of that bone falls into its abnormal position in flat foot. In many cases the stiffness is reflex in character and is due to muscular spasm, the result of joint irritation; in more advanced cases the ligamentous and other structures of the joint are altered, so as to cause permanent stiffness. Early cases can be cured by attention to the flat foot and by passive movements and massage. In later cases excision of the head of the metatarsal bone is the best treatment.

10 and 11. Leishman's Bodies.—Ross submits further observations on the new blood-parasite described by Leishman, Donovan, & al., as occurring in certain low fevers in India. The bodies appear under two distinct conditions—(a) free, and (b) imbedded, to the number of one up to twelve, in a matrix. In the majority of the free forms the contour is elliptic, and the two chroma-

tin masses are generally situated at the extremities of the minor diameter. The imbedded forms are less numerous and their contour is less distinct. Ross sees little in these bodies to recall the involution forms of trypanosomes as is suggested by Leishman. According to Laveran the bodies are parasites belonging to the Texas cattle-fever group, *Piroplasma*. They are often contained in the red corpuscles and are piriform. Ross does not agree with this view; he thinks the bodies belong to a new genus of *Sporozoa*, and that the individual bodies are spores produced in the matrices.

Donovan reports that he has found these parasites in sixteen cases; all from punctures from the spleen and liver during life. The symptoms of the febrile disease produced are enlarged spleen and liver, irregular pyrexia, paroxysmal oedema of the feet, congestion of the lungs, occasional subcutaneous hæmorrhages, and cancrum oris. Medication has proved ineffectual.

LANCET.

November 28, 1903.

1. The Administration of Chloroform to Man and the Higher Animals, By A. D. WALLER.
2. The Present State of the Irish Poor-law Medical Service, By R. F. TOBIN.
3. Some Question in Seaside Climatology, By A. F. STREET.
4. Patent Medicines, By R. HUTCHISON.
5. On Albuminuria as an Accompaniment of Diabetes Mellitus, By F. W. PAVY.
6. Fracture of the Fifth Cervical Vertebra; Recovery, By W. E. F. TINLEY, and A. R. JONES.
7. A Confirmatory Test for the Presence of Meconic Acid, By F. N. WINDSOR.
8. A Case of Teratoma of the Neck, By F. B. CARTER.
9. Note on a Dicephalous Monster, By A. M. ELLIOT.
10. Remarkable Transposition of the Viscera, By J. C. THOMSON.

1. **Chloroform Anæsthesia.**—Waller describes his method of administering chloroform to animals, by means of which the anæsthesia is rapidly produced and safely maintained. The animal is placed under a bell jar, through which chloroform and air of known percentage are pumped. The pump is one devised by Dubois, of Lyons, for anæsthetization of the human subject. The inlet is by an open bottle into which each stroke automatically delivers 0.3 c. c. of liquid chloroform, equivalent to 90 c. c. of chloroform vapor, the whole of which is drawn into the pump at one stroke, and delivered at the next stroke. Thus varying amounts (according to rapidity of stroke) of a 2 per cent. mixture of chloroform and air are delivered. The percentage can be changed by varying the amount of chloroform. The author has not lost an animal since this method was introduced, the amount of chloroform used is small, anæsthesia is rapid, and animals can be safely kept in complete anæsthesia for as long as twelve hours. The author contends that these facts apply directly to the human subject. Dosage in the administration of chloroform is necessary, and successful anæsthesia requires the regular respiration of air in which the chloroform vapor is maintained between the limits of one and two per

cent. The high anæsthetic death rate is due, in part, to the haphazard way in which the anæsthetic is usually given.

5. **Albumin in Diabetes.**—Pavy states that the ferrocyanic test is the best for urinary albumin. A small quantity of acetic acid is added to the urine and then the solution of ferrocyanide of potassium is dropped in. Ferrocyanic acid is liberated, and if albumin is present a precipitate known, and at the same time one the reaction known, and at the same time one of the reaction of which is least likely to lead to fallacious conclusion. Nucleoproteids are thrown down by the acetic acid alone; serum albumin only after the ferrocyanide has been added. One advantage of the test is the avoidance of any reagent of a corrosive nature. The test can be put up in pellet form, and in doubtful cases the lamina method (as with nitric acid) can be employed. In albuminuria as a concomitant of diabetes, the amount of albumin is ordinarily not large. As the sugar decreases upon proper treatment, the amount of albumin apparently increases; this is only due, however, to the decrease in volume of the urine passed and its consequent concentration. Albuminuria is of notably frequent occurrence in diabetes; it may occur simply as a concurrent malady or as a consecutive phenomenon attributable to the diabetes. As a rule, no clinical distinction can be drawn between the two forms. The albuminuria may be due to Bright's disease, arising before, with, or after the diabetes. In such cases the glycosuria may be found to decrease and even to disappear. Phthisis also appears to exert a restraining influence over diabetes. It is at present, however, very uncommon for phthisis to supervene on diabetes, the most common cause of death being coma, the disease running its course in a pure form. Should phthisis supervene it usually is the predominant affection. The albuminuria consecutive to diabetes differs from that of typical Bright's disease, in that there is nothing symptomatically, apart from the urine, to indicate its existence. In the classical type of diabetic case albumin is not usually discoverable until it shows itself in connection with the final stage of the disease. It is especially in the badly controlled chronic cases that it is met with previous to the setting in of the comatose stage. Casts very frequently, but not always, accompany the albumin—the granular and hyaline forms being those met with. The amount of albumin is usually small. The author considers that the albuminuria is attributable to the toxic influence of the sugar which is traversing the system. With this as the source of the condition, there should be no albuminuria when the urine is maintained in a sugar-free state. According to the author's experience this conclusion has held good. Although not usual, it may happen that albumin soon shows itself after diabetes has set in. In the chronic class of case the diabetic condition may run on for a long time before albumin appears, if it does so at all. Much depends upon the extent to which the sugar is kept down. The appearance of albumin may be at first only periodical and not continuous.

Proceedings of Societies.

PHILADELPHIA OBSTETRICAL SOCIETY.

Meeting of December 3, 1903.

The President, Dr. JOHN M. FISHER, in the Chair.

The Treatment of Puerperal Septicæmia.—A paper on this subject was read, by invitation, by Dr. WILLIAM R. PRYOR, of New York. He said he had much faith in careful bacteriological examinations of all the secretions from the uterus, and particularly the material that might collect in the pouch of Douglas. It was from the bacteriological examination of the secretions in these areas that he based his diagnoses. He said that seventy-five per cent. of puerperal uteri were found to contain germs of some variety, and these were usually pyogenic. The streptococcus seemed to find a natural home in the uterine cavity. While there, however, he said, they simply played the part of saprophytes, but if the drainage of the uterine cavity was interfered with in any way, as by clouching, etc., the natural immunizing property of the uterine secretion was lost, and the germs became actively pathogenic. In puerperal septicæmia the great exciting cause was undoubtedly trauma. Not all cases were due to unclean fingers; therefore, while sterile gloves were valuable, they were not the sole agent of protection. Dr. Pryor then briefly described the symptoms of puerperal septicæmia, and then considered the important question of treatment. He outlined his own method, which was essentially as follows: The interior of the uterus was first thoroughly cleansed or irrigated with a saline solution or some antiseptic solution. If no relief was obtained in six hours, we might conclude that septicæmia had begun. The method of extension of the infective process was brought out in this connection. This took place through the uterine wall and lymphatics, and not by the continuous mucous membrane. We must count the spread of the infection by minutes, not hours, and if cocci were present in the interior of the uterus, surely then the parametric tissues were also involved. In thirty-seven cases of puerperal septicæmia he had examined the lymph contained in Douglas's cul-de-sac, and found the streptococcus in all of them. The essayist then said that the treatment should be local and general; the general treatment should consist of stimulation and elimination, and elimination should be accomplished largely through the kidneys. One of the best agents for this was the intravenous infusion of salt solution. His method of local treatment consisted in making a large posterior vaginal opening, removing all débris, and irrigating Douglas's pouch, then enveloping the uterus in large pieces of five per cent. iodoform gauze. They were inserted in one side and made to encircle the uterus and extend as high as the pelvic brim. By this method the infection became localized, the iodine was absorbed, and by its systemic influence combated the toxæmia and bacteriæmia. Before this was done he, however, first, of course, thoroughly cleansed the uterus and packed it with ten per

cent. iodoform gauze. That the iodine was actually absorbed seemed to be undoubted, for in nearly all cases the iodine reaction was obtained in the urine in two hours. As regarded iodine poisoning or iodism, he had never had any bad cases of this condition result from this method of treatment. The packing in the interior of the uterus was removed in three days, the cavity irrigated, and iodoform gauze again introduced. The gauze in Douglas's cul-de-sac was removed at the expiration of a week, the parts were thoroughly cleansed, and iodoform gauze was again introduced. After the removal of the first packing from Douglas's pouch, cocci were usually absent. In one patient only had they been present at the third dressing. He considered the thorough cleansing of Douglas's cul-de-sac more important than that of the uterine cavity. Of the thirty-seven cases recorded by Dr. Pryor treated by this method, four had proved fatal from some intercurrent complication, as bacteriological examinations of the fluid within the uterus and Douglas's cul-de-sac failed to reveal any germs. As regarded the destructive influence of iodine on the blood, Dr. Pryor maintained that it was practically *nil*; indeed, he made the assertion that the hæmoglobin was really increased.

Dr. E. P. DAVIS commended the treatment outlined by Dr. Pryor, and said that sometimes he opened suprapubically and enveloped the uterus with iodoform gauze, and often obtained good results. He emphatically condemned the employment of hysterectomy, and did not think it was justifiable after the bacteria had entered the circulation. He believed that much could be done by the thorough depletion of the bowels by the administration of calomel and salines, though, of course, this should not be excessive.

Dr. E. E. MONTGOMERY spoke favorably of Dr. Pryor's method of treating this condition. He thought that intravenous antiseptics would be an ideal method of treatment, provided it was combined with local measures, but as yet, unfortunately, we had no ideal intravascular antiseptic or one that could be depended upon.

Dr. JOHN B. DEEVER thought that the method employed by Dr. Pryor undoubtedly was of value. Ten per cent. of iodoform gauze had stood him in good stead in many instances of suppurative appendicitis. He did not believe, however, in the employment of massive doses of strychnine, and this method of stimulation he condemned.

Dr. RICHARD C. NORRIS confined his remarks principally to the bacteriology of the subject. He said that this department of medicine had not done much for the gynecologist and obstetrician from a therapeutic standpoint. He asked, therefore, if the infection had passed into the hæmic circulation, what advantage would the iodine method of treatment present? If the infection was already in the blood, then why not place the iodine in the blood? He made the further assertion that he practically disregarded bacteriology in practice.

Dr. JOHN C. CLARK believed the infection travelled by the continuous mucous membrane and lymphatics, and that it had not been definitely demonstrated by histological section that the

germs did actually penetrate the uterine wall. Until this was a demonstrated fact, we could not be sure that we were limiting an infecting organ by surrounding it with gauze.

Dr. CHARLES P. NOBLE believed that the opening of the posterior vaginal fornix and the introduction of gauze afforded excellent drainage, and he asked Dr. Pryor whether the results were really due to the drainage thus obtained or to the iodine saturated gauze.

Dr. J. M. BALDY was almost certain that the infection travelled through the Fallopian tube and not through the uterine wall. He further said that for this method to avail much, the entire organ should be isolated and not just one portion. He did not believe that the iodine itself had any value. He favored strongly thorough elimination by the kidneys and bowels. This was obtained by the administration of calomel and salines and by the employment of intravenous infusion. At the same time, too, incision into Douglas's cul-de-sac should be made and drainage established.

In conclusion, Dr. PRYOR quoted statistics to show the part that bacteriology had played, both in the diagnosis and in the therapeutics of obstetrics and gynecology.

Letter to the Editor.

STRYCHNINE FOR PRIAPISM AND CHORDEE.

CHUCKATUCK, VA., November 25, 1903.

To the Editor,

Sir: I submit the following, hoping that it may be of interest to the profession: Strychnine sulphate, administered in a one thirtieth ($\frac{1}{30}$) of a grain dose at bedtime, will prevent the priapism usually occurring after circumcision, enabling the patient to sleep soundly through the night. If it is taken at nine or ten o'clock at night, the effects will wear off at about four or five the following morning. I have adopted this method in several cases, and have never yet known it to fail.

Although I have never tried it in chordee, I see no reason why it should not act as well.

FRANK J. MORRISON.

Book Notices.

Grundriss der Augenheilkunde. Von Dr. CHARLES H. MAY, Chef der Augenklinik, Columbia Universität, New York. Autorisierte deutsche Ausgabe für deutsche Studierende und Aerzte bearbeitet, von Dr. E. H. OPPENHEIMER, Augenarzt in Berlin. Mit 13 Farbendrucktafeln (36 Figuren) und 191 Textabbildungen. Berlin: August Hirschwald, 1903. Pp. viii-344.

Calum, non animam, mutant qui trans mare currunt. Of books, as of men, it may be said that a change of scene does not imply a change of heart, and it is not surprising to find in the German edition of May's textbook the same qualities of brevity, instructiveness, and practicality which have made the American original a most popular students' guide. The volume is, however, not merely a direct translation, for Dr. Oppenheimer has taken advantage

of his right of revision to remodel some of the chapters for the needs of the practising physician, and the requirements of the "Staats-Examen." He has also added a formulary of the prescriptions most frequently used in ophthalmic therapeutics, and amplified the section on general operative management. The illustrations are, with a few exceptions, those of the original publication.

There is every reason to expect that the book will be as favorably received abroad as it has been in this country, and that this latest "American invasion" will be a successful one.

A Thesaurus of Medical Words and Phrases. By WILFRED M. HARTON, M. D., Assistant to Professor of Materia Medica and Therapeutics, and Lecturer on Pharmacy, Georgetown University, Washington, D. C.; and WALTER A. WELLS, M. D., Demonstrator of Laryngology and Rhinology, Georgetown University, Washington, D. C. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Pp. 534. Flexible leather \$2.50 net; with thumb index, \$3.00 net.

This work is the fulfilment of an idea so excellent, and yet so simple, that we can only wonder that, with all our host of medical lexicographers, no one has heretofore attempted it. It is not a dictionary, but the converse of a dictionary. The dictionary aids us to appreciate accurately what others have said or written, by explaining to us the precise signification of the words they use. The aim of the thesaurus, on the other hand, is to aid us, when in possession of an idea, to find the word that will most accurately and completely convey our meaning to others. For general literature several such treatises, notably Roget's, exist; but medicine has hitherto lacked this invaluable auxiliary. It is scarcely to be expected that in a first edition numerous errors should fail to creep in. For instance, *pinnae nares*, for "sides or wings of nose," should surely be *pinnae naris* or *narium*; "nervain," in the table of drugs, must mean "vervain;" jambul is *Syzigium jambolanum*, not jambolana.

But while we think the idea of the work excellent, and give all credit to the author for his labors toward its materialization, we cannot give unqualified praise to the result. While a dictionary, whose aim is to help us to understand what others have written, must perforce give space to words which ought never to have been coined, merely because they have been used, a thesaurus, which aims at teaching us to express ourselves well, ought surely to avoid giving countenance to depraved words and modes of expression. As such we may class audiometry, perivaginitis, periarticular, pedalgia, etc., the correct equivalents of which are given. Why should bandagist, "one who adjusts appliances to hernia," find a place? Or evectics, "the science of good health?" Premature labor is variously described as *partus immaturus* and *partus prematura*. Why *partus*, a masculine noun, correctly given in *partus immaturus*, *partus agrippinus*, and *partus maturus*, should become feminine in *partus prematura*, is not shown, or why *præmatura* should become *prematura*. A similar error occurs in "*concha superius, inferius*." *Concha*, κόγχη, is feminine; κόγχος is masculine and feminine; there is no neuter

form. We wish also to protest with all our force against the pernicious practice of omitting the accents in foreign words which are not thoroughly Anglicized, but are frankly used as foreign words; e. g., in the preface we read "*Dictionnaire encyclopedique des sciences medicales*," without any accents at all. This is not French or any other language. The pronunciation is markedly altered by the omission of the accents. There is the less excuse for this as in a corresponding German title, *Reals Encyclopädie der gesammten Heilkunde*, the umlaut finds its proper place. Again, we have such monstrosities as nez epaté for nez épaté; pot fele, for pôt félé; vesiculaire, metallique, etc. Yet râle is spelled correctly with a circumflex over the a. Why introduce othiatrus, otiater, and otiatrician? Surely aural surgeon, otologist, and aurist are sufficient. Besides, we distinctly deprecate the unnecessary introduction of such exotics into English. We could pick out similar blemishes galore, but let these suffice to emphasize our opinion that, while we consider the idea excellent and its execution meritorious, the work will require ruthless excision in a subsequent edition before it can be considered satisfactory. When that has been effected the advantage that will accrue to medical literature from the author's labors will be very great indeed.

Organic Nervous Diseases. By M. ALLEN STARR, M. D., PH. D., LL. D., Professor of Disease of the Mind and Nervous System, College of Physicians and Surgeons, the Medical Department of Columbia University in the City of New York, etc. Illustrated with 275 Engravings in the text and 26 Plates in Colors and Monochrome. New York and Philadelphia: Lea Brothers & Co., 1903.

Starr has written a work which will undoubtedly take a prominent place among English textbooks on neurology. He aims to give the practitioner and the student an exhaustive treatise on the organic nervous diseases in the light of the most recent knowledge we have of the subject. A careful perusal of the work, however, shows that he has not quite reached this point of excellence. In the very first chapter, which is devoted to a consideration of the structure of the nervous system, one looks in vain for even a mention of the work of Apathy, Bethe, and Dojiel on the neurone, or of the opposition to the Waldeyer neurone theory as led by Nissl. Nor is this the only instance of important omission which can be noted. Zoster is to-day recognized as being due to a lesion in the spinal ganglia, and yet Starr fails to describe it. Even Head's important work on spinal localization finds no space in this book, and this is the more to be wondered at when neurologists the world over are occupied not only in confirming, but also in completing, what Head has so ably begun. Certainly one would imagine it worth a practitioner's or even the student's while to know something about such a topic. The part devoted to spinal localization is lamentably brief. We feel we have a right to expect more from one who was a pioneer in the field. We should like to hear from Starr, as from an authority, what his years of experience teach him

regarding not only his own older scheme, but the later one of Kocher and the more recent ones of Wichman and Sciffer. Instead of this we are presented with a colored plate which we guess is a modification of Starr's former one, but about which he tells us nothing.

In the chapter on hæmatomyelia, in discussing the pathology of the condition, he makes no mention of those cases in which there are multiple hæmorrhages which are very small and in some cases invisible to the naked eye. Nor does he discuss the mechanics of concussion and the manner in which it causes injury to the cord. He does not distinguish between the primary and secondary hæmatomyelia of Bailey. And thus we might continue to point out omissions and incompleteness throughout the work; but we have called attention to these few only in order not to follow the trend of reviewers in general who, because a book is written by an author of standing in the profession, find nothing but words of praise for it.

We do not mean to say or to imply that Starr has written a poor book. On the contrary, it is a very excellent work in many respects. The style is clear and very attractive, the symptomatology of the various diseases is well portrayed, and what is especially instructive and gratifying is that considerable space is devoted to treatment. Neurological treatises are inclined to deal very sparingly and trivially with this chapter of disease, so that the idea of treatment in organic nervous disease has come to be regarded as a joke by many general practitioners. Starr is to be commended for the attention he pays to this phase of the subject.

The book is profusely illustrated and the typographical work is excellent. On the whole, it is a work worth reading, but not one such as we all had hopes of obtaining from one who has had such a wide experience and such rich opportunities.

Transactions of the American Ophthalmological Society. Thirty-ninth Annual Meeting, Washington, D. C., 1903. Vol. X, Part I. Hartford: Published by the Society, 1903. Pp. 196.

The triennial meeting in conjunction with the other sections of the Congress of American Physicians and Surgeons was productive of a number of valuable contributions.

The volume opens with a memorial of Dr. William F. Norris, one of the most distinguished of American ophthalmologists and president of the Society for five years. His active life is reflected in the following list of some of his official positions: Professor of ophthalmology in the University of Pennsylvania, attending surgeon at Wills Eye Hospital, vice-president of the Philadelphia Pathological Society, ophthalmologist to the University Hospital, and president of its board of trustees, and a member of the Academy of Natural Sciences and of the American Philosophical Society.

Lack of space prevents a detailed consideration of the many clinical and pathological reports. Among those which are of special practical or scientific value, the following may be cited: de Schweinitz's study of the possible ætiological factors in to-

bacco amblyopia revealed by an analysis of the urine; Reik's suggestions as to intracapsular irrigation in cataract operations, and Buller's paper on skin grafting in ophthalmic surgery. Interesting cases were reported of leucosarcoma of the chorioid (Pooley); orbital osteoma of ethmoidal origin successfully removed (Percy Fridenberg); acute panophthalmitis following dissection of the capsule (Taylor); tuberculosis of the eye (Spalding), and conjunctiva (Jackson); vicarious menstruation into the retina, followed by detachment and retinitis striata (Percy Fridenberg); double traumatic optic neuritis, followed by absolute blindness and recovery (Wilmer); and optic atrophy following intestinal hæmorrhage (Sweet).

Transactions of the American Otological Society.

Thirty-sixth Annual Meeting, Washington, D. C., May 12 and 13, 1903. Vol. VIII. Part II. Published by the Society: Mercury Publishing Company, Printers, New Bedford, Mass., 1903. Pp. 341.

This volume of *comptes rendus* opens with a memorial notice of Dr. Oren Day Pomeroy, author of many essays and papers bearing on the subject to which he was devoted, author of a textbook on *Diseases of the Ear* which was adopted as a guide by many medical schools, and at one time president of the American Otological Society.

The scientific contributions are numerous and interesting. It is characteristic of the recent advance in aural surgery that five observers report cases in which recovery took place after operations for cerebral and cerebellar abscess (Richardson, Gruening), sinus thrombosis with pyæmia (Pooley), mastoid osteomyelitis with extension to the occipital bone and disseminate abscesses in the bones and in the deep muscles of the neck (Knapp), and double mastoiditis, followed by sinus thrombosis and metastatic abscess in a primipara at full term (Bacon).

An unusually important and valuable contribution is Randall's study of the surgical relations of the facial canal in five hundred crania. Whiting describes the use of his encephaloscope in the differential diagnosis of acute and chronic brain abscess. These and a number of other papers well repay a study of the *Transactions*.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Compend of Gynecology. By WILLIAM H. WELLS, M. D., Chief of the Gynecological Staff of the Mount Sinai Hospital, Philadelphia; Demonstrator of Clinical Obstetrics in the Jefferson Medical College, Philadelphia, etc. Third Edition, Revised and Enlarged, With 145 Illustrations. Philadelphia: P. Blakiston's Son & Co. 1903. Pp. xv-293. [Price \$8.00 net].

A Manual of Bacteriology. By HERBERT U. WILLIAMS, M. D., Professor of Pathology and Bacteriology, Medical Department, University of Buffalo. With 99 Illustrations. Third Edition, Revised and Enlarged. Philadelphia: P. Blakiston's Son & Co. 1903. Pp. xv-336. [Price \$1.75 net].

The Treatment of Certain Malignant Growths by Excision of the External Carotids. By ROBERT H. M. DAWBARN, M. D. The Samuel D. Gross Prize Essay. Philadelphia: F. A. Davis Company, Publishers. 1903. Pp. xiii-192. [Price \$2.00 net].

A Text-Book of Practical Gynecology for Practitioners and Students. By D. TOD GILLIAM, M. D., Professor of Gynecology in Starling Medical College, Columbus, Ohio; Gynecologist to St. Anthony and St. Francis Hospitals, Columbus, Ohio, etc. With 357 Illustrations and Colored Frontispiece. Philadelphia: F. A. Davis Company, Pub-

lishers. 1903. Pp. xvi-634. [Price, cloth \$4.00; half Russia, \$5.00].

A Treatise on Orthopædic Surgery. By ROYAL WHITMAN, M. D., Instructor in Orthopædic Surgery in the College of Physicians and Surgeons of Columbia University, New York; Associate Surgeon to the Hospital for Ruptured and Crippled, etc. Second Edition, Revised and Enlarged, with 507 Illustrations. Philadelphia and New York: Lea Brothers & Co. 1903. Pp. xii-848. [Price, cloth, \$5.50 net].

La Nature Syphilitique et la Curabilité du Tabes et de la Paralyse Générale. Par L. E. LEREDDE. Paris: C. Naud, Editeur, Rue Racine, 3.

Annual Report of the Board of Regents of the Smithsonian Institution, showing the Operations, Expenditures, and Condition of the Institution for the Year Ending June 30, 1902. Washington: Government Printing Office. 1903. Pp. vii-687.

New Inventions.

A DRIP CUP AND RETAINER FOR IRRIGATOR TIPS.*

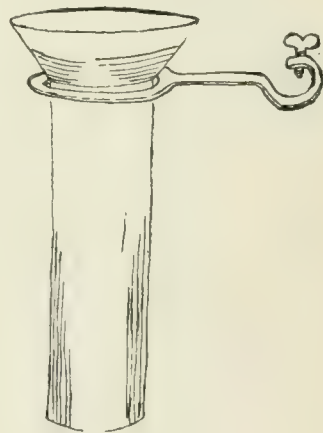
By FREDERIC GRIFFITH, M. D.,

NEW YORK,

FELLOW OF THE NEW YORK ACADEMY OF MEDICINE.

A common breach in the proper aseptic technique of surgical operations where irrigation is employed, is the disposal of the irrigator tip.

The method of sticking a used tip into the top of the irrigator bag during the course of operative work, using this as a holder, cannot be enough condemned, for besides being wrong in principle the practice is a direct bid for germ contamination. A needless number of frequent and lengthy sterilizations of the bag becomes necessary, with a resulting quick destruction of the rubber. The accompanying diagram illustrates a drip cup and retaining device, which consists of a glass or metal flanged cup made two inches in diameter at the mouth, and tapering to a cylinder one inch and a quarter in diameter and four inches long. The copy which I have made is of brass. The cup is held in a convenient position beneath the irrigator bag by means



Dr. Griffith's Drip Cup.

of a metal ring and thumb screw bracket to secure it to the upright of the irrigator stand. When the irrigator bag is hung from the wall the drip cup may be held in place by means of a large sized screw eye fastened to convenient

woodwork. The receptacle is sterilized by boiling. Syphonage from the irrigator bag is prevented by means of the ordinary pinch-cock attached to the tubing or by elevating the tip and loop of tubing before placing the former in the retainer.

49 EAST SIXTY-FOURTH STREET.

* Presented at the New York Academy of Medicine, Surgical Section, December 4, 1903.

Miscellany.

The Wills Hospital Ophthalmic Society, of Philadelphia.—At the November meeting Dr. S. Lewis Ziegler showed a most interesting case of double coloboma of the iris and capsular indentations with lenticular streaks and chorioidal involvement in their usual situations, in association with microphthalmia which was more marked on the left side, occurring in a five year old girl of good parentage. In addition there was a pronounced degree of convergence of the two eyes, but without any apparent pareses or palsies.

Dr. Charles A. Oliver exhibited a cured case in a normally functioning eyeball of infectious keratoiritis with deposits on the anterior capsule of the lens. The patient, a foundry worker, thirty-one years of age, had struck his left eye with a splinter of soft wood, producing an open wound of the cornea through which two pieces of wood had passed into the anterior chamber and rested against the iris, the iris tissue being grossly inflamed and infiltrated. After removal of the splinters of wood and all the foreign material possible, with careful treatment of the involved parts, the signs of reaction rapidly disappeared, leaving a permanently healthy organ. Bacteriological examination of the pieces of wood showed a preponderance of pyogenic bacteria.

An example of the comparatively rare condition of suppurative dacryodenitis, in which the diagnosis had been fully established during the very earliest stages of the disease, was shown by Dr. Ziegler. He also exhibited an instructive illustration of optic nerve atrophy following ocular contusion, the only visible early signs being the presence of a few massings of subretinal hæmorrhage situated in the posterior pole.

Dr. Oliver showed the final results of a case of chronic double symblepharon and ankyloblepharon from a hot iron burn, in which he had successfully separated both the lower and the upper lids from the eyeball, giving all their ordinary and proper degrees of motility. The bands, which embraced more than the inner third of both lids and which were fastened directly to the corneal limbus and bound the inner fourth of the lid borders together, had been dissected into loose tongue-like flaps, and the adjacent conjunctiva brought together throughout its entire original length beneath by a series of fine interrupted silk sutures, the loosened tongues of scar tissue being fixed to the adjoining good mucous surfaces. The operation was done in two sittings.

Dr. M. Uribe Troncoso, of the city of Mexico, being invited to give his views upon the origin of glaucoma, stated quite in detail the findings in his experimental studies upon lower animals, the results of his clinical researches, and his conclusions in regard to the various ætiological factors at play, as well as the prognosis, and the various plans of treatment in such cases. The want of fibrin, the great amount of albumin, the œdema of the vitreal elements with forward pushing of the vitreous body, the secondary closure of the angle of the anterior chamber, etc., all were carefully considered.

In the discussion, Dr. Oliver, Dr. Ziegler, and

Dr. Radcliffe took up the questions of the varieties and stages of the disease complex, the main ætiological factors at work, the gross and the fine pathological changes, and the relative effects of medicinal and operative treatment.

Dr. Bedell showed a case of dendritic ulcer of the cornea following capsulotomy which had been cured by large doses of quinine used both locally and internally. No bacteriological studies had been undertaken.

The Gauze-bearing Tape and the Gravity Pad in Pelvic and Abdominal Surgery.—At a recent meeting of the Obstetrical Society of Philadelphia, the president, Dr. John M. Fisher, presented these devices. The one, it is said, obviates the annoyance of a miscount in the number of gauze pads used for isolating and exposing the field of operation and positively eliminates the danger of the loss of any pads within the abdominal cavity, at the same time minimizing the possibility of losing unsecured pads for rapid sponging, while the other supplements and enhances the advantages of the Trendelenburg posture.

The gauze-bearing tape consists of a piece of white tape about half an inch in width and of variable length (three or four feet) armed at one end with a long blunt-pointed needle or bodkin.

The gravity pad is nothing more than a large gauze pad, concealed within its folds and fastened to the centre of which is a lead plate two by three inches and weighing half a pound. Instead of a single piece of lead, smaller plates of the metal may be held in quilted squares of the pad or at indifferent points.

The practical utility of the tape was first demonstrated by Dr. Fisher at St. Joseph's Hospital, Philadelphia, on July 27, 1903, in an operation for pelvic disease requiring a number of gauze pads to hold the intestines at a proper level and expose the field of operation. One end of a long piece of gauze was introduced into the abdomen while the nurse quickly and without any loss of time to the operator perforated the other extremity with the needle and tape, securing its edge to the distal end of the latter with a turnover tie. After the entire pad had been packed into the cavity with the free portion of the tape trailing from the abdominal opening, other pads were strung on the tape in a like manner, but without the necessity of securing them with a knot—the first and successive pads acting as points of fixation for those that followed. No account was taken of the pads thus introduced, nor was this necessary, for the reason that, after a sufficient number were in use to answer the purpose indicated, the removal of the same upon the completion of the operation simply depended upon the withdrawal of the tape to which all were attached. On the following day the same device was used with entire satisfaction in an operation for suppurative appendicitis; while the combined advantages of the gravity pad and the tape were first employed in an unusually trying case of suppurative disease of the uterine annexa. In operating upon the latter patient, it was shown that weight properly distributed was of more importance than bulk in holding the intestines at a

proper level. Without the gravity pad three times the quantity of gauze would not have given the same satisfactory result in isolating and exposing the pelvic contents.

A Day's Practice with Maimonides.—*Janus* for November 15, 1902, in a review of a paper by Dr. J. Snowman on Jewish Influence on Medical Science in the Middle Ages, quotes the following from a letter of Maimonides (vixit 1135-1204), the Jewish physician to the Sultan Saladin: "My duties to the Sultan are very heavy. I am obliged to visit him every day early in the morning; and when he, any of his children, or any of the inmates of his harem are indisposed, I dare not quit the city (Cairo), but must stay during the greater part of the day in the palace. It also frequently happens that one or two of the officers fall sick and I must attend to their healing. Hence, as a rule, I repair to Cairo very early in the day, and even if nothing unusual happens I do not return into my residence until the afternoon. Then I am almost dying with hunger: I find the antechamber filled with people, judges, and bailiffs, a mixed multitude, who await the time of my return. I dismount from my animal, wash my hands, go forth to my patients and entreat them to bear with me until I partake of some slight refreshment, the only meal I take in the twenty-four hours. Then I go forth to attend to my patients with prescriptions and directions for their numerous ailments. Patients go in and out till nightfall, and sometimes even, I solemnly assure you, until two or more hours in the night. I prescribe for them and converse with them while lying down from sheer fatigue, and when night falls I am so exhausted I can scarcely speak."

The New Haven Medical Association.—At the regular meeting, held on December 16th, Dr. Stephen J. Maher read a paper on Some Investigations of a Bacterial Treatment of Tuberculosis. For several years, he has been studying the effect on human tuberculosis of a sporogenic bacillus, probably a variety of *Bacillus mycoides*, that he isolated from the milk of a tuberculous cow. He has injected this bacillus alive into the muscular and connective tissues of nearly one hundred consumptives, and he affirms that such injections are absolutely safe, and that they are often beneficial, even in the later stages of the disease, and that many apparent cures have promptly followed the injections given in the earlier stages. He related cases of tuberculous disease of the bones and of the mucous and serous surfaces, that improved or healed under local application of pure cultures of this bacillus. The paper included some bacteriological data concerning the bacillus, and its relations to other germs, as observed in culture media, and in animals.

Medicine and Music.—Dr. W——, who has become a member of the choir of a fashionable uptown ritualistic church, now refers to himself as an Epæsculapian and states that he is a specialist both in anthems and exanthems.

The Exogenesis of Cancer.—Alexander T. Brand (*Quarterly Medical Journal*, May, 1903) considers the elucidation of this disease the burning

question of the day. He believes that cancer arises from without the organism by infection, and that infection occurs only under certain favorable conditions which render the organism vulnerable. In other words, that a precedent condition must be established produced by irritation with or without, injury, degeneration of tissues, chronic disease, or congenital susceptibility.

As to actual knowledge, we know that cancer is a specific disease, is propagated by infection and metastasis, seldom occurs in animals, favors certain localities and tissues, is preceded by irritation, is a local disease at the outset, and is marked by cachexia when well established. Illustrations are given showing the predilection of cancer for certain geographical locations.

In the matter of heredity the author denies that there is any evidence that transmission of the disease has ever occurred.

As to prophylaxis personal cleanliness is thought to be the key note. The Turkish bath is recommended as an assistant in attaining this end. Food should never be taken with unwashed hands, and vegetables which are to be eaten raw should be scrubbed.

Infected houses should be posted and the bodies, dejecta, and dressings of the cancerous should be burned. Electricity or light may prove curative in the future, and an efficient antiseptic may yet be discovered. Should a bacterium of cancer be found an antitoxine will doubtless also be found to destroy it.

Finally, the author believes that the exogenesis of cancer is clinically and logically proved, and that the discovery of a microorganism, fulfilling the law of Koch, is only a matter of time. He submits the following syllogisms: (a) All diseases infectious to the individual are infectious to others. Cancer is infectious to the individual. Therefore it is infectious to others. (b) All diseases infectious to the individual have an external origin. Cancer is infectious to the individual. Therefore cancer has an external origin.

Intestinal Perforation during Typhoid.—Briggs (*American Journal of the Medical Sciences*, May, 1903) considers that the number of cases of typhoid fever in the United States is about 500,000 per year, and that the death rate is about 50,000. About one third of all deaths are due to perforation, that is to say, nearly 17,000 typhoid fever subjects die of perforation every year. Briggs believes that between 5,000 and 8,000 cases could annually be saved by operation. When perforation is suspected, tub baths should be discontinued, because the condition of the patient during and after them may obscure the symptoms. Briggs does not believe that the preperforative stage is a definitely recognizable condition. The treatment is always operative. The time at which operation should be performed, however, is a matter of much dispute. Curiously enough, statistics indicate that the largest number of recoveries occur in those subjects operated on during the second twelve hours after the perforation. General anæsthesia is desirable. The technics should be as simple as possible; perforation should be sought for at once, starting at the cæcum and

traveling along the ileum. After the perforation is closed, if the condition of the patient permits, search should be made for other ulcers in a dangerous condition, and, finally, the abdomen should be thoroughly irrigated with large quantities of water. Exploratory operations in cases of threatened perforation appear to be justified. Secondary operations may sometimes be done. There is reason to believe that the rate of recovery may in time approach 30 per cent. or even 50 per cent.

Remarkable History of a Bullet.—According to *Journal des praticiens* for November 7, 1903, Tuffier has reported a case to the Paris *Société de chirurgie* of a man from whom, two months after the latter had been shot full in the breast with a revolver, he removed a bullet fastened to the wall of the left auricle.

Official News.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending December 12, 1903:

- BROWNELL, C. D. W., Surgeon. Ordered to the *Amphitrite*, with additional duty at the naval station, Guantanamo, Cuba.
- BUTLER, C. S., Assistant Surgeon. Detached from the *Albatross* and ordered home to await orders.
- JENNESS, B. F., Assistant Surgeon. Detached from the *Indiana* and ordered to the *Iowa*.
- MCDONNELL, W. N., Acting Assistant Surgeon. Detached from the Naval Academy and ordered to the *Glacier*.
- PECK, C. S., Assistant Surgeon. Detached from the *Iris* and ordered home to await orders.
- PERCY, H. T., Surgeon. Detached from the *Indiana* and ordered to the *Iowa*.
- PICKRELL, G., Surgeon. Ordered to additional duty in charge of the Naval Hospital, San Juan, P. R.
- THOMPSON, J. C., Passed Assistant Surgeon. Detached from the Navy Yard, Puget Sound, Wash., and ordered to the *Albatross*.
- WHEELER, W. M., Surgeon. Ordered to the Navy Yard, Puget Sound, Wash., and also on board the *Nipsic*.

Public Health and Marine Hospital Service:

Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the Fourteen Days ending December 10, 1903:

- AMESSE, J. W., Assistant Surgeon. To proceed to Seattle, Wash., and assume command of the service at that port, relieving Passed Assistant Surgeon J. H. Oakley. December 3, 1903.
- AMESSE, J. W., Assistant Surgeon. To proceed to Seattle, Wash., and assume command of the service of that port. December 3, 1903. Granted leave of absence for one day. December 5, 1903.
- BERRY, T. D., Assistant Surgeon. Detailed as inspector of unserviceable property at Cleveland, Ohio. December 5, 1903. To proceed to Cairo, Ill., and assume temporary command of service at that port during absence of Surgeon G. M. Guiteras. December 10, 1903.
- BREADY, J. E., Acting Assistant Surgeon. Granted leave of absence for two days from December 15th.
- BROOKS, S. D., Surgeon. To proceed to Brunswick, Ga., and assume temporary command of station. December 8, 1903.
- BROWN, F. L., Pharmacist. Directed to rejoin his station at Pittsburgh, Pa. November 30, 1903.
- BURKHALTER, J. T., Assistant Surgeon. Granted leave of absence for one month from December 3rd.

EBERSOLE, R. E., Assistant Surgeon. Relieved from duty in Texas, and directed to rejoin his station at Gulf quarantine. November 30, 1903.

EBERSOLE, R. E., Assistant Surgeon. Relieved from duty at Gulf quarantine station, and directed to proceed to Tampa Bay Quarantine Station and assume command. December 7, 1903.

EBERT, H. G., Assistant Surgeon. Granted leave of absence for four days from November 28, 1903, under paragraph 191 of the regulations.

FRICKS, L. D., Passed Assistant Surgeon. Granted extension of leave of absence for one month from December 1st.

FOSTER, A. D., Assistant Surgeon. Relieved from duty at Charleston, S. C., and directed to proceed to Baltimore, Md., for immigration duty. November 27, 1903.

GARDNER, C. H., Passed Assistant Surgeon. Relieved from duty at the Immigration Depot, New York, N. Y., and directed to proceed to Key West, Florida, and assume command of the service at that port. December 1, 1903.

GLOVER, M. W., Assistant Surgeon. Relieved from duty at Baltimore, Md., and directed to proceed to Victoria, B. C., for immigration duty. November 27, 1903.

GOLDBERGER, JOSEPH, Assistant Surgeon. Relieved from temporary duty at Laredo, Texas, and directed to report at the Bureau, Washington, D. C. November 30, 1903.

GREGORY, G. A., Acting Assistant Surgeon. Granted leave of absence for seven days from December 5th.

GUITERAS, G. M., Surgeon. Upon completion of duties at Laredo, Texas, to rejoin station at Cairo, Ill. December 1, 1903.

KERR, J. W., Assistant Surgeon. To proceed to Washington, D. C., and report to chairman of examining board to determine his fitness for promotion to the grade of passed assistant surgeon. December 2, 1903.

LUMSDEN, L. L., Passed Assistant Surgeon. Bureau letter granting Passed Assistant Surgeon Lumsden leave of absence for ten days, amended so that said leave shall be for six days from November 15th.

McMULLEN, JOHN, Passed Assistant Surgeon. Relieved from duty at Hongkong, China, and directed to proceed to San Francisco, Cal., and report arrival by wire. December 3, 1903.

OAKLEY, J. H., Passed Assistant Surgeon. To proceed to Seattle, Wash., and assume temporary charge of service at that port, relieving Acting Assistant Surgeon C. B. Ford. November 30, 1903.

PARKER, H. B., Passed Assistant Surgeon. To proceed to New York, N. Y., and report to Surgeon G. W. Stoner, Immigration Depot, for duty. December 7, 1903.

RICHARDSON, T. F., Assistant Surgeon. Relieved from temporary duty in Texas, and directed to rejoin station at New Orleans, La. November 30, 1903.

RICHARDSON, T. F., Assistant Surgeon. Granted leave of absence for seven days from December 6, 1903, under paragraph 191 of the regulations.

RYDER, L. W., Pharmacist. Granted leave of absence for fifteen days from December 10th.

SAWTELLE, H. W., Surgeon. To inspect unserviceable property at Stapleton, N. Y. November 30, 1903.

SMITH, E. G., Assistant Surgeon. To proceed to Santa Clara, N. Y., for special temporary duty to examine aliens. December 10, 1903.

VON EZDORF, R. H., Passed Assistant Surgeon. Detailed as inspector of certain points on Mexican National and Mexican Gulf Railroads. December 2, 1903.

WALERIUS, M., Pharmacist. Relieved from temporary duty at Laredo, Texas, and directed to rejoin station at St. Louis, Mo. November 30, 1903.

WHITE, M. J., Passed Assistant Surgeon. Relieved from duty at Honolulu, T. H., and directed to proceed to Hongkong, China, for duty. December 2, 1903.

Casualties.

Acting Assistant Surgeon HUGH BURFORD died at Brunswick, Ga., December 7, 1903.

Surgeon R. D. MURRAY died at Laredo, Texas, November 22, 1903.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending December 12, 1903:

- BANTA, WILLIAM P., First Lieutenant and Assistant Surgeon. Granted thirty days' leave of absence from December 5, 1903.
- BISPHAM, WILLIAM N., First Lieutenant and Assistant Surgeon. Granted fifteen days' leave of absence from December 3, 1903.
- BOURKE, JAMES, First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Sheridan, Ill., and ordered to Chicago, Ill., for temporary duty as attending surgeon and examiner of recruits in that city.
- CHURCH, JAMES R., First Lieutenant and Assistant Surgeon. Granted fourteen days' leave of absence from December 9, 1903.
- COX, WALTER, First Lieutenant and Assistant Surgeon. Assignment to station at Fort Reno, Oklahoma, revoked.
- EKWURZEL, GEORGE M., First Lieutenant and Assistant Surgeon. Assignment to station at Fort Banks, Mass., revoked.
- FARR, CHARLES W., First Lieutenant and Assistant Surgeon. Assignment to station at Fort Mason, Cal., revoked.
- FISHER, HENRY C., Captain and Assistant Surgeon. Granted three months' leave of absence from about December 20, 1903.
- GRUBBS, ROBERT B., First Lieutenant and Assistant Surgeon. Left U. S. General Hospital, Presidio of San Francisco, Cal., en route to take station at Fort Wright, Wash.
- HANSELL, HAYWOOD S., First Lieutenant and Assistant Surgeon. Granted thirty days' leave of absence from December 3, 1903.
- HOFF, JOHN VAN R., Lieutenant-Colonel and Deputy Surgeon-General. Granted thirty days' leave of absence from December 4, 1903.
- MANLY, C. J., First Lieutenant and Assistant Surgeon. Left Fort Caswell, N. C., en route to Fort Brady, Mich., for duty.
- MASON, CHARLES F., Relieved from temporary duty as chief surgeon of the Department of Texas.
- POLHEMUS, A. S., Major and Surgeon. Leave of absence extended thirty days from December 7, 1903.
- PURVANCE, WILLIAM E., Captain and Assistant Surgeon. Granted two months' leave of absence from December 9, 1903.
- RAND, IRVING W., Captain and Assistant Surgeon. Granted thirty days' extension to present leave of absence.
- SHILLOCK, PAUL, Major and Surgeon. Granted four months' leave of absence, with permission to go beyond the sea.
- SHOCKLEY, M. A. W., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Niobrara, Neb., on expiration of present leave of absence, and ordered to Manila, P. I.
- STEER, SAMUEL L., First Lieutenant and Assistant Surgeon. Granted twenty-one days' leave of absence from December 4, 1903.
- USHER, F. M. C., First Lieutenant and Assistant Surgeon. Left Fort Yellowstone, Wyoming, en route to San Francisco, Cal., for examination for promotion.

Boards.

The following have been appointed members of a board of medical officers to meet at the U. S. General Hospital, Presidio of San Francisco, Cal., for the examination of candidates for admission to the medical corps of the army: GEORGE H. TORNEY, Lieutenant-Colonel and Deputy Surgeon-General; LOUIS BRECHEMIN, Major and Surgeon; WILLIAM STEPHENSON, Major and Surgeon; JAMES M. KENNEDY, Captain and Assistant Surgeon.

The following have been appointed members of a board of medical officers to meet in Manila, P. I., for the examination of candidates for admission to the medical corps of the army: JOHN M. BANISTER, Major and Surgeon; WILLIAM F. CARTER, Major and Surgeon; H. I. RAYMOND, Major and Surgeon; A. E. BRADLEY, Major and Surgeon; THOMAS J. KIRKPATRICK, Captain and Assistant Surgeon.

Births, Marriages, and Deaths.*Born.*

MORRISON.—In Port Richmond, California, on Monday, November 23rd, to the wife of Dr. J. McI. Morrison, a daughter.

Married.

CHURCH—BOSS.—In Washington, D. C., on Wednesday, December 9th, Dr. James Robb Church, U. S. Army, and Miss Beulah Maude Boss.

NORRIS—LOSEE.—In Brooklyn, N. Y., on Wednesday, December 9th, Dr. Charles Edward Norris and Miss Katherine May Losee.

NORTH—ISELL.—In Washington, Missouri, on Wednesday, November 2nd, Dr. Emmet P. North and Miss Maude Isbell, daughter of Dr. John Isbell.

TERHUNE—BARTLETT.—In Passaic, New Jersey, on Thursday, December 10th, Dr. Percy Hamilton Terhune and Miss Bessie Louise Bartlett.

WATSON—HART.—In Passaic, New Jersey, on Thursday, December 10th, Dr. George Wallace Watson and Miss Jean Louise Hart.

Died.

ACKER.—In Lawrenceville, Pennsylvania, on Monday, November 30th, Dr. George B. Acker, Jr., in the thirty-sixth year of his age.

ADDINGTON.—In Battle Creek, Michigan, on Thursday, December 3rd, Dr. Dewitt C. Addington, in the seventy-sixth year of his age.

BLUMBERG.—In Pittsburgh, Pennsylvania, on Tuesday, December 1st, Dr. Albert Blumberg.

BRACKSON.—In Philadelphia, Pennsylvania, on Monday, December 7th, Dr. B. F. Brackson, of Baltimore.

BRIDGES.—In Ogdensburg, N. Y., on Wednesday, December 9th, Dr. Elisha Hall Bridges, in the sixty-third year of his age.

BURFORD.—In Brunswick, Georgia, on Monday, December 7th, Dr. Hugh Burford.

CLEMENT.—In Big Creek, Georgia, on Saturday, December 5th, Dr. L. L. Clement.

CROMER.—In Flora, Indiana, on Wednesday, December 2nd, Dr. J. R. Cromer, in the sixty-sixth year of his age.

EBERSOLD.—In Leavenworth, Kansas, on Thursday, December 3rd, Dr. Henry Ebersold, in the sixty-ninth year of his age.

FLOURNOY.—In Fort Valley, Georgia, on Sunday, December 6th, Dr. J. A. Flournoy, in the seventy-sixth year of his age.

FRIEDENBERG.—In New York N. Y., on Wednesday, December 9th, Dr. Edward Friedenberg, in the forty-ninth year of his age.

HORINE.—In Americus, Georgia, on Tuesday, December 8th, Dr. George Horine.

HUME.—In Richmond, Kentucky, on Thursday, December 3rd, Dr. Eugene Field Hume, in the thirty-first year of his age.

IKELER.—In Three Rivers, Michigan, on Tuesday, December 1st, Dr. William Ikeler, in the sixty-first year of his age.

INGALLS.—In Roxbury, Massachusetts, on Tuesday, December 1st, Dr. William Ingalls, in the ninety-first year of his age.

MITCHELL.—In Newburgh, N. Y., on Sunday, December 6th, Dr. George B. I. Mitchell, in the sixty-first year of his age.

PAINE.—In Atlanta, Georgia, on Sunday, December 6th, Dr. Horace Marshfield Paine, in the seventy-seventh year of his age.

SCHOELING.—In Marrowbone, Kentucky, on Thursday, December 3rd, Dr. Joseph R. Schoeling, in the fifty-first year of his age.

TREVIS.—In Madison, Indiana, on Tuesday, December 1st, Dr. R. M. Trevis, in the sixty-ninth year of his age.

UTZ.—In Atlanta, Indiana, on Monday, December 7th, Dr. Henry C. Utz, in the thirty-eighth year of his age.

VAN DYCK.—In Dorchester, Massachusetts, on Thursday, December 3rd, Dr. James Van Dyck, in the sixty-ninth year of his age.

New York Medical Journal AND Philadelphia Medical Journal.

CONSOLIDATED.

A Weekly Review of Medicine

VOL. LXXVIII, No. 26.

SATURDAY, DECEMBER 26, 1903

WHOLE NO. 1308.

Original Communications

THE ÆTIOLOGY OF BRONCHOPNEUMONIA.*

By LEWIS A. CONNER, M. D.,

NEW YORK,

PROFESSOR OF CLINICAL MEDICINE IN THE CORNELL UNIVERSITY
MEDICAL COLLEGE. ATTENDING PHYSICIAN TO THE
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Any consideration of the ætiology of bronchopneumonia must of necessity be prefaced by some statement as to the meaning and limits of the term bronchopneumonia, since the name has been given, by different writers, very different applications and limits.

It is important to hold fast to the idea that this name is given to a type of inflammation beginning in, and at first confined to, the walls of the smaller bronchi and that the involvement of the lung tissue proper is secondary and occurs chiefly by extension of the inflammation *through* the bronchial wall to the contiguous alveolæ. The areas of consolidation, therefore, bear a constant and close relation to the bronchi.

The terms lobular pneumonia and bronchopneumonia are frequently used as synonymous and interchangeable, but it is clear that such lobular pneumonias as do not show this close relation to the bronchi (as, for example, those due to infection through the pulmonary artery) are not instances of bronchopneumonia. On the other hand, bronchopneumonias are by no means always lobular in their distribution and extent of areas of consolidation.

The name bronchopneumonia, then, does not indicate a single infectious disease, but is used to designate those inflammations of the lung parenchyma, of whatever ætiology, which have their origin in the bronchial walls and which therefore bear a constant relation to such bronchi. As Holt says, the term "describes a lesion rather than a disease."

In this paper only the more acute forms of bronchopneumonia will be considered.

CLASSIFICATION.

Bronchopneumonia may, with respect to its ætiology, be divided into two great classes—primary and secondary.

Of these, the class of secondary cases includes much the greater number, although the relative proportion of the two classes differs much at different ages. Thus among 443 cases seen in children Holt (1) found that 37 per cent. were primary, whereas among 53 cases in adults examined by Netter (2) all but 8 per cent. were secondary.

The class of secondary bronchopneumonias may be conveniently divided into three groups.

I. Those cases complicating or following the acute infectious diseases, and seen especially in children.

II. Those developing in the course of various chronic and debilitating diseases.

III. Aspiration pneumonia.

GENERAL PREDISPOSING CAUSES.

Age.—Almost all of the primary cases and most of the cases complicating the infectious diseases are to be seen in young children. Holt found that among 426 cases of bronchopneumonia in children 97 per cent. occurred during the first three years of life.

The rarity of primary cases in adults may be seen from the fact that among 550 cases of primary (non-tuberculous) pneumonia in adults occurring in the service of the writer at the Hudson Street Hospital during the past six years, not more than eight have been instances of bronchopneumonia.

In the aged, where bronchopneumonia is by no means infrequent, the primary form is occasionally seen, but by far the greatest number of cases develop in the course of the various chronic diseases common to that period of life.

Season.—The occurrence of primary bronchopneumonia, both in children and adults, with respect to season, seems to follow the same rule as does that of lobar pneumonia, which is that cases are seen chiefly in the cold, wet months of winter and spring.

* Read at a meeting of Section on Medicine of the New York Academy of Medicine, February 17, 1903

The secondary cases, of course, are to be found at those seasons when their primary diseases are prevalent.

PREVIOUS CONDITION OF HEALTH.

While the disease is seen in all classes, its proneness, in both the primary and secondary forms, to attack children whose general condition is poor and whose hygienic surroundings are bad is very marked. It is therefore to be found especially in children of the lower classes and in those subject to the various forms of malnutrition. Rickets in particular seems to be an especially potent predisposing cause.

The great frequency of the disease among children living in asylums and similar institutions has long been noted, and is in consonance with the prevalence, in such children, of the various catarrhal inflammations of the upper air passages.

SECONDARY BRONCHOPNEUMONIA.

GROUP I.—Among the acute infectious diseases complicated by bronchopneumonia *measles* stands easily first.

The frequency of this complication in measles varies greatly with the different epidemics, and especially with the surroundings and general condition of the children. In asylums and hospitals it is not uncommon to have 40 or 50 per cent. of the cases complicated by bronchopneumonia. In private practice and under favorable hygienic conditions the frequency is very much less.

Aside from measles should be mentioned especially influenza, diphtheria, whooping-cough, and scarlet fever. Under this heading, too, may be put cases of bronchitis of the larger tubes which, in children, are not infrequently complicated by bronchopneumonia. Of Holt's series of secondary cases these constitute 15 per cent.

Bronchopneumonia is also seen as a complication of typhoid fever, small pox, erysipelas, and even of varicella and German measles. Of late in France a good deal has been written concerning "intestinal bronchopneumonia." There can be no doubt that the affection is not infrequently associated with acute and subacute intestinal inflammations in children, but whether these cases should be classed as a special type may be questioned.

GROUP II.—Bronchopneumonia as a complication of chronic and debilitating diseases is seen especially in old age, although it is by no means uncommon in children, and is sometimes seen during early and middle adult life. Chronic nephritis, chronic diseases of the heart, gout, cerebral hæmorrhage, etc., and the various surgical affections, such as fractures, in which the patient is bed ridden for a long period of time, are all liable to this complication. Some

of these cases are doubtless examples of aspiration pneumonia.

GROUP III.—Aspiration Pneumonias. The mode of development of this type of bronchopneumonia is well illustrated in the case of the so-called "vagus pneumonia," produced in animals by section of the pneumogastric nerves.

After such section of the nerves the animal dies, usually within a week or ten days, of an intense, and often gangrenous, bronchopneumonia due to loss of sensation in the larynx and the consequent inhalation of food particles and other septic material.

Aspiration pneumonia is common in all conditions of stupor and unconsciousness, such as cerebral hæmorrhage, meningitis and the like, where the normal sensitiveness of the larynx and trachea is lost and where the act of swallowing is difficult and imperfect. The condition also occurs frequently after operations about the mouth, throat, and larynx and after intubation and tracheotomy, from the aspiration of blood and various other infectious particles. The bronchopneumonia which so frequently develops after submersion, during which the bronchi are filled with water, belongs to this category. Under this heading also may perhaps be classed the somewhat different group of cases due to the inhalation of irritant gases, especially of ether, illuminating gas and smoke.

BACTERIOLOGY.

In addition to the various ætiological factors already enumerated, it must be assumed that for the production of every case of bronchopneumonia there is needed also the presence in the bronchi of pathogenic microorganisms, and it is to a consideration of these causal agents that your attention is now invited.

In contrast to the definite and well-known bacteriology of lobar pneumonia that of bronchopneumonia offers a very confused and unsatisfactory picture. This is in no wise because of the lack of study and work on the subject, for many competent investigators have attacked the problem. Weichselbaum, Netter, Dürck, Horton-Smith, Richie, Pearce, Wallstein, are the names of only a few of the bacteriologists who have given the subject much careful investigation. The confusion existing lies in the fact that under the name bronchopneumonia are grouped, not a single specific disease, but a number of different infections, due to various pathogenic bacteria, which resemble each other only in that somewhat similar inflammatory lesions are produced. This is true, not only for the secondary bronchopneumonias, but also for the important class of primary cases of the disease.

Space is lacking in this paper for a detailed analysis of the bacteriological findings of the various in-

vestigators. While they have shown many minor differences, the general conclusions reached are fairly consistent and uniform.

Among the cases of *primary* bronchopneumonia the bacterium most frequently found is the *Diplococcus pneumoniae*. In considerably over half of all these cases this microorganism is found either alone or in conjunction with other germs, most commonly the streptococcus. Next, but far below it in point of frequency, comes the *Streptococcus pyogenes*, either alone or combined with other bacteria. Much less frequently than these two have been found, separately or in various combinations, the pyogenic staphylococci, *Bacillus pneumoniae* of Friedländer, the influenza bacillus, *Bacillus pyocyaneus*, *Micrococcus tetragenus* and others.

In the bacteriology of *secondary* bronchopneumonia the bacterial list includes the same names, together with a number of others, such as *Bacillus diphtheriae*, *Bacillus typhosus*, *Diplococcus intracellularis meningitidis*, etc. Their relative frequency differs somewhat, however. The pneumococcus, while still perhaps the organism most frequently found, is much less common than in the primary cases. Moreover, neither it nor the *Streptococcus pyogenes* is nearly so apt to occur alone. Mixed infections are the rule and the bacteria above enumerated appear in every possible combination. In many cases it is very difficult to assign to any particular organism the dominant rôle as pathogenic agent.

Most of the earlier investigators were united in the belief that the bronchopneumonias which developed in the course of the specific infectious diseases were caused, *not* by the organism responsible for the primary disease, but by other pathogenic germs, usually by those commonly found in health in the mouth and pharynx. Thus Netter (2) says: "Bronchopneumonia is due only exceptionally to the localization in the lung of the pathogenic microbe of a general disease. It results usually from a superadded mixed or secondary infection;" and he formulated a law to the effect that the relative frequency with which the different bacteria were found in bronchopneumonia in adults corresponded to their relative frequency in the buccopharyngeal cavity. The more recent workers, however, with added experience and improved methods, have offered facts which go to show that for certain of these diseases, at least, this is not the case. This matter has been carefully considered by Horton-Smith (3), who shows, in the case of bronchopneumonia complicating diphtheria, that whereas up to 1895 *Bacillus diphtheriae* had been found in only 18 per cent. of the 43 cases collected, and *never* in pure culture, in the two years following there appeared three publications (Belfanti (4), Wright &

Steele (5), and Pearce (7)) in which it was found altered at once the aspect of the case. Among 62 cases of diphtheritic bronchopneumonia (including two of Horton-Smith's), the Klebs-Löffler bacillus was found in 90 per cent., and in 12 cases (19 per cent) it was found alone. These results were soon duplicated by Pearce (7), at the Boston City Hospital, who, in 62 cases of diphtheritic bronchopneumonia recovered *Bacillus diphtheriae* from the lungs 52 times, and in 17 of these cases found it in pure culture. It cannot be doubted, then, that in the case of diphtheria at least the complicating bronchopneumonia is in the great majority of the cases, not a secondary or "heterologous" infection, but is directly due to the bacterium responsible for the primary disease. It seems altogether likely that, just as in the case of the diphtheritic lesions in the throat, the associated growth of other pathogenic bacteria, notably the streptococcus, may intensify or modify in some way the character of the inflammation.

In the case of the bronchopneumonia of influenza the facts are similar to those of the diphtheritic form. Before the discovery, by Pfeiffer, in 1893, of the influenza bacillus the belief was general that the complicating bronchopneumonia was a true secondary infection due to one or more of the common pathogenic germs, especially to the streptococcus and the pneumococcus. Pfeiffer (8) showed, however, that in patients dying at the height of the disease the influenza bacillus, *in pure culture*, could be recovered from the fine bronchi and from the areas of bronchopneumonia, but that if the patients lived longer the bronchioles were invaded by streptococci, pneumococci, etc., and these germs, as well as the specific bacillus, could be found there. These statements have since been fully verified. For example, Meunier (9), in 10 cases of infantile bronchopneumonia, obtained the bacillus of Pfeiffer from puncture of the lung, from the blood, and from the pharyngeal mucous during life, and from the lungs and blood *post mortem*. Four of these cases were independent of any influenza epidemic. Richie (10), in autopsies upon 49 cases of bronchitis and bronchopneumonia in children, found the influenza bacillus in 17 cases, and believes that this bacterium is not infrequently the cause of bronchitis apart from epidemic influenza. It is interesting to note in this connection, however, that among 100 cases of bronchopneumonia in children in this city examined by Wallstein (11) the influenza bacillus was not found at all. In the bronchopneumonia complicating measles, scarlet fever, and whooping cough, the organisms found have been the streptococcus, pneumococcus, staphylococci, and the bacillus of Friedländer, in this order of frequency. Each of these has at times been found in pure culture, but frequently two or more have been associated. Since

the germs responsible for these specific diseases are as yet entirely unknown, it is quite impossible to say whether the common pathogenic bacteria found in the complicating bronchopneumonias are really the exciting cause of such pneumonias or not.

Of bronchopneumonias complicating typhoid fever, Horton-Smith has collected 19 cases with bacterial findings. In these the pneumococcus, streptococcus, staphylococci, and bacillus of Friedländer were found alone or in combination, but in none of the cases was the bacillus typhosus obtained from the lungs. To these can be added 5 cases reported by Pearce (7), in none of which was *Bacillus typhosus* found, and 8 cases by Blumer (12), who found the typhoid bacillus in 2 cases, each time associated with the streptococcus.

It seems, therefore, that at least most of the typhoid bronchopneumonias are true secondary or heterologous infections and, as Horton-Smith points out, this is what might naturally be expected, since infection by the typhoid bacillus through the air passages, in contrast to such infection by the specific bacilli of diphtheria and influenza, is very unlikely.

This may perhaps explain why lobar pneumonia, in which infection by *Bacillus typhosus* might occur through the blood, is so much more frequently a complication of typhoid than is bronchopneumonia.

TUBERCULOUS BRONCHOPNEUMONIA.

Much attention has been given of late to the bacteriological findings in the bronchopneumonias occurring in the course of pulmonary tuberculosis, and it is believed by many (Babes (13), Cornet (14), Ortnier (15)), that such inflammations are directly due to action of some other bacterium, usually the pneumococcus or streptococcus, and that the tubercle bacillus is responsible only for the caseation which so often follows such inflammation—a true “mixed infection.” In 25 such tuberculous bronchopneumonias, Wallstein found the pneumococcus associated with the tubercle bacillus in 18.

BRONCHOPNEUMONIA IN CONDITIONS OTHER THAN THE INFECTIOUS DISEASES.

In 46 cases occurring in adults in various medical and surgical affections other than the specific infectious diseases, Pearce found the *Streptococcus pyogenes* in pure culture in 34 per cent., the pneumococcus alone in 24 per cent., *Staphylococcus aureus* alone in 13 per cent., and *Bacillus coli communis* alone in 10 per cent. In all cases where a local or general infection existed, the associated bronchopneumonia seemed to be due to the same microorganism, but where the condition was a chronic or non-infectious process, e.g., chronic cardiac or renal disease, cerebral hæmorrhage, etc., the pneumococcus was the bacterium usually found in the lungs. On the other hand, Blumer (12) in 25

such terminal lobular pneumonias in similar chronic diseases found the pneumococcus only a single time, the *Bacillus coli communis*, streptococcus, and staphylococci being the bacteria usually found. Concerning the significance of *Bacillus coli communis* in the affected lungs after death there seems to be a general agreement among bacteriologists that in most cases it indicates only a post mortem, or at most an agonal invasion, and is not to be regarded as a casual agent. It is by no means certain that this statement may not also apply in many cases to other bacteria.

Aspiration pneumonias, as a class, seem not to have been much studied bacteriologically. There is no reason, however, to suppose that their bacterial flora differs materially from that of the class just mentioned. The germs usually found in the mouth and pharynx are the ones likely to be associated with this form of the disease.

Concerning the association of the different bacteria with special anatomical types of bronchopneumonia it is the opinion of most of those who have thus far studied the matter (Weichselbaum, Netter, Dürck, Horton-Smith, Blumer) that no such definite relation exists, and that it is not possible from a histological study of the lesions to recognize the particular microorganism causing them.

It remains to be stated that microorganisms other than bacteria seem occasionally to stand in casual relation to bronchopneumonia. Norris and Larkin (16) report two cases of necrotic bronchopneumonia associated with, and believed to be due to, a streptothrix. A few similar cases have been reported by others.

The mere enumeration of the microorganisms found post mortem in the lungs of patients dying of bronchopneumonia by no means answers the question as to how the disease is produced.

Is the simple entrance of pathogenic bacteria into the finer bronchi sufficient to excite an inflammation of the bronchi and of the neighboring lobules, or is it that such microbes are usually to be found there, and that the real cause is to be sought in some condition which, by diminishing the resistance of these tissues, provides a soil more suitable for the rapid growth and multiplication of these organisms?

The question whether or not the bronchi in health contain bacteria has not yet been definitely settled. Baumgarten (17), Hoffman (18), Dürck (19), and others believe that the bacteria usually found in the buccopharyngeal cavity inhabit also the bronchi. The weight of evidence, however, seems to be strongly against this view, and Richie (10), who discusses this matter at length, presents many reasons for believing that, under normal conditions, bacteria do not live and thrive in the bronchi.

It seems probable that such germs as do from time to time reach the bronchi are usually promptly absorbed by the epithelial cells and destroyed. When, however, some abnormal condition exists in the bronchi, such as hyperæmia of the mucous membrane, or the checking of the normal secretion of mucus, the bacteria may find a soil sufficiently congenial to permit them to live and multiply and, in due season, to excite an inflammation of the bronchial wall and of the adjacent alveoli.

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The Seaboard Medical Association adjourned on December 18th after a three days' session in Norfolk, Va., choosing Washington, N. C., as the next place of meeting, and electing the following officers: President, Dr. M. Bolton, of Rich Square, N. C.; first vice-president, Dr. R. H. Cobb, of Franklin, Va.; second vice-president, Dr. E. T. Dickinson, of Wilson, N. C.; third vice-president, Dr. E. F. Reese, of Southampton, Va.; fourth vice-president, Dr. J. E. Smithwick, of Jamesville, N. C.; secretary, Dr. John R. Bagby, of Newport News, Va. (fifth term); treasurer, Dr. Israel Brown, of Norfolk, Va. (fifth term); orator, Dr. T. E. Baird, of Norfolk, Va.

THE POINT OF ELECTION IN TUBERCULOSIS.

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In man the point of election in tuberculosis is the apices of the lungs. In bovines it is the tip of the caudal lobe on the superior surface, just under the posterior mediastinal gland. In swine the pulmonary deposits are more or less scattered, and with avian tuberculosis the liver is the organ most often attacked.

Except in bovines, there is no constant exception to the location of these lesions and the infection of the apices of the lung, in preference to other organs, in man has afforded attractive speculation to the medical profession for years. This apparent selective power of tubercle bacilli for the apices has been one of the most puzzling problems in pathology, because in other affections of the lungs, such as pneumonia and influenza, the colonization was commonly in the dependent portions. There have been many attempts to account for this apparent anomaly, but with one exception they can be set aside as hypothetical and unsound in theory. It is unprofitable and a waste of time to detail these hypotheses, such as the different angles of the two bronchi causing infection on the right side; the unstableness of the apices in mammalian life; postural effects in certain vocations; reversal of the respiratory rhythm; atelectatic zones, etc. All these theories fall to the ground the instant we attempt to apply them in the explanation of the point of election in bovine tuberculosis, and it must be understood at the start that the reasons for the constant deposit of foreign matter and bacilli in a certain part of the lung in man, must apply in like manner to the deposits in a certain portion of the lung of the bovine.

The only theory advanced which is reasonable, is the one by Aufrecht. He has undoubtedly hit on an important truth in the method by which tubercle bacilli are planted in the lungs. That bacilli gain the great veins, however introduced, is most likely correct and that they are screened out of the circulation by the pulmonary terminal arteries, as he asserts, is also probably true. Thus far, his pathology seems to be sound, but it will not explain why bacilli or other foreign matter gaining the common circulation are screened out and deposited, apparently by preference, in the apices in man and in the caudal lobe of bovines. Aufrecht believes that the apex offers the most favorable point for the deposit of bacilli that have found their way into the pulmonary arteries or veins, because of its defective circulation. And further, he asserts that the apex suffers from more or less trauma by traction of muscles during exercise, and that violent coughing

causes a backward stagnation of air. These accidental conditions are supposed to have injured the apical tissue, fallowing the soil, so to speak, before the arrival or arrest of bacilli in the terminal arteries in the immediate field of this lesion.

Granting all this, it fails to satisfy the demands of comparative pathology. The moment we attempt to apply his theories of defective blood supply, a backward stagnation of air, traction of the muscles, etc., to the cow, they fail to convince us. None of these conditions can affect the point of election in bovines, and whatever may be the explanation of the constant deposit in man, the general condition governing it must apply in like manner to animals, and I shall attempt to show that the deposit is purely from physiomechanical causes both in man and bovines.

Necropsic examination of firemen, miners, or persons who have lived in a constant atmosphere of smoke, disclose deposits of dust in the lungs, the apices showing the most intense pigmentation. Workers in minerals or stone, where fine particles are deposited on the mucous membrane by inhalation of dust, show the greatest pigmentation in the apices. In wasting diseases, and especially malignant tumors and large thoracic aneurysms, we find the hæmatoidin deposits very marked in the apices. Hektoen, in speaking of the destruction of lung tissue caused by anthracosis, says that, "for an unknown reason, the most marked lesions seem to occur in the apical portions of the lungs." An analysis of this condition leads one to the belief that surely these deposits must be from purely mechanical causes, for coal dust and hæmatoidin could not in any way show preference or selection for a particular tissue or any organ of our body. Such foreign matter must answer the general laws governing ponderable bodies, and, unless there is a mechanical cause which influences them along unusual lines, then they would deposit uniformly in the lower portion of the lung if inhaled, or at least uniformly throughout the lung tissue if screened from the pulmonary circulation.

The initial lesion of tuberculosis in man is at a point about half an inch below the dome of the apex. The extension of the disease is not by radiation from this deposit, but gradually downward and along the course of the lymph radicles. The next step in the disease is infection of the opposite apex. In a paper presented to the American Climatological Association, in June, 1902, I said, "We notice deposits so widely distributed and disseminated that it is not easy to believe the extension of the disease has been other than by a screening out from the blood vessels." Late in the disease we find minute tubercle deposits throughout the lower

lobes, and as these tubercles are so widely disseminated and do not communicate with an air sac or bronchus, we feel morally certain that bacilli have not been planted there by a backward extension or aspiration of sputum. In a recent paper by Aufrecht he has shown that the first arrest of a bacillus is in the walls of the apical terminal arteries. This seems to me to be one of the greatest of recent discoveries in the pathology of tuberculosis and coupled with the equally important demonstrations of Nicolas and Descas, that tubercle bacilli could be found in smears from the thoracic duct of fasting dogs three hours after they had been fed with large doses of bacilli suspended in bouillon, seems to point to the probability that bacilli gain the blood vessels in some manner and circulate freely as foreign bodies until arrested. If this is true, then, the problem to solve is how and why they are commonly deposited in the apices in man and in the tip of the caudal lobe in the lungs of bovines.

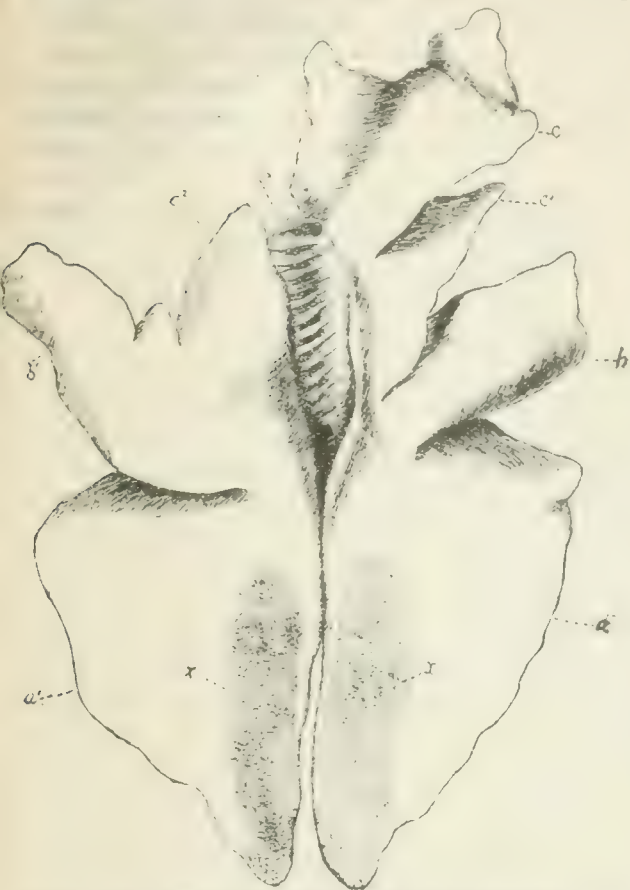
In bovines, as well as in man, the pulmonary deposits of foreign matter are anatomically the same as for tubercle bacilli. The lungs of old cows or old bulls show the greatest pigmentation in the superior portion of the tip of the caudal lobe. This exact locality is also the common site of the initial lesion in the lung tissue of bovines. It is not affirmed that the lungs are first affected, for there is too much evidence that the bronchial glands in man and the posterior mediastinal gland in bovines show the first arrest of bacilli, and the deposits in the lung tissue come later.

To understand the *modus operandi* of bovine infection attention is directed to the accompanying drawing of the bovine lungs, by Theobald Smith.

The darkened portions shown in the caudal lobes, and marked x, are the points of election in bovine pulmonary tuberculosis. Lying contiguous to, and immediately above, this part of the lung is the posterior mediastinal gland, which, in normal conditions, measures about six inches in length and is one half inch thick. When diseased the gland becomes enormously swollen and enlarged. The contiguous structures are the œsophagus, thoracic aorta, inferior vena cava, and thoracic duct, lying immediately above it. The distal end of the gland rests on the pillar of the diaphragm, while below it and separating it from lung tissue are the two layers of pleura, the parietal and the visceral, enclosing the pleural lake. The trachea and bronchi lie well forward of the gland and the bronchial glands are not contiguous to it. The diaphragmatic and œsophageal lymph vessels together with those of the adjoining parietal pleura pour their contents into the posterior mediastinal gland. This gland and the smaller mediastinal gland anastomose freely at the

bifurcation of the trachea with the lymph vessels from the bronchial glands (Koch's *Encyklopädie der gesammten Thierheilkunde*).

This gland, then, receives lymph radicles from the œsophagus, the diaphragm, and the parietal pleura in its immediate neighborhood, but never from the lungs. It does not, and cannot, in any way directly receive a lymph radicle from lung



Bovine Lungs (Theobald Smith). The darkened portions, x, x', show the points of election in bovine pulmonary tuberculosis.

tissue, as such a vessel to reach the gland would have to cross the pleural lake. Examination of the plates of the cow by Süssdorf will better enable one to understand the anatomical arrangement just described, and if one will place his hand on the cow's spinal column about midway along her back, it will lie about over the posterior mediastinal gland and over the tip of the caudal lobe of the lung, which is the point most often the seat of pulmonary infection. Or, better still, place the hand on your own back over the eleventh and twelfth ribs near the spinal column, and it will exactly mark the region which is infected in bovines. However, it must not be overlooked that this part of the lung in man is the most *dependent* portion, because of his erect posture, while it is the most *superior* portion in bovines because of the horizontal position. To appreciate and thoroughly understand the pathological picture of pulmonary tuberculosis in the cow

one should see an infected lung *in situ*. "Muscle traction," causing trauma of the apices; "atelectatic zones;" "unstableness of the apical tissue;" "defective circulation," etc., certainly would be meaningless terms and have no application after such an inspection.

In old cattle the posterior mediastinal gland shows large deposits of colored matter, and the lung tissue lying immediately underneath and across the pleural lake also marks the greatest pigmentation in their lungs. The pigmentation areas are commonly the exact anatomical sites of the initial lesions of tuberculosis. It seems clear that there must be some special mechanical reason why foreign matter is so uniformly deposited in this region in bovines, while in man it is in the apex, at the very opposite end of the lung. And another curious thing is that in each instance, both in man and in cattle, it is the *superior* portion of the lung which receives the pigmentary deposit or the attack by tubercle bacilli. Tuberculosis is not the only disease that shows this marked peculiarity. The disease of sheep, caseous lymph adenitis, which is due to the bacillus of Priesz, shows similar deposits in the same localities. In all animals where the posterior mediastinal gland is well developed, pigmentation and tuberculous lesions conform to the point of election in bovine infections, while in animals in which this gland is rudimentary, as it is in swine and rabbits, the initial lesions are scattered and have no fixed point of election.

Now, fixing the anatomy of this gland and its immediate surroundings in our minds, it must be perfectly plain that foreign matter and tubercle bacilli could only reach it, (1) by being screened out of the blood vessels which traverse it; (2) by a backward flow of the lymph from the thoracic duct; (3) by suction to the gland from the mucous coat of the œsophagus; (4) by foreign matter and bacilli being drawn across the pleural lake by the suction of the gland from lung tissue through the lymph radicles in the parietal pleura. It is hardly probable that a bacillus gaining the circulation would pass the pulmonary terminal arteries and select this gland. Latham has alleged that the bronchial glands in man are infected from a backward flow of lymph from the thoracic duct. Such a thing as a backward flow of lymph through any gland is improbable. If this gland receives its bacilli from the backward flow of lymph from the thoracic duct, they must then cross the pleural lake to infect the underlying lung tissue, and in that case how are we to account for the pigmentation of the gland? The lymph radicles to this gland form a plexus about the œsophagus in this locality, and this might explain how bacilli could reach the gland

from the œsophagus. But this is hardly probable, for John R. Mohler, of the U. S. Bureau of Animal Industry, found tuberculous foci in this gland in a five months' bovine fœtus with no other demonstrable lesions in the carcass, and it is not likely that the œsophagus of this fœtus could have contained bacilli. And he further calls attention to the fact that he has seen involvement of this gland in cattle following subcutaneous and intraperitoneal inoculations. Of one thing we can be nearly certain, and that is that the gland either receives its infection from the immediate underlying lung tissue, or this lung tissue receives its infection from this gland. In either case it is fair to presume that bacilli have previously gained the circulation, and the problem to solve is whether they are screened out in the gland or in lung tissue. In either event we are confronted with the fact that if bacilli are first screened out in this locality in the lung, they must pass through two layers of pleura to reach the gland, or if they are screened out in the gland they must pass to the underlying lung tissue by the same route. The latter condition, it would appear, is not the correct one, and that bacilli and foreign matter reach this gland from the lungs is nearly certain, for in man we find the analogous condition that coal dust has crossed the pleural lake to the intercostal lymph glands, and this is a very prominent feature in the first four interspaces in well marked anthracosis.

Probably all portions of our lungs are exposed to an equal degree of infection whether tubercle bacilli enter the circulation by way of the alimentary tract or are inhaled directly into the air sacs and then penetrate to the underlying circumalveolar tissue. Bacilli of themselves have no selective power for any particular portion of lung tissue, and once let them gain a foothold, they will grow as readily in one portion of the lungs as in another.

The assertion is made that in bovines foreign matter and bacilli are drawn from lung tissue across the pleural lake by the suction from this great gland, the posterior mediastinal. In the caudal lobe of the cow there must be two lymph currents, one to the bronchial glands, while the counter current would be across the pleural lake in the pull, the *vis a fronte*, of the lymph radicles in the parietal pleura, which empty into the posterior mediastinal gland. Now, if it is correct that there are two lymph currents counter to each other, then it must cause more or less lymph stasis at a delimiting line somewhere between the points of suction. A bacillus gaining the exact zone of stasis would become arrested and form a tubercle unless destroyed. If it were screened out of the blood vessels beyond this delimiting line, suction from the gland would cause it to drift into the pleural lake and across to the

gland through the stomata and lymph radicles of the pleura. If it did not fall within this zone it would be screened from the circulation by the terminal arteries, as described by Aufrecht, but here the lymph current would tend toward the bronchial glands, and a bacillus under the conditions just named would be drawn to these glands or in their direction. Any one can satisfy himself in a short time of the truth of the latter statement by careful examination of the conditions found in pneumoconiosis, for it will be noticed that the deposits of pigment in the lower lobes correspond exactly with the lymphatic distribution. If small particles of coal dust or other foreign matter are drawn along the currents of the lymph streams and uniformly deposited in and about these channels and in the bronchial glands, we are surely justified in believing that tubercle bacilli are subjected to the same mechanical causes.

Bovines have two points of election, viz., the one just described, the other being the cephalic lobe which closely corresponds to the apex in man. The suction from the great veins and lymph vessels in the angles of the neck, together with the suction from the anterior mediastinal glands, would explain how an area of lymph stasis could be produced here causing arrest of bacilli.

The site of the initial lesion of tuberculosis does not indicate that the bacillus has entered the body at that point. The common error of pathologists is, that they have tried to trace the source of the infection and point out the avenues of entrance by presuming that the site of the lesion indicated the channel by which bacilli gained a lodgment in the body. We must bear in mind that bacilli can penetrate our mucous membranes without lesion, and they do this wherever there is sufficient lymph suction, as there would be from the alimentary lymph radicles to the thoracic duct. Bacilli gaining the blood vessels would circulate freely as simple foreign bodies unless destroyed or arrested. The lodgment, then, of bacilli and foreign matter by apparent selection in a special organ, and in the superior part of this organ, contrary to the laws governing ponderable bodies, must be due to mechanical causes influencing them along unusual lines. Applying this reasoning we find that man has one point of election, and I believe the explanation for this constant deposit in the apex of the lungs lies in the fact that the *vis a fronte* by the great veins and lymph vessels in the angles of the neck causes enough suction to create a counter lymph current and an area of lymph stasis in the apices of the lung. A bacillus falling within this zone of lymph stasis would become arrested far quicker than elsewhere in lung tissue. If a bacillus is screened out of the

blood vessels in the lower lobes it falls within the influence of the suction to the powerful chain of bronchial glands. Bacilli picked up in this manner are most often destroyed, though, if the intake of bacilli is constant, sooner or later the glands suffer and show the damage done by the arrest. The pulmonary and bronchial lymph glands are essentially great scavengers that stand guarding our bodies from bacterial invasion. That they perform this function well by the frequent arrest of tubercle bacilli is proved by the great percentage of infection in these glands found in necropsies of subjects dying from other diseases.

LOS ANGELES, CALIFORNIA.

ACCIDENTS AND COMPLICATIONS FOLLOWING OPERATIONS ON THE NOSE AND THROAT.*

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The brilliant results obtained, and the elaborate descriptions of new operations upon the nose and throat which are being so constantly reported, create the impression that this portion of man's anatomy is not only tolerant to any extent of operative interference, but that it affords a fertile field for bold, and often dangerous, experimentation. It has been truly said that "in no other part of the body have so many attempts been made to improve upon Nature as upon the nose." (Hall, (1)). It is often a tempting field for the use of the knife, the drill, the saw, and caustics.

Two great errors have crept into the work of the laryngologist and rhinologist. The first is that stimulated by the wonderful progress which has been made in the field of general surgery, he now seldom attempts to correct redundant tissue or faulty secretions by constitutional treatment, but at once resorts to the knife or cautery. The second is an almost total disregard of the anatomy or physiological functions of the nose or throat. Unfortunately, too many intranasal operations are performed more for their cosmetic than constitutional effect, and the functions of the parts are too often forgotten and their activity, therefore, impaired or destroyed.

The nose is more than two holes in the face. When we consider the different functions in which the nose is wholly or in part concerned, we should hesitate before destroying healthy secreting tissue, and substituting non-functionating cicatricial tissue, merely for the sake of symmetry. Respiration—including the modification of temperature, the regulation of humidity and the filtration of dust and foreign substances—olfaction, phonation and audition

by the equalization of the air pressure through the Eustachian tubes, depend as much upon the presence of healthy tissue as upon the symmetrical relations of the bony parts. Syphilis, rheumatism, gout, indigestion, constipation, as well as cardiac, renal and hepatic disorders and affections of the reproductive organs, are too often disregarded as ætiological factors in the production of nasopharyngeal conditions. Family history, with its hereditary predisposition to certain diseases, as well as the occupation of the patient, with possible noxious or unsanitary environments, should both be carefully considered in every case.

In concluding a paper on this subject, Seiss (2) has very aptly said: "What is most needed in rhinology is not new forms of operative technique, but more careful study in ætiology and the dependence of nasal disease upon the system at large."

Hobbs (3) sounded the keynote of warning when he said: "While judicious and properly executed rhinal operations have done, and are doing, an immense amount of good, for this very reason the temptation is increased, in many instances, to do operations that were better not done, particularly by the younger men who are just making their entrée into this special line of work. They are loath to allow an opportunity to pass to saw a septum, to drill an exostosis or to cauterize a protuberance or an enlarged turbinate. . . . These conditions are too often deemed a sufficient reason for a surgical procedure even though no subjective or objective symptom may exist."

While the anatomy and function of the nose and throat preclude strict antiseptic precautions, still a more careful and a more thorough cleaning of the parts than is generally employed, should be insisted upon before any surgical procedure is attempted.

Kyle (4) has pronounced the *dictum* which should govern all intranasal operations due to exostoses. He has advised that such operations be performed only when there is mechanical obstruction to respiration, where secretions or foreign substances are retained behind such growths, or where there exists a reflected condition in some other portion of the economy.

When the necessity of operative interference in the nose and throat is unavoidable, care should always be exercised, regardless of the technique employed, that the repair should be accomplished with as little cicatricial tissue as possible. Scar tissue is nonfunctionating tissue. It is a depository for foreign substances and a site for crusts and scales, since by the destruction of its glands the mucous membrane is unable to free itself from these abnormal deposits.

Another possible source of danger which is but

* Read before the Northwest Medical Society, Philadelphia, January 6, 1903.

little considered, is the fact that when the operation is not fully completed, fragments of tissue and portions of bone or cartilage are allowed to remain, thus impairing drainage, interfering with the reparative process, and offering a possible source of infection. While the question of douching the parts with alkaline antiseptic solutions after operation is still *sub judice*, there can be no doubt as to the advisability of removing all detritus in a thorough and cleanly manner. The patient should be directed to blow the nose to free the nostril from any fragmentary portion of bone, cartilage, or blood clot, and the severed parts should be brought as nearly as possible in approximation before the introduction of any dressing.

The possibility of dangers and the records of cases in nasopharyngeal operations which have terminated fatally, should admonish us to use every precaution and avail ourselves of every safeguard to prevent or lessen the liability to serious complications or fatal results.

Epistaxis, one of the most common conditions met with in medical practice, is too often regarded as of little importance, and yet there are records of fatal hæmorrhage from this source. The routine practice of applying a cotton tampon or a styptic solution, thus allowing the entire nasal membrane of that side to suffer for a single bleeding spot, is to be condemned. It should be remembered that nasal hæmorrhage may be but a natural method of blood letting, due to hepatic, renal, or cardiac conditions, or may be mechanical, induced by the pressure of tumors or even of articles of dress. Attention should, therefore, be directed to the amelioration or correction of these constitutional or mechanical conditions, as well as to the local lesion.

In all cases of nasal hæmorrhage the use of cocaine solution, although the anæsthesia may facilitate the manipulation of the parts, is to be avoided; since the resulting hyperæmia following its use may cause a recurrence of the epistaxis.

While not prepared to concur in the absolute assertion of Woakes (5), that polypus of the nose is not a disease, *per se*, but only a prominent symptom of necrosing inflammation of certain of its special osseous structures, nevertheless, the thirty-three cases of polypi reported by Grünwald (6), in which he found three cases of empyema of the maxillary sinus, fourteen of the ethmoid, one of the sphenoid, and eleven in which there was combined empyema of several cavities, prompts a consideration of the frequency of sinusitis as a symptom or even a primary cause of polypoid growths. All operations for these growths should be as near the base of the tumor as possible, and yet care should be taken to avoid injury to the osseous structures. Drainage

of the normal sinus openings is thereby obtained, and infection of the cavities prevented, if it does not already exist. Curretting and the application of caustics after such operations are dangerous, because of the possibility of destroying the surrounding tissue or of infecting the sinus. Rayser (7) has reported a case of meningitis with empyema of the superior maxillary sinus, and death in eleven days following such an operation.

Ozæna, although but a symptom of pressure or molecular death, is frequently associated with, or may be the result of, sinus infection. It should also be remembered that this condition may be but a symptom of undetermined or hereditary syphilis.

Stork (8) has reported five cases of meningitis, in one of which death occurred resulting from operation with the curette on nasal ulcers.

In abscess of the septum care should be exercised to guard against injury to the blood supply through severance of its vessels, since the interference in the nutrition of the part may result in permanent perforation. In opening all such abscesses the incision should be made from the lowest portion of the tumor obliquely upward, thus insuring complete drainage. Indeed, unless there is a distinct history of injury, or there exists a marked ulcerative process on the septum, careful investigation should be made as to the existence of syphilitic infection, and, if such is found, the treatment should then be directed to the constitutional condition, rather than to the local manifestation.

The fatalities which have resulted from operations upon enlarged turbinates are so numerous that they excite apprehension and induce the greatest precautions. Standing as they do in close proximity to the normal sinus openings, the turbinates are liable, during the process of repair following operation, to infect these cavities. Fatal cases have been reported as following these operations by Quinlin (9), from the use of the galvanic cautery; by R. Wagner (10), from meningitis, with death in thirteen days; and by Bulette (11), of Pueblo, from thrombosis and meningitis, after using the saw, with death in twelve days. A less serious danger, but one that is accompanied by untold suffering to the patient from operations upon the turbinates, as also in the removal of septal spurs, is the possible formation of synechia. While the existence of an exostosis on either side of the nasal chamber may produce serious pharyngeal or laryngeal symptoms, these membranous or osseous bands, resulting from operative procedures, are much more serious, and may be productive of greater functional disturbances than the original condition for which relief was sought.

In operations for the removal of septal spurs, care should be exercised to distinguish between an

osseous growth and an acute deflection. In some cases the angle of such deformity is so marked that the concavity in the opposite nostril is scarcely discernible, and operation for the removal of the redundant tissue results in permanent perforation. Besides the more serious complication which may result from operations for these conditions, care should be taken, in the use of the nasal saw, that injury be not inflicted upon the mucous membrane in front of or behind the exostosis, and that the flap be not detached; also, if the tampon is used as a dressing, that it be not packed too firmly or retained long enough to cause necrosis of the flap. Ulceration, and even perforation, are particularly liable to occur at the triangular cartilage, by reason of the limited blood supply to the sæptum. Attention has been directed to the fatalities resulting from such operations, notably by Lange (12), who records a case of thrombosis followed by death in ten days, and by Levy (13), of Denver, who reports a case of thrombosis of the posterior cerebral artery, with death in fifteen days, following an Asch operation. In commenting upon this case, Dr. Levy says: "Meningitis, sinus thrombosis, and death are not unfrequent accompaniments of purulent affections of the nasal accessory cavities, and in some instances in which operations were undertaken for relief of empyemata, it has been difficult to decide the relative rôle played by the disease and the operation." Within the past few years the surgery of the accessory cavities has received more marked attention from the rhinologist, and to-day many cases of head ache of frontal location and periodical in character, which were formerly supposed to be of malarial origin, are traceable to infection of the frontal or ethmoidal sinuses. Indeed, any operation upon the osseous structures of the nostrils may cause empyema of the adjacent sinuses, by occluding their normal openings through the resulting œdema or through these same channels an entrance may be found for the introduction of septic material. Continued attention to the patient, frequent renewal of dressings, and careful cleansing of the site of operation are necessary to prevent such accidents.

The most common operation of early childhood, without doubt, is that for the removal of adenoids. So frequently is this performed that the contingency of fatal hæmorrhage is liable to be overlooked; and yet several such cases have been placed on record. The possibility of injury to the Eustachian tubes—"Eustachian salpingitis"—with a chronic otitis or even permanent deafness, must not be disregarded. Injury to the choanæ, with partial cicatricial occlusion of these openings, also causes impairment of respiration and induces functional disturbances in later life.

Chronic deafness may also occur as a sequela

of adhesive or cicatricial contraction of the orifices of the Eustachian tubes, as a result of the inflammation attendant upon abscess of the tonsils. To obviate this possibility such conditions should always be operated on as soon as pus is demonstrable; care being taken that the incision be made toward the median line, to avoid the liability of injury to the blood vessels distorted by the inflammatory process.

Many, indeed, have been the reports of serious, and even fatal, cases of hæmorrhage following amygdalotomy. Careful examination for the existence of pulsating vessels should, therefore, precede the use of the amygdalotome. When such hæmorrhage occurs it will be found to be due to an anomalous ascending pharyngeal or tonsillar artery, or to an unduly large artery in the anterior arches.

While the advantages of intubation over tracheotomy in subjects under the age of five years are fully recognized, it must not be forgotten that the possible accidents which may occur during intubation are numerous. Among the more serious is the contingency of the membrane extending further down the trachea than the length of the tube employed, and also the liability of detached fragments of membrane being forced in advance of the tube, thus occluding its opening. In either of these accidents death speedily results unless the patient is relieved by tracheotomy. It is, therefore, imperatively necessary that we should be prepared to perform tracheotomy in all cases where intubation is to be employed.

It is not with the purpose of detracting from the merits and advances which have been made in laryngology and rhinology that these precautions have been uttered, but rather with the view of directing attention to the possible dangers, and even fatalities, which may attend the most careful operator.

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A Hospital at Englewood, Chicago, is to be constructed by the Daughters of St. Joseph. It will be a four story structure on Harvard Avenue, south of Sixty-third Street, and will cost about \$80,000.

FAT NECROSIS AND REPORT OF A CASE.*

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Mr. President, and Gentlemen of the Clinical Society:

The selection of the subject of fat necrosis for a short paper this evening, grew out of the fact of my having had rather a unique case of it with our president, Dr. Griffith, last summer. Pancreatitis and fat necrosis would perhaps be a more appropriate title. I can give you nothing new or original on the subject, but as it is only in recent years that fat necrosis has been thoroughly studied and experimented with, I am encouraged to believe the facts I have got together, in connection with the report of a case, may prove of some interest to the society.

A word in the beginning upon the anatomy and physiology of the pancreas. The pancreas is an elongated gland—six to eight inches in length, and three to four ounces in weight—lying behind the stomach at the level of the first and second lumbar vertebræ. It consists of a head, neck, body, and tail. The head lies in the concavity formed by the duodenum, and in a well developed gland, one third of the circumference of the duodenum may be in contact with it. The neck is about one inch, connecting its head and body, arching up from the latter, and contains posteriorly a sulcus for the portal vein. The body has three surfaces—anterior, posterior, and inferior. The anterior is closely covered by the posterior layer of peritonæum of the lesser sac; in front is the stomach; the posterior surface rests upon the aorta, pillars of the diaphragm, splenic vein, the kidney, its vessels and suprarenal capsule. Normally it contains two ducts which open separately into the duodenum. The main duct, the canal of Wirsung, begins in the tail of the pancreas and gradually increases in size by the conjunction of its tributaries. Just before reaching the duodenum it unites with the common bile duct to form the ampulla of Vater. This diverticulum narrows to an opening in the mucous membrane, being nearer the posterior than the anterior wall of the gut. The accessory duct of Santorini opens into the duodenum one inch above the other opening. An accessory pancreas may be found chiefly in one of four positions, in the wall of the stomach, the duodenum, jejunum, or ileum. The pancreas is an acinotubular gland, the duct being lined by columnar epithelium. Langerhans has described certain masses of cells

in the interalveolar tissue, differing from the ordinary secretory cells of the pancreas. These islands of cells probably have independent origin.

There are four ferments of the pancreas, viz.: a proteid digesting ferment, trypsin; a starch converting ferment, amylpsin; a fat splitting ferment, steapsin, the one that mostly concerns us this evening; and also a milk curdling ferment.

Pancreatitis and the allied condition, fat necrosis, have in the last several years attracted the attention of the clinician, the surgeon, and the pathologist, all of whom have been led by the obscurity surrounding the processes, as they occur in human beings, to seek for a solution of their difficulties in data collected from experimental studies. The nature and causes of fat necrosis may now be said to be pretty well established. Our knowledge of this condition dates from the classical observations of Balzer, made in 1882, although in the older literature it is unmistakably referred to. Since 1882 it has been investigated by Langerhans, Williams, Opie, Flexner, and other distinguished pathologists. By fat necrosis is understood a splitting up of fat, by the ferment steapsin, into fatty acids and glycerin; the latter is absorbed, but the acids being insoluble, remain in the cells and unite with the calcium salts, forming yellowish white patches of various sizes in the subperitoneal fat, in the omentum, the mesentery and more distant parts, such as the pericardial fat and subcutaneous tissue. The tissue is not unlike that of a miliary tuberculosis and may be readily mistaken for it.

Upon the basis of observations upon human beings, as well as from results of experimental work, Dr. Flexner, of the University of Pennsylvania, was able to conclude as follows.

(1) The secretion of the pancreas may enter the peritoneal cavity without setting up diffuse inflammation.

(2) In a certain number of instances, the free sterile pancreas or the secretion causes local fat necrosis.

(3) The element of infection plays an insignificant, if not an entirely unessential, part.

(4) In peritoneal fat necrosis, the fat-splitting ferment is demonstrable at certain stages of the pathological process.

(5) It is present in greater quantity in the early stages and may disappear later when healing is advanced.

(6) Although it cannot be affirmed that steapsin is the direct cause of the necrosis, such an assumption is rendered highly probable by its constant occurrence in the diseased areas, its absence from healthy fat, and the nature of the pathological changes.

(7) The escape of the pancreatic secretion into the peripancreatic and parapancreatic tissues is the origin of the necrosis and this escape is facilitated, not only by the lesions of the pancreas it-

* Read before the Clinical Society of Washington, D. C.

self, but also by the disturbance of the circulation. This escape may be brought about by injuries inflicted upon the pancreas, by ligature of the ducts, as well as by the production of passive congestion.

In certain diseases of the pancreas, there is a general hæmorrhagic tendency, which is much aggravated by the presence of jaundice, and it is said the glycerin set free in the tissues by fat necrosis may be the cause of a local hæmorrhagic tendency. Post mortems have shown that fat necrosis accompanies the majority of cases of acute hæmorrhagic pancreatitis. The symptoms of pancreatitis are variable and differ in the separate forms. It is a disease without pathognomonic signs and a correct diagnosis is usually only arrived at by a careful history, taken at the onset, with combinations of symptoms. Extreme and rapid loss of weight and light colored stools without jaundice, are very suggestive. It has been proved that absence of pancreatic juice in the intestine will cause white stools. More or less satisfactory evidence of defective pancreatic juice is afforded by abundance of undigested muscle fibre in the motions of a patient not suffering from diarrhœa, after a meat diet. Glycosuria is a very rare symptom, only occurring, it is said, when there is great destruction of tissue, as in extensive cirrhosis or extensive malignant disease. It has been shown that so long as the islands of Langerhans remain intact, glycosuria is absent.

Fat in the stools is more common, but is not by any means universal, and lipuria is still more uncommon. Bacterial infection is the essential and immediate cause of the various forms of pancreatitis, as has been proved clinically in the human subject, and experimentally in the lower animals. As in inflammatory affections of the liver and bile ducts, we look for extrinsic causes, so in pancreatic diseases, we find biliary and pancreatic lithiasis, injury, gastroduodenal catarrh, ulcer, and cancer of the stomach or duodenum, and zymotic diseases, such as typhoid, mumps, and influenza, to be determining factors, though in some cases pancreatitis has come on suddenly in persons of robust health and the cause has been beyond recognition. Infection may come through the blood, though the most common way is by extension through the duct. Gall stones not infrequently become impacted in the ampulla, and are said to cause a retrojection of bile.

The case of fat necrosis that I shall now report is unusual, mainly on account of the large tumor that was formed, and in reading over a number of reported cases of this condition, there seemed to be no reference made to so great a mass. It is as follows:

Mr. F., white, male, age fifty-six years; widower. *Family history:* only child; mother and father died at an advanced age. *Previous history:* Habits exemplary. As a young man, was for years troubled with irregular bowels and indigestion, and would occasionally have what he called a bilious attack. Prior to coming here two years ago, to accept a place as head attorney in one of the government departments, he had led a very active life, having been a busy lawyer in a Western town, and at the same time managing a large farm. Has been a rapid eater all his life. He is the father of six children, all of whom are healthy. His wife died from sarcoma of the antrum about one year ago. As long ago as three years, he was conscious of something being wrong in the epigastric region, where he had occasional distressed feelings; and at that time spoke to his wife about the possibility of his having cancer. The discomfort was never great enough, however, to cause him to consult a physician.

History of Present Attack.—On July 4, 1902, the patient went to Gettysburg, sight seeing; he walked about ten miles that day—which was most unusual for him—and considerably during the two succeeding days of his absence, and, as he said, ate irregularly and imprudently all the while. He returned to Washington on the evening of July 6th, feeling quite fatigued. He retired early that night and soon fell asleep, but was awakened about four o'clock the following morning with a chill, attended with intense nausea, vomiting, and severe pain in the epigastrium. Dr. Griffith was called in at this time and found him greatly prostrated from the retching and pain, and relieved the immediate symptoms by a hypodermic of morphine. There were also slight fever and constipation. Later in the day Dr. Griffith noticed an unusual prominence just above the umbilicus and patient remarked that his trousers had seemed tighter than usual for some weeks, which he, however, attributed to recent increase in weight, having gained twenty-five pounds during the previous four months. His weight at this time was 200 pounds; height, 5 feet, 8 inches.

The patient's condition would not admit of a thorough physical examination of the abdomen for several days. About July 10th, the severe symptoms had abated very much, though he was restless and nervous and suffered from insomnia; and doubtless thinking he should improve more rapidly, he requested a consultation. Dr. Griffith kindly asked me to see the case with him.

The nausea and the pain, which was described as "burning," still persisted, though less in degree; the fever ranged from 99 to 101° F.; pulse 80 to 90, fairly good in character. Urinary examinations showed sugar in one specimen, and in several others, slight traces of bile were found. Patient was very slightly jaundiced and had a pasty look, stools almost white in color. Dr. Nichols made one examination, of both the blood and the urine, from which he reported negative results.

After Dr. Griffith and I had seen the patient several times together, we found it practicable to

make a physical examination of the swelling, which proved to be a distinct tumor lying midway between the umbilicus and ensiform cartilage. It was quite the size of an ordinary fetal head, somewhat movable, and very tender upon slight pressure. No attachments could be made out. We were at least sure of the presence of a tumor, which, to our minds, was the source of his trouble, and in connection with the persistent, though slight fever and pain, and a pulse becoming gradually more rapid and weaker, we decided that an exploratory operation was necessary. The son, who had just come on from the West, was so informed. In view of the gravity of the case, a second consultant, Dr. Middleton Cuthbert, was called in, who at once agreed that a laparotomy was called for.

July 25th the patient was taken to Garfield Hospital, and after the usual preparations, on the following day, with Dr. William Carr's assistance, Dr. Griffith giving the chloroform, I made an exploratory incision, five inches in length over the tumor. The subcutaneous and subperitoneal fat was found to be unusually thick. The latter was so great and contained arteries and veins of such size that we believed, for a moment, it must be omentum. This proved not to be the case, however, and upon incising the peritonæum, the large mass at once presented itself, which was no smaller than the previous palpation and percussion seemed to show. There seemed to be no disease of the abdominal wall fat, in spite of the extensive disease on the inside, which involved a considerable portion of the small and large bowel with their omentum and mesentery. The transverse colon lay in a sulcus at its upper part, the duodenum and ileum being intimately attached below, and the excessive fat of their omentum and mesentery, which was diseased and lumped together, apparently made the bulk of the mass. The thickened gastrocolic omentum was broken through at the left side of the tumor, to reach the pancreas, which was found to be somewhat enlarged and distinctly attached to the tumor mass by a thick pedicle. Gall bladder, liver, and spleen normal.

Whatever the nature of the diseased tissue, whether benign or malignant, it was soon decided that it would be impracticable to attempt its removal. A specimen was, however, peeled out with the finger, resulting in considerable bleeding and requiring packing with gauze. Of the six or seven physicians present a majority believed the condition to be cancer; others thought it probably tuberculous.

The reports on the specimen from three microscopists were conflicting; one pronouncing it fat necrosis and probably carcinoma; another stating that it was undoubted cancer; and a third, fat necrosis with positively no malignancy.

Dr. Flexner confirmed the last diagnosis, and said that the specimen was one of the most typical fat necrosis he had seen, and requested that he be allowed to keep the specimen. Certainly we know, now, that it was fat necrosis only, and the large mass had evidently been months or longer in forming, probably from a subacute pancreatitis, and the acute symptoms were not un-

likely induced by an acute gastroduodenitis. The patient had an uneventful recovery, barring a sapræmic condition, its focus being in the abdominal wall, probably set up by some of the necrotic tissue being left in contact with it when the gauze packing was removed. This caused considerable fever which subsided as soon as better drainage was established. The patient lost 45 pounds during the six weeks in bed. We have failed to discover any tumor since he left the hospital, though repeated examinations have been made. He resumed his work on October 15th last, and is apparently as well as ever. The treatment seemed to be ideal, though it was not known at the time that it would prove so beneficial. He wears an abdominal support and is careful not to eat anything that may cause indigestion.

In August, 1903, the patient told me he felt better then, than he had for several years prior to the operation.

The prognosis in such a case is particularly interesting, and I have found little in literature to enlighten me on the subject.

LARYNGEAL COMPLICATIONS IN TYPHOID FEVER. REPORT OF A CASE. TRACHEOTOMY. RECOVERY.*

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No subject within the domain of medicine has had more earnest thought and painstaking researches focussed upon it than that of typhoid fever. Yet the laryngeal complications of the disease, which occur more frequently than is generally supposed, and when present diminish the chances of recovery, are woefully ignored by the profession at large.

With one or two exceptions, our text books bestow on these gravest and least expected complications of typhoid only a passing notice. Even works devoted to laryngology give the most meagre information on the subject.

The general indifference to the laryngeal affections which sometimes accompany typhoid may possibly be due to the fact that, at the bedside, other, apparently more threatening, symptoms overshadow all else. The inability or disinclination of the attending physician to use the laryngoscope, the stuporous and feeble condition of the patient rendering this procedure impossible, also seem satisfactory explanations.

It is interesting to note that the recognition of

* Read before the Orleans Parish Medical Society, June 27, 1903.

laryngeal lesions complicating typhoid is not altogether of recent date. Bouillaud, in 1825, and Louis, in 1829, refer to cases of this nature. Isolated reports of such cases appeared in the literature from these earlier dates to the year 1876, when William Keen, of Philadelphia, collected 169 cases of typhoid affections of the larynx.

Luning, in 1884, who evidently knew nothing of Keen's collection, published 213 collated cases, presumably identical with Keen's first series, to which he added 14 personal ones. In 1898, Keen published his classic monograph on *The Surgical Complications and Sequels of Typhoid Fever*, in which we find 38 cases of laryngeal complications collected since Luning's paper, which, with Luning's 14 original ones added to Keen's 169 cases of his first series, gives a total of 221 cases collated up to the year 1896. This practically included nearly all the cases recorded in the fifty years prior to 1896.

With the valuable assistance of Dr. L. De Poorter and Mr. George Augustin, I have attempted to bridge over the period from 1896 to May, 1903. We have made extensive researches through the literature, using the *Index Medicus*, *Bibliographia Medica* and *Index Catalogue of the Surgeon General's Office*, as references, with the result that I can now add 34 collected cases of laryngeal complications in typhoid to Keen's series, with an additional personal case, which gives a total of 256 cases, the approximate number reported in the last fifty-eight years.

ETIOLOGY.

Rokitansky, in 1842, anticipated some of the most recent views as to the causation of these affections, by considering the laryngeal involvement "as a true metastasis of the poison."

Keen, however, in 1898, was not aware of a single observation which had revealed the presence of the Eberth bacillus in the larynx. He evidently knew nothing of Schulz's demonstration, in 1894, of typhoid bacilli, both in sections and cultures, from the swollen lymphoid nodules of the larynx.

Cornil, Ranvier, and Watson Williams adduce similar evidence from histological examinations. Lucatello, Klebs, Mackenzie, and many other observers, are unanimous in their opinions that these affections in the larynx are true typhoid lesions, identical with those of Peyer's patches.

A study of the laryngoscopic findings and the observations at necropsies tends to show that the lesions in the larynx have special characteristics, and in regard to their seat, form, and course are so typical that they form a separate class deservedly considered typhoidal.

Typhoid being a polymorphous disease, showing a predilection for lymphatic tissue wherever distributed, is it not possible to have a primary localization of the disease in the adenoid deposits of the larynx?

Professor Gerhardt's case of "laryngotyphoid" (reported in the *Archives of Laryngology*, 1880), has a distinct bearing on this question. In this instance the larynx presented the typical typhoid ulceration at the very onset, the other usual symptoms appearing in their regular order. In two cases recorded by Schuster the infection at first seemed to be focussed in the larynx. Watson Williams¹ reports the case of Ernest S., in which the "enteric fever commenced with the laryngeal affection," the larynx being the seat of typical typhoid lesions. The Eberth bacilli were demonstrated in cultures inoculated from the ulcers on the arytenoids. The necropsy finally confirmed this diagnosis. Additional evidence was furnished by the history of this case, which disclosed the interesting fact that the attending nurse and a friend from another ward who visited this patient both contracted genuine typhoid from Ernest S. The delirious patient expectorated freely on the bedclothes; and all the facts surrounding this case seem to point to the expectorations as the only possible source of infection, which, by the way, tends to support the recent views relative to the infectiousness of typhoid.

While weighty arguments, clinical data, and bacteriological evidence seem to support the contention that, in most instances, these affections are directly caused by the Eberth bacilli and their toxins, it must also be admitted that they are sometimes pyogenic. I have found several cases in which histological sections and cultures failed to disclose typhoid bacilli, but revealed pyococci in abundance.

Many of the earlier writers attributed all such conditions to secondary diphtheritic infection. Several recently reported cases, while presumably caused by the Klebs-Löffler bacillus, lack microscopical confirmation.

Murray² and Robertson³ each report carefully observed cases of Ludwig's angina occurring during the third week of typhoid. Death supervened. In Robertson's case, the microscope showed pure streptococcic infection.

Dorsal decubitus is considered a predisposing factor in the causation of these morbid changes in the larynx. The effect of gravity leading to venous stasis and softening of tissues, particularly

¹ *Diseases of the Upper Respiratory Tract*, etc.

² *American Medicine*, 1903. ³ *Ibid.*, 1901.

along the posterior wall of the larynx, might result in abrasions of the parts, thus permitting the entrance of the infecting organism.

FREQUENCY.

Landgraf's estimate, based on all known statistics, places typhoid affections of the larynx at 11 per cent. of all fatal complications. Griesinger's, at 26 per cent. of all his fatal cases. Luning estimates it at 3 per cent. from clinical statistics, and 17 per cent. from post mortem examinations. The latter's analysis shows plainly that the condition is but too infrequently recognized during life, a necropsy revealing it as one of the probable causes of death. More frequent use of the laryngoscope and post mortem findings increase the percentages.

PATHOLOGY.

Pathologically, these affections may be grouped into three varieties: (1) Submucous laryngitis (in which the deeper tissues are involved); (2) ulcerative laryngitis; (3) laryngeal perichondritis. Practically, it is difficult to separate these forms, one may overlap the other. Œdema in this class of cases being of inflammatory origin, exists only with either of the above forms.

Necrosis of the cartilages resulting from perichondritis, is, from Keen's and Luning's statistics, by far the most common form of laryngeal complication, the cricoid, and next to it the arytenoid, being most frequently involved.

Ulcerations appear next in frequency; observers, however, are divided as to whether the ulcers precede the perichondritis or follow it. Both are probably correct. Keen shows, so far as the clinical history and post mortem appearances enable him to judge, that in 20 cases the perichondritis preceded the ulcers and caused them, while in 10 cases the ulceration had caused the perichondritis. These ulcers, in the light of recent observations and bacteriological evidence, are divided into the specific and non-specific, both varieties presenting a group of features which permits a clinical and laryngoscopic differentiation. These specific ulcers, true typhoid lesions, are excavated, with infiltrated areas surrounding them, and are especially productive of profound tissue changes. The non-specific, due to secondary infection by any of the pyococci, are superficial lesions, only slightly undermined, with no surrounding infiltration, and which cause slight damage to the parts. Local nutritive disturbances might also result in superficial ulceration.

The position of the specific ulcers in the larynx is noteworthy and typical, as they show a marked predilection for the posterior laryngeal surfaces. Recent clinical observations, and post mortem

findings, reinforced by our knowledge of the pathology of enteric fever, tend to prove that true typhoid lesions occupy the adenoid areas normally distributed in the larynx. It is in these lymphoid deposits, situated more especially at the base of the arytenoids, posterior plate of cricoid, ventricular bands, in the ventricles of Morgagni, that true typhoid alterations, identical with those in the intestines, occur.

The epiglottis comes in for its share of typhoid involvement, not a few cases being reported in which it was alone the seat of ulcerations. Its anatomical relation to the larynx makes it play a prominent part in most cases of typhoid complications in which marked œdema is present.

Most observers ignore the question of laryngeal paralysis; 20 recorded cases show that it occurs principally in convalescence, the abductor muscles bearing the brunt of the involvement; this condition is apparently due either to a peripheral neuritis or to pressure on the recurrent nerve by enlarged lymphatic glands. Wishart⁴ and MacCoy⁵ report cases, one requiring tracheotomy, another intubation.

In the more severe typhoid affections of the larynx, the diagnosis is readily suggested by the overshadowing clinical feature of dyspnoea, suffocation. It is, however, to be emphasized that a true appreciation of the laryngeal condition is sometimes masked by the patient's apathy and insensibility to pain, or by other threatening symptoms which are common to the disease. The laryngeal invasion occurs in the most insidious manner, a milder grade of inflammation being suddenly followed by a stenosis, which means a struggle with death. The onset, except in primary involvement, is late, about the third week, frequently in convalescence, when the physician's fears are lulled by the prospect of certain recovery. The initial symptoms of hoarseness and alterations in breathing are too often attributed to weakness. They may prove "the heralds of the gravest dangers," and nothing but frequent examinations from without, and by the laryngoscope, give us the proper information.

In the milder forms of inflammation, steam inhalations of menthol in tinct. benzoin co., or spraying with menthol in liquid albolene, sucking pellets of ice, the ice pack over the neck, might prove efficient treatment. But when the stenosis once sets in, tracheotomy offers, in most cases, the only hope. It is especially indicated in necrosis of the cartilages, which frequently follows perichondritis, and in which the mortality without operative interference is 95 per cent.

⁵ *Transactions Associated Physicians, Philadelphia, 1901.*

⁴ *Philadelphia Medicine, July, 1901.*

Analysis of 26 of my collected cases shows that in 10 recoveries 9 were operated on. In the 16 fatal cases only 4 were operated on. The contrast between these figures speaks for itself.

Intubation is hardly applicable. In perichondritis or necrosis, by interfering with the escape of pus and the necrotic tissue, it would prove worse than useless. In two of my collated cases, it was practised with success only in one instance, a case of complete abductor paralysis.

When life is saved, what are the final results? In not a few cases, permanent damage to the parts by the morbid process enforced the permanent wearing of a cannula. Luning's statistics show that of 60 cases recovering after typhoid perichondritis, 11 dispensed with the cannula in periods varying from seven months to six years, the other 49 wore the cannula permanently. Three cases from my series could not dispense with the wearing of a tube.

The treatment of posttyphoid cicatricial stenosis, by gradual dilatation with bougies and special tubes, is summed up in a few words—it does not fulfill what it promised.

I now present a case of submucous laryngitis complicating typhoid, which occurred in my private practice.

Mrs. F. T., aged twenty years, was taken ill with typhoid fever on December 1, 1902. The clinical chart of the case, which records high and persistent temperature rises, intestinal hæmorrhages, pneumonia, alarming cardiac depression and delirium, furnishes proof that the disease followed a very severe course. During the second week patient complained of her throat, examination of which disclosed nothing markedly abnormal; daily spraying with antiseptic solution gave relief to the dryness and irritation.

On the morning of January 1, 1903, there was much hoarseness, during the day the breathing became labored; toward night the respiratory embarrassment had greatly increased; the chart records respirations, 48 to 60. At one o'clock in the morning, January 2nd, Professor Ernest Lewis, the attending physician, telephoned me to report to him with tracheotomy and intubation instruments. The marked dyspnœa, inspiratory stridor, aphonia, and tracheal tugging, all pointed to laryngeal stenosis. Laryngoscopic examination revealed diffused and symmetrical tumefaction over the entire surface of the larynx, the vocal cords seemed fixed on the median line, and during inspiration separated only near the posterior edges, reducing the glottis to a mere slit, through which the feeble respiratory functions of the larynx were carried on. The epiglottis appeared normal. I suggested the local use of adrenalin solution before resorting to any instrumental or operative procedure.

A few minutes after spraying about a drachm of the adrenalin—1-1,000 solution—there was a noticeable improvement in the breathing. I re-

peated the spraying in about ten minutes, shortly after which there resulted such marked relief that Professor Lewis, considering his patient out of immediate danger, retired, leaving me in charge of the case for the remainder of the night. I ordered the spray to be kept up every hour, using the same quantity and strength of the solution, also fifteen drops of adrenalin internally, every hour. The treatment was faithfully carried out, and the patient, while still aphonic, appeared greatly relieved until about 12 o'clock that day, when the dyspnœa again gradually set in.

Dr. Landfried was called in consultation. We both performed laryngoscopic examinations, which disclosed the following conditions: There was no tumefaction visible; the parts were blanched and contracted (this alteration had been evidently effected by the action of the adrenalin), both cords were fixed in the median line, with only the slightest separation along their posterior half during the inspiratory act. We agreed that such a condition could only be caused by ankylosis of the cricoarytenoid articulation. We decided to temporize with the same treatment, hoping for absorption of the effusion which had evidently taken place in the cricoarytenoid joints.

The breathing steadily grew worse and the patient weaker. At eight o'clock that night, Professor Lewis and Professor Elliott, Dr. Landfried, and myself, met in consultation and decided that tracheotomy offered the only hope. Ably assisted by Dr. Landfried, I performed, under local anæsthesia, a high tracheotomy, which shortly gave the much desired relief.

About four hours after the operation, the nurse telephoned that there was profuse bleeding from the wound. I found the patient gasping for breath. Examination showed the tracheal tube occluded with blood clots. After removing it and introducing the tracheal dilator, impending asphyxia was averted. Dr. Lewis arrived on the scene, and together we ascertained that the bleeding, which still continued, came from below, somewhere along the lower respiratory tract.

In the space of fifteen minutes, two doses, fifteen minims each, of adrenalin solution, 1-1,000, were given hypodermically. This seemed to promptly check the hæmorrhage. It did not recur, and the patient did splendidly until the next evening at 1 o'clock, when I was summoned by a message that she was dying. It was no exaggeration, as I found her in a state of profound collapse, scarcely breathing, and almost pulseless.

My first thought was to remove the large tracheal tube I had introduced that morning. It showed no occlusion. This crisis appeared to have been brought on by heart failure. The introduction of a dilator into the trachea, however, materially assisted the feeble respiratory movements, and immediate stimulation of the heart with adrenalin, brandy, and strychnine, finally proved effective in resuscitating our moribund patient. This ended the life-menacing postoperative complications which would undoubtedly, in each instance, have caused a fatal issue but for timely assistance. In about a week the temperature curve and general condition of the patient showed that the typhoid fever had run its course.

Frequent laryngoscopic examinations were made, disclosing no change in the fixation of the cords until about ten days after tracheotomy, when bilateral abductor movements were plainly discernible. About three days after the discovery, by the removal of the tracheal tube, temporary closing of wound, the larynx was found to carry on both its respiratory and phonatory functions perfectly. The tube being no longer needed, the wound was allowed to close. The patient's voice has not suffered the slightest alteration, and nothing remains but a linear scar on the neck, which must prove an ever present reminder of her almost miraculous escape.

REMARKS.

The case above reported elicits the following points of interest: The prompt relief, during nine hours, which followed the local use of adrenalin.

The alarming hæmorrhage which occurred a few hours after the operation and presumably due to hypostatic congestion of the right lung, which had been previously recognized by the attending physician. Noteworthy proved the action of adrenalin, given hypodermically, which, from several of my experiences with the drug given internally, I have reason to believe arrested the bleeding in this instance.

The complete restoration of the cricoarytenoid joint movements, which guaranteed the normal respiratory and phonatory functions of the larynx, is exceptional.

The diagnosis of submucous laryngitis is supported by the laryngoscopic appearances and by the clinical features of the case.

A perichondritis, proved by an analysis of reported cases, is not followed by such quick and complete tissue repair. The possibility of paralysis of the vocal cords was duly considered, but the laryngoscopic image, and the action of adrenalin, which, while it relieved the general infiltration, would have had no influence on a paralysis, argued against such a condition.

GENERAL CONCLUSIONS.

These 25 collated cases, reported in the last fifty-eight years, which for evident reasons are only approximately correct, afford eloquent proof that the subject of typhoid affections in the larynx calls for general recognition.

Evidence, bacteriological and clinical, strongly supports the view adopted by the majority of observers, that the laryngeal involvement in most instances is a direct typhoid infection.

A high death rate, as shown by statistics, when this complication exists, teaches the salutary lesson of always examining the larynx when the danger signals of hoarseness, dyspnœa, or dysphagia set in.

The favorable results which follow operative

interference offer such a contrast to the high mortality without operation that there can be but unanimity of opinion as to its propriety.

Tracheotomy is the most approved, because in most cases the only possible surgical procedure which can save life.

SYNOPSIS.

Twenty-five cases in which complete reports or abstracts were accessible.

Lesions in Larynx.

Laryngeal perichondritis.....	Cases	5
“ ulceration.....	“	5
“ necrosis.....	“	3
“ abductor paralysis.....	“	2
“ œdema.....	“	3
“ diphtheria (presumably).....	“	3
Ludwig’s angina.....	“	2
Abscess in larynx.....	“	2
		25

FINAL RESULTS.

With Operation.						Without Operation.	
Tracheotomy.	Intubation.	Recovery: (Trach., 6) (Intub., 1)	Died: (Trach., 4) (Intub., 1)	Complete recovery without chronic laryngeal sten- osis.	Wore cannula per- manently.	Not operated on.	
						Died.	Recovered.
10	2	7	5	4	3	13	9 4

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A DEVICE FOR THE PREVENTION OF PREMATURE BALDNESS.

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Observing cases of alopecia, especially of the premature variety, one is struck by the prevalence of this affection under peculiar conditions and the absence thereof in others, where one might expect even the senile variety.

Among savages and the half civilized the condition would seem to be comparatively rare; e. g., the American Indian, the Filipino, and the Chinese.

This observation has led the writer to reflect upon a cause of this condition, and he concludes it to be often due to the tight hat band, and the impervious material from which the head gear of many civilized persons is constructed. The former, by cutting off the free circulation of blood to the scalp, leads to atrophy of the hair bulbs, which is possibly contributed to, on the other hand, by the lack of ventilation, owing to the aforesaid impervious material, which keeps the head, especially after free perspiration, in a constant state of moisture and soggy; thereby, engendering a condition hardly favorable to the proliferation of an exuberant and healthy growth of hair. It is a continuous poultice and a sweat poultice at that.

In passing, it may be remarked that women do not wear hats around their heads as do men, but upon them. Baldness among their sex is comparatively rare.

It will be observed that baldness is rarely found below the rim of the hat. Again the condition seems to be more prevalent in the classically

shaped oval head (upon which, by the way, the prevailing shape of the stiff hat appears to be modeled), than in the irregular head; owing, perhaps, to the fact that the constricting band is not continuous with the scalp, but lies upon the bumps; thus allowing some circulation of blood to the scalp and air to the hat chamber.

Owing to the superficiality of the temporal vessels and the custom of cropping the hair short in that region, the pressure of the hat band is more marked there, and possibly accounts for the baldness beginning there, and continuing back towards the crown.

Deliberating upon these probable causes, the writer has considered the possibility of preventing, to some extent, this often distressing condition, by the application to the hat band of a series (say 4 or 5) devices described below; the object being to prevent relatively absolute pressure upon the blood supply, and at the same time to permit free ingress and egress of air to and from the hat chamber.

These devices, consist of cork or other resilient material upon a backing of some metal; the whole to be applied at intervals to the hat band in juxtaposition to the head; thereby, confining the pressure to certain parts or sections, leaving the intervening space free for the purposes aforementioned.

Upon application, they will bear the following relations:

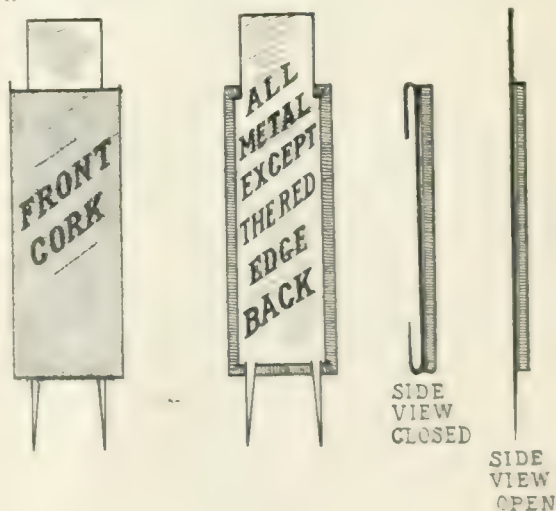


FIG. 1.

The advantages of such devices are that they can be applied to any hat, and can be placed in position where they will least impinge upon the main arterial supply of the scalp.

Some anatomical knowledge upon the part of the hatter will enable him to place them in the most advantageous position for the accomplishment of the best results.

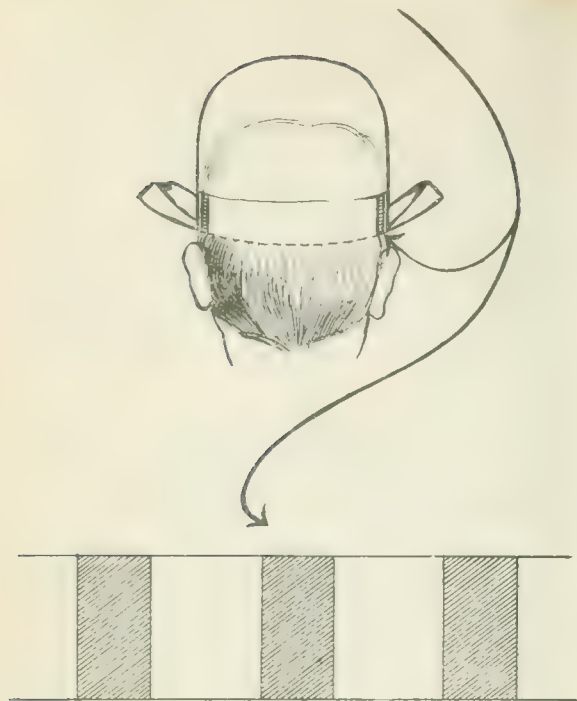


FIG. 2

Of course it will be necessary for the hat to be slightly larger than usually worn, but not more so than for the application of the ordinary corrugated sweat band.

TREATMENT OF TYPHOID FEVER WITH CASTOR OIL.*

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Last year I reported to this association thirty-two cases of typhoid fever which I had treated with castor oil. I have now to add to that report forty-seven other cases which I and my associate, Dr. H. H. Howard, have treated in the same way since that report was written. We have taken them just as they came in our regular practice, and had Widal's test made in all the cases where the diagnosis was at all doubtful. We put each patient on the treatment as soon as we determined it was probably typhoid fever. Some of the patients had the best nursing, others had none at all, some were in well to do families and some were among the very poor, careless and ignorant. These cases have added strength to my conviction of the efficacy of the treatment, and are offered to support the position taken in my previous paper.

Before undertaking to present these cases, let us consider the necessity of purgation in typhoid fever.

Typhoid fever is an acute, self-limited, contagious disease, characterized by inflammation, necrosis, and ulceration of the Peyer's patches and the solitary glands of the small and large intestines, and due to the typhoid bacillus. In typhoid fever the bowels contain food which is not nearly so well digested as in health; and which, for this reason, readily ferments, producing various toxic products; likewise, the special toxins of the typhoid bacilli are present. These are absorbed into the system and cause most, if not all, the elevation of temperature. Ordinarily there is constipation for a few days followed by diarrhoea, which is an eliminative effort on the part of Nature; and as a rule diarrhoea continues until convalescence is established. But if any cases are taken in the first week, when the bowels are constipated, and they are cleared out often enough with castor oil, or with any non-irritating purgative, diarrhoea will be prevented. If this is kept up, and especially with castor oil, the patient will have no diarrhoea at all; and if the oil is stopped any time, there will be a longer or shorter period of constipation thereafter. Almost any case of diarrhoea in typhoid fever will give way after a few days to any non-irritating purgative, especially to castor oil; and the purgative being discontinued, there will follow a longer or shorter period of constipation.

Another sometimes extremely important consideration in the treatment of typhoid fever is the control of the temperature. The elevation of the temperature, to a considerable extent, is no doubt due to absorption of poisons generated by the decomposition of undigested food and by the typhoid bacilli. Possibly no physician who has studied the disease at the bedside will take issue with this proposition. The longer the undigested food remains in the bowels, the more aggravated the condition becomes, and the higher the temperature rises. If, therefore, the bowels were cleared out oftener there ought to be fewer poisons generated and absorbed.

The superiority of castor oil as a purgative in typhoid fever consists in its mode of action. The saline purgatives are absorbed into the system, which is already overloaded with abnormal bodies, and these being further absorbed, their elimination puts additional work on the liver, skin, and kidneys. Castor oil, on the contrary, goes through the bowels unchanged and unabsorbed. I have recovered from the stools two thirds of the dose, and I firmly believe that nine tenths of the dose can be recovered. It therefore damages the patient less than any other purgative.

My objection to the use of antiseptics in ty-

*Read before Mississippi Valley Medical Association, October 8, 1903.

phoid fever is the old one; namely, that any anti-septic sufficiently effective to prevent or to materially retard fermentation and germ life will also prevent or greatly retard digestion.

I have already stated the thorough diagnosis of all the doubtful cases, Widal's test being made, and will now summarize the results in seventy-nine cases. In the majority of these cases no medicine except castor oil was given. All were given an abundance of pure drinking water. The diet was strictly liquid, generally milk, and sometimes predigested food. No deaths occurred. There occurred three hæmorrhages. The shortest duration of fever was twelve days; the longest, a case which relapsed, forty-four days. The average duration of fever was sixteen and three fourth days, counting from the first day of the headache, malaise, etc., until the temperature reached normal. After that, in most of the cases, there was an evening rise for one or two, and sometimes for five or six, days; which is the usual course under any treatment. The fact that no deaths occurred out of seventy-nine cases may, indeed, count for very little, yet it does, beyond question, count for something. We could hardly imagine a treatment which would reduce the mortality to none.

There were only four relapses. This was attributable, in part, to the continuation of the diet during convalescence; but it was attributable, more than anything else, to the fact that the castor oil was continued until long after the fever subsided, and the patient was safe from the likelihood of a relapse. As a rule, during convalescence from typhoid fever, there is more or less constipation, which is prevented by the continued use of the oil. There occurred, practically, no complications. The fact that the poisons were eliminated nearly as fast as generated, and that the patients were not doctored to death with useless and harmful drugs, is probably the reason there were no more complications, and that the cases generally ran a mild course. In almost every case the temperature was below one hundred and two degrees within two or three days after the treatment was begun. In some cases the fever fell faster and went lower than it did in others. I have seen it fall from the effects of one dose of oil three degrees in five hours, and again I have seen a single dose fail to reduce it at all; but I have always found that the temperature would promptly rise if the oil was withdrawn.

The method I think best is to begin promptly with a dose of pure castor oil every twelve hours, regardless of the stage of the disease. The dose should be so regulated as to cause one or two ac-

tions, and will vary from one to eight drachms, depending upon the patient, the stage of the disease and the condition of the bowels. This should be continued through all stages of the disease.

DELAYED SECONDARY HÆMORRHAGE FOLLOWING AMYGDALECTOMY: REPORT OF TWO CASES.*

By RICHMOND McKINNEY, M. D.,

MEMPHIS,

LARYNGOLOGIST TO EAST TENNESSEAN HOSPITAL.

Considering the very great number of times that the operation of amygdalectomy is performed every day throughout the civilized world, and the extreme vascularity of the faucial tonsils, together with their intimate relationship to important blood vessels, it is to be remarked upon that so few cases of severe hæmorrhage at the time of removal of the tonsils are reported, and secondary hæmorrhage in corresponding ratio may be said to be a very rare occurrence. My experience, therefore, may be regarded as very unusual, when I state that within a period of two weeks of each other, I have recently had two cases of severe hæmorrhage following amygdalectomy, both of which presented features in common which I shall bring out in their histories.

CASE I.—D. M. R., aged ten years, residence Memphis, was brought to me on Friday afternoon, September 18th, for removal of hypertrophied faucial tonsils. The patient had a history of having undergone several attacks of lacunar amygdalitis during his life, in fact, having had two or three attacks of this disease every winter. He had just recovered from a very severe attack of this nature. Examination revealed both faucial tonsils considerably hypertrophied.

With a Mackenzie amygdalotome, without anæsthesia of any kind, the diseased organs were excised, and the slight bleeding which followed subsided completely in two or three minutes. The child returned home, with instructions to use a gargle of warm water containing soda. Nothing more was heard from him until on the morning of the 22d, four days later, when his mother telephoned me that the boy, although doing nicely ever since the operation, having been out playing every day as usual, had bled from his right tonsil wound excessively during the previous night. In fact, she stated that the hæmorrhage had been so severe that his night shirt, pillow cover, and bed clothes were saturated with blood. The boy felt well enough, however, to go to school that morning, and got away before I could instruct his mother to keep him at home and quiet. He came to my office for me to examine his throat that afternoon, but I could discover no oozing localities about the tonsil wound, although there were several angry looking inflamed spots. As a precautionary measure I touched the surface of the tonsil with Monsel's solution. The mother was instructed to use ice in the event of the tonsil bleeding

* Reported to the Memphis and Shelby County Medical Society, October 6, 1903.

again. The next morning, the 23d, the boy's mother telephoned me that he had practically the same experience as the previous night, although the hæmorrhage was not so severe, and was readily controlled with ice. Since that he has had no further trouble.

CASE II.—J. P., aged seven years, residence Memphis, had been having attacks of lacunar amygdalitis all his life. Recently he went through a very severe attack, at which time he was first brought to me, and the faucial tonsils, when then seen, were markedly hypertrophied. Amygdalectomy being advised, his mother made an appointment with me to have the tonsils removed under chloroform, at their residence. On Friday afternoon, October 2, 1903, chloroform was administered by the family physician, Dr. R. S. Stanley. The boy took the anæsthetic badly; it required far more than the ordinary amount to destroy the reflexes sufficiently to permit performance of the operation. When the patient's mouth was opened with the gag, the tonsils appeared much smaller than when first seen by me, but were thoroughly diseased. Several ineffectual attempts to seize the right tonsil with the Mackenzie amygdalotome were made, and finally I had to resort to scissors and forceps, since I could secure no hold with the amygdalotome. With considerable hæmorrhage a small portion of the tonsil was removed, but further procedure of this nature was prevented by the boy ceasing to breathe, going into complete collapse. By prompt action we succeeded in restoring respiration. The hæmorrhage was frightful, the blood being mixed with a large quantity of lemonade, which, contrary to instructions, had been given to the boy just before we arrived. This bleeding ceased after several minutes, but the little patient was cyanosed to a dangerous degree, and it was some time before the color began to return to his lips. The next day he felt sufficiently strong to take a drive, and on Sunday, the second day following the operation, he played in the yard all day. He complained of not feeling well on Monday morning, but after school time got up and went out, apparently feeling quite well. That night, at 11 o'clock, his father telephoned me that the boy's throat was bleeding a great deal, and that he was also vomiting clotted blood in considerable quantities. This hæmorrhage was controlled with ice, and ceased a few minutes after I was telephoned. The next morning (6th) the patient was seen by me. He had no fever, was bright, but rather pale. His parents told me he must have vomited a pint or more of dark blood the previous evening. Examination of his throat showed nothing other than a dull red tonsil stump, with no apparent oozing at this time. The child vomited two or three times following this examination, the vomitus being largely composed of dark, bloody material. Monsel's solution was applied to the stump. Since that time he has no further trouble.

It will be noted that both of these cases were operated on on Friday, at about the same time of day (between two and three o'clock in the afternoon), and that the hæmorrhage in each case came on during the following Monday night. I am con-

vinced that in neither of these cases was the tonsillar branch of the facial artery injured, for the bleeding in both cases was oozing in character and venous. The literature of secondary hæmorrhage following amygdalectomy is not (a fact on which every operator may congratulate himself) very voluminous, and I trust that I shall not again be called upon to amplify it.

LYCEUM BUILDING.

Therapeutical Notes.

Ergotine in Gonorrhœa.—The *Revue médicale du Canada* for November 18th, citing the *Journal de médecine de Bordeaux*, says that Roicki considers ergotine an excellent means of rapidly curing a chronic gonorrhœa. He administers it simultaneously internally in pills, and by urethral injections of the following formula:

- R Ergotine 0.30 gramme (4½ grains);
Distilled water..... 300.00 grammes (10 ounces).
M. Several injections daily.

Hereditary Syphilis.—Filatov, in the *Clinical Review* for December, 1903, advises primarily treatment of the parents, but if too late, baths with sublimate should be given the child, or the following:

- R Calomel 1 grain;
Saccharrated iron carbonate..... 7 grains;
Sugar 1 drachm.
M. Divide into twelve powders; one powder twice daily.

In cases of relapse in older children:

- R Mercury perchloride..... 1 grain;
Distilled water..... 3 ounces;
Simple syrup..... 2½ drachms.
M. Teaspoonful once daily, after a meal.

Friction is not well borne by infants, but in older children, mercurial ointment, 5 grains, may be rubbed in energetically when urgent symptoms declare themselves, such as iritis, laryngeal stenosis, or cerebral manifestations.

In cases of syphilitic snuffles or affections of the throat or mouth, the mucous membrane should be pencilled once or twice daily with:

- R Mercury perchloride..... 1 grain;
Distilled water..... 1 to 2 ounces.
M. Local application.

Condylomata and anal ulcers may be powdered with calomel. Large condylomata should be washed with chlorine water previously. The calomel soon becomes converted into the sublimate, which thus acts in the nascent state.

Iron should alternate with mercurial treatment every few weeks to counteract anæmia.

Pruritus of the Aged.—E. T. Blake (*Eczema and Its Congeners*, 1902) considers this affection "a terribly hard nut to crack." He offers, however, "one new suggestion, in the external use of thyreoidin," which he says, influences enormously for good the nutrition of the skin. After a thorough soaking in a hot bath, just before the last

meal, he recommends that the body be well rubbed with

- R Saturated solution of pilocarpine nitrate.....5 parts;
Solution of thyreoidin.....30 parts;
Lanolin100 parts;
Cold cream500 parts.

The thyreoidin to be well incorporated with the lanolin, the pilocarpine added, and finally the cold cream. This formula can be varied by adding extract of aconite, belladonna, or opium, in place of the pilocarpine, which is rather costly. A dose of five to ten grains of thyreoidin internally after breakfast is also advised.

Vaginismus.—*Journal médical de Paris*, cited by *Revue médicale*, for March 25, 1903, gives Pozzi's treatment, which besides bran baths, and potassium bromide internally, prescribes the following suppository to be used morning and evening:

- R Cocaine hydrochloride.....25 centigrammes
($\frac{3}{4}$ grains)
Cacao butter.....4 grammes (1 drachm).
M. One suppository.

Or, the following may be substituted:

- R Extract of rhatany of each.....2 grammes
Cacao butter (30 grains).
M. One suppository.

A surgical operation may be performed to enlarge the vulvar orifice and draw in the vaginal mucous membrane so that the area of reflexes is not subject to friction.

Palmar and Plantar Hyperidrosis.—M. G. Lyon (*Revue de thérapeutique médico-chirurgicale*, quoted by *Nord médical* for November 1, 1903) recommends the following:

- a R Decoction of walnut leaves.....1,000 grammes;
($33\frac{1}{3}$ ounces).
Alum or borax.....10 grammes ($\frac{1}{2}$ ounce).
b R Potassium permanganate.....25 centigrammes
($\frac{3}{4}$ grains).
Water1,000 grammes ($33\frac{1}{3}$ ounces).
c R Tincture of benzoin.....10 grammes (150 minims);
Formaldehyde15 grammes (225 minims);
Water1,000 grammes ($33\frac{1}{3}$ ounces).

The feet or hands should be bathed in any of the foregoing. If, instead of being cold and cyanotic, the members are warm, cold water should be used and the following applications used subsequently:

- a R Ichthyol } of each25 grammes (6 $\frac{1}{4}$ drachms);
Lanolin }
Water15 grammes (3 $\frac{3}{4}$ drachms).
b R Naphthol5 grammes (75 grains);
Glycerin10 grammes (150 minims);
Alcohol100 grammes (3 $\frac{1}{3}$ ounces).

M. Use as a lotion twice daily.

Good results are obtained, too, from:

- R Quinine sulphate.....5 grammes (75 grains);
Alcohol, 60 per cent.....100 grammes (3 $\frac{1}{3}$ ounces).

Or:

- R Essence of bergamot.....20 drops;
Iron perchloride.....30 grammes (1 ounce);
Glycerin10 grammes (2 $\frac{1}{2}$ drachms).

M. Lotion.

Besides baths and lotions, powders may be used, the following being a good example:

- R Potassium permanganate....2 grammes (30 grains);
Salicylic acid.....5 grammes (75 grains);
Bismuth subnitrate.....30 grammes (1 ounce);
Talc60 grammes (2 ounces).
M. Dusting powder.

Inside the shoes may be placed filter paper soaked in the following:

- R Thymol30 centigrammes ($\frac{1}{2}$ grains);
Potassium permanganate....1 gramme (15 grains);
Distilled water.....100 grammes (3 $\frac{1}{3}$ ounces).
M. Foot application.

Cosmetics to Improve the Complexion.—*Nord médical*, for November 1, 1903, gives several formulæ, said to be valuable in improving the complexion, which may prove useful to practitioners in districts remote from "beauty parlors."

- R Liquefied oil of cacao.....5 parts;
Castor oil30 parts;
Oil of bergamot.....1 part;
Eau de cologne.....20 parts.
M. Cosmetic.

- R Spermaceti45 centigrammes (6 $\frac{3}{4}$ grains);
Paraffin35 centigrammes (5 $\frac{1}{4}$ grains);
Oil of almonds.....75 centigrammes (11 $\frac{1}{4}$ grains);
Rose water } of each.70 centigrammes (10 $\frac{1}{2}$ grains);
Glycerin }
Oil of roses.....1 centigramme ($\frac{1}{100}$ grain).
M. Apply nightly.

- R Oil of roses.....20 drops.
Lanolin85 parts,
Cacao butter.....25 parts.
M. Use nightly.

- R Sweet almonds.....100 parts,
Bitter almonds.....20 parts;
Rice powder.....120 parts;
Borax } of each.....5 parts;
Powdered iris }
Oil of bergamot.....1 drop;
Oil of lemon.....3 drops.
M. For use at night.

Diseases of the Scalp.—*Nord médical*, for November 1, 1903, among several ointments advised for dandruff, etc., gives the following:

- R Zinc oxide.....7 grammes (105 grains);
Petrolatum }
Lanolin } of each...10 grammes ($\frac{1}{2}$ ounce).
Distilled water }

M. To be rubbed thoroughly into the scalp at night.

If the dandruff is very persistent, pyrogallie acid, 1 to 30, may be added, or chrysophanic acid, 1 to 100, with one third of an ounce of oil of cade to replace the water in the foregoing prescription.

Administration of Oil of Chaulmoogra.—According to *Presse médicale*, for November 14, 1903, H. Danlos has recommended highly to the *Société de thérapeutique*, the following method of administering this oil as an enema: Mix, warm, 75 grammes (2 $\frac{1}{2}$ ounces) of milk with 12 grammes (3 drachms) of the oil; by whipping with a fork, an emulsion is easily made. This enema should be administered after a movement of the bowels and the patient should remain in the recumbent posture for two or three hours. There is no pain, and an examination of the stools on the following day shows an apparent absorption of the enema as there is no trace of either milk or oil.

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Editor. Associate Editor.

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NEW YORK, SATURDAY, DECEMBER 26, 1903.

THE ILLINOIS STATE BOARD OF HEALTH'S REPORT ON MEDICAL EDUCATION.

For several years past the Illinois State Board of Health has, in addition to its prescribed functions, done excellent service—unparalleled elsewhere, so far as we recall—by keeping the profession constantly informed concerning the various State requirements for the license to practise and concerning the educational standards as regards medicine in the different States. This it has done by the frequent issue of pamphlets and volumes largely devoted to these subjects. The work, of course, has fallen mainly on the board's secretary. It was begun by the late Dr. John H. Rauch, and it has been worthily continued by the present secretary, Dr. James A. Egan. The appreciation with which Dr. Egan's labors have met is attested by the fact that the board has recently found it necessary to issue a second edition of its *Report on Medical Education and Official Register of Legally Qualified Physicians*, dated 1903.

The volume gives the text of various Illinois laws governing the practice of medicine in the State, together with a number of judicial decisions bearing upon various legal aspects of medical practice; satisfactory summaries of similar laws in force in the other States and in our out-

lying possessions; information as to the medical schools of Illinois; a list of the medical societies of Illinois and their officers; a schedule of reputable medical colleges in the United States; and an official register of the legally qualified physicians of Illinois.

There is to be noted in Dr. Egan's report the expression of a desire for reasonable reciprocity between States in the matter of the license to practise, and in particular Dr. Egan wonders why Pennsylvania has thus far declined to reciprocate with Illinois. We do not feel qualified to discuss this special aspect of the matter, but we will say that we sympathize with the general movement in favor of reciprocity. Extensive reciprocity will come in time, we have no doubt, but it can hardly be hastened to advantage save by the march of events over which individuals and boards have no particular influence. The conditions in the various States are too diverse for general reciprocity to be speedily established.

CHILD LIFE AND TUBERCULOUS DISEASE.

Among the agencies that have now fortunately been set to work to educate the people concerning the multitudinous aspects of the tuberculosis problem there are few, if any, we venture to say, that are better calculated to serve the purpose than the pamphlets published by the Committee on the Prevention of Tuberculosis of the Charity Organization Society of the City of New York. The seventh of the series, by Dr. Abraham Jacobi, is entitled *Tuberculosis and Children*. Mindful that he is writing for untrained readers, Dr. Jacobi does not attempt to deal with his subject systematically, but gives the public useful and interesting information concerning tuberculous disease in children, ever and anon pointing out the bearing of a particular fact upon the spread of infantile tuberculosis. But he manages to cover the essentials.

Dr. Jacobi's vast experience enables him to throw some interesting light on the question of occasional recovery from tuberculous meningitis. He says that about forty years ago he diagnosticated that disease in a boy three years old. "He got well; that is he did not die. For some years there were no particular complaints. But the child's temper was changed, he was bad, became more irritable, vehement, vio-

lent, and sometimes dangerous. He was a slow learner except of the use of his muscle. He remained wayward, with sudden outbreaks of malice, irresponsible, unreliable. When he reached his twentieth year he also reached the insane asylum, where he still is to remain as long as he lives." The lesson is that, since there is no escape from this form of the disease when it is established, we must look about for preventives.

Dr. Jacobi writes most instructively of the "hardening process." There can be no routine process, he says, applicable to all children alike, but in most instances, after the tenderest infancy, methodical cold bathing followed by friction is no tax upon the child and certainly has a powerful tendency to heighten the vital powers of resistance. Concerning the overboiling of milk he says: "Some people pride themselves on the thoroughness with which they recommend or practise boiling. But, then, it is not called boiling, it is called sterilization, and a foreign word of five syllables is so ornamental, don't you know? Proudly an affectionate mother tells you she sterilizes the milk her baby is to take for thirty, forty, sixty minutes. She would not do less for her baby, not she. But she should know, or learn, that what is saved of milk after forty minutes' boiling is no longer a healthy milk and not fit to keep her baby in health."

Dr. Jacobi recognizes the danger of the milk of tuberculous cows, and calls attention to the delicacy of the gastrointestinal mucous membrane in children and the frequency of lesions of that structure, whereby an opportunity for direct infection is afforded. We cannot refrain from citing this amusing anecdote illustrative of the tendency of some people to make light of children's diseases: "Some thirty years ago," says Dr. Jacobi, "a well meaning man with a large family said to me: 'Doctor, you must now and then make a call, I do not mean to bother you much. When there are some such trifles as sick children, I shall not send, but take the doctor around the corner; but you must promise to come and see us when we older people are sick.' I said: 'I shall make a bargain with you, I permit you to send for me when the children are sick. When you are sick yourself, just send for the doctor 'round the corner, or you may "cry for Castoria."'"

HYPNOTISM?

Gabrielle Bompard, the accomplice of Eyraud in the sensational murder of a bailiff in Paris, some years ago, has been released from penal servitude to which she was sentenced when her accomplice went to the guillotine. Her counsel, anxious apparently to prove her complete innocence, arranged a truly dramatic performance with his client and Professor Liégeois as the players. In the presence of a number of stenographers and photographers the woman was hypnotized by the professor, and gave an extraordinary representation of her supposed struggles to resist a similar hypnotic spell by Eyraud, her gradual enforced compliance with his wishes, and her subsequent assistance in the murder. The scene, we learn, was weird and startling. The woman struggled, shrieked and groaned, pleaded and coaxed, and finally gave a representation of sitting up all night with the corpse, and a flight in the morning to America.

It is hard to convict a woman of a crime in France. Can we wonder that this creature was acquitted in a French court, when this new audience of disinterested spectators was so thoroughly imposed upon? Hypnotism is a purely subjective phenomenon, an effect on the imagination of powerful suggestion, which, powerful as it may be, cannot be strong enough to force crime upon an unwilling subject. Had the woman said she had been frightened into compliance, the statement might be believed, but that she unconsciously went through any such scene as that above described not once, but twice, is incredible. The whole affair suggests the stage too strongly; the woman gave what she thought was a representation of how a woman would behave under the influence of what hypnotism is supposed by the ignorant to be, and an artistic representation undoubtedly it was. Criminals do not, however, commit crimes in this centre-of-the-stage, turn-the-limelight-on-me manner. Shrieks, groans, gestures, and appeals to the gallery belong solely to stage crime and are not used by the professional, who must needs act quickly and quietly.

We are inclined to think that the counsel knew what he was about, and that Gabrielle, if not care-

fully rehearsed in her part, which is likely, possesses a crude dramatic instinct not uncommon in the hysterical subject. The professor, we fear, was an unconscious dupe, as his unfortunate confrère was many years ago in his experiments on the effects of drugs by mere suggestion. Charcot, it will be remembered, thought he had made a discovery of stupendous importance, only to learn through Ernest Hart, then editor of the *British Medical Journal*, that he had been tricked by a gang of professional "subjects," who had worked as supposed victims of hypnotism with all the travelling hypnotic fakirs in the country fairs of France. These supposed subjects are to be found in this country. They have learned to act after a certain manner and even to exhibit no signs of pain when pricked with needles through the cheek or tongue. Dupes who have given large sums of money to "learn" hypnotism, have been induced by these charlatans and their employers to believe they had acquired a power of similarly influencing anyone whom they desired, only to discover their error when derision on the part of their friends greeted their mysterious if not ridiculous manœuvres.

Verily the people love to be humbugged, and the French seem to imperil their reputation as a nation hard to deceive, whenever the deception is sufficiently equipped with dramatic paraphernalia.

HERBERT SPENCER.

It has been the destiny of but few men to be able so profoundly to affect the destinies of the race by their thoughts as did the late Herbert Spencer. So vast is the scope of his *Synthetic Philosophy* that it touches at a multitude of points every subject of deep interest to mankind. While but few have taken the pains to understand it as a whole, many have been impressed with its importance where it deals with subjects familiar to them. For over thirty years it has been the polarizing force of thought in practically every department of life. Few, perhaps, may be willing to admit its overmastering sway, but all must acknowledge that it has challenged and compelled deep thought from even those who have sought to subdue its influence. His *Psychology* revolu-

tionized the science of mind, his *Sociology* changed men's views regarding the functions of government, his *First Principles* placed theological controversy on a new basis, and his *Biology* laid the foundation for a rational conception of life, health, and disease.

Being a layman, he was naturally not in the closest of touch with the medical thought of his times, but his ideas of the scientific position of medical science and its true function were far ahead of those of many who bear the degree of doctor of medicine. While so prominent a medical man as Professor H. C. Bastian, of University College, was leading a host of his fellow practitioners in opposition to Pasteur and Lister and the germ theory of disease, Spencer came out boldly in defense of the principles of the latter. He was then denounced as having gone back on his own doctrine of evolution, because he refused to support the heresy of spontaneous generation. To him the evolution of life was a far reaching, slow process of successive adaptations and adjustments, and, therefore, he declared, "the very conception of spontaneity is wholly incongruous with the conception of evolution." In his mind's eye he saw such a series of minute selective changes in the very lowliest of living things as Sir Patrick Manson saw in the parasite discovered by Laveran in malarial blood, when he inspired Dr. Ronald Ross to the classical researches that terminated so brilliantly. With a life history filled with such marvelous adaptations there could be no room for spontaneous generation.

When multitudes of medical men were steeped in the belief in specifics, he advocated scientific research into the ætiology of disease in order to find causes that could be removed. Where such causes were unknown he maintained that the wisest policy to pursue, as a rule, was to depend as much as possible upon the *vis medicatrix nature*. To politicians and law makers he advocated the same principle of *laissez-faire*, except where they could see causes leading to the dethronement of justice, when it was their duty to act and remove the same. Regarding the doctors of his time, he naively remarked that "in proportion as the judgment is most cultivated, there is the least yielding to the 'must-do-something' impulse." In an-

swering the question as to what kind of knowledge was of most worth, he replied that "for direct self-preservation or the maintenance of life and health, the all important knowledge is science." In his far reaching conceptions concerning bodily readjustments he saw, and pointed out, that every deviation from the physiological balance necessitated numberless readjustments throughout the organism, making disease a far more complicated thing than it was generally held to be. In his study of heredity he pointed out the fact, then but little appreciated, that constitutional weaknesses, rather than true diseases, were the things transmitted. In his work on *Education* he has left us the following pretty piece of medical wisdom: "Perhaps nothing will so much hasten the time when body and mind will both be adequately cared for, as the diffusion of the belief that the preservation of health is a duty. Few seem conscious that there is such a thing as physical morality." His rap at political sanitarians for the unscientific character of their reasoning, and the motives that impel them, should be read in connection with Professor A. Jacobi's trenchant remarks in the same line, as published in the *Transactions of the Congress of American Physicians and Surgeons*, Vol. iii, p. 63.

Of all that Mr. Spencer has written referring to medical subjects, the writer knows of but one article that showed the man as being behind in his knowledge of the best general principles of our science. His last published work contains a chapter on vaccination that does but scant justice to so great a man. The writer can only account for such an article from him on the theory that in his old age he was strongly influenced by his lifelong friend, Alfred Russel Wallace. While the article is in no sense partizan, as are the writings of Wallace, it displays a lack of grasp of the entire subject that is remarkable for Spencer.

R. G. ECCLES.

SUBSCRIBERS' DISCUSSIONS; A CORRECTION.

In our issue of December 12th, an unfortunate typographical error made us announce that the date for closing the discussion on the treatment of nocturnal incontinence of urine was December 18th; January 18th was meant, and competitors' papers will be received until that date.

THE MEDICAL KNOWLEDGE OF THE MIDDLE AGES.

Everything that relates to our enlightenment as to the state of medical knowledge in earlier ages has a certain interest, and possibly a practical value in an indirect way, even though such may not appear on the surface. Among the other matters dealt with in a Flemish tenth or eleventh century illuminated MS. of the Apocalypse, which was sold recently in London for nearly \$5,000, was a tract dealing with medicine and illustrated with full length anatomical figures, etc. It is likely that if anyone had leisure and means to make the search, much hitherto unknown medical material might be discovered among the religious MSS. hidden away in monasteries and other repositories of early learning in Europe. Possibly, even, we might find many of the lost works of physicians eminent in their time, the former existence of which is only known to us at present through quotations or reference by other writers.

THE BEAM IN THEIR OWN EYE.

The physicians of a certain county in Ohio are being subjected to a crusade on the part of the W. C. T. U., which is begging them to stop prescribing alcohol in any form for their patients. We may safely leave that question in the hands of our Ohio brethren, trusting meanwhile that members of the enthusiastic organization in question will also demand that their officers and members refrain from giving testimonials to various quack nostrums, containing from 16 to forty per cent. of the very fluid that excites their disapprobation.

A PROPOSED MEDICAL PRESS EXHIBIT IN CONNECTION WITH THE ST. LOUIS EXPOSITION.

Dr. Charles Wood Fassett, the managing editor of the *Medical Herald*, of St. Joseph, a gentleman long known to the profession as peculiarly devoted to the interests of medical journalism, calls attention in the December number of that journal to the desirability of a complete exhibition of contemporary medical publications in connection with the St. Louis exposition, and solicits the immediate cooperation of editors and publishers of medical journals.

AN ITALIAN JOURNAL IN NEW YORK

There has reached us the first number, dated December, 1903, of *La Gazzetta medica*, a monthly journal published in New York. The number contains eight large double-columned pages of reading matter. It is edited by Dr. Giuseppe Lapenta.

News Items.

Society Meetings for the Coming Week:

MONDAY, December 28th.—Medical Society of the County of New York; Lawrence, Mass., Medical Club (private); Cambridge, Mass., Society for Medical Improvement; Baltimore Medical Association.

TUESDAY, December 29th.—Rome, N. Y., Medical Society; Boston Society of Medical Sciences (private).

WEDNESDAY, December 30th.—Auburn, N. Y., City Medical Association; Berkshire, Mass., District Medical Society (Pittsfield).

FRIDAY, January 1st.—Practitioners' Society of New York (private); Clinical Society of the New York Postgraduate Medical School and Hospital; Baltimore Clinical Society; the Manhattan Clinical Society.

SATURDAY, January 2nd.—Manhattan Medical and Surgical Society, New York (private); Miller's River, Mass., Medical Society.

Change of Address.—Dr. Louis Friedman, to 208 West One Hundred and Twelfth Street.

NEW YORK.

Infectious Diseases in New York:

We are indebted to the Bureau of Records of the Health Department for the following statement of new cases and deaths reported for the two weeks ending December 19, 1903:

	Week end'g Dec. 19.		Week end'g Dec. 12.	
	CASES.	DEATHS.	CASES.	DEATHS.
Measles	566	9	505	6
Diphtheria and croup.....	405	40	428	41
Scarlet fever.....	281	18	249	3
Smallpox	132	..	1	0
Chickenpox .....	..	..	106	0
Tuberculosis	318	144	266	156
Typhoid fever.....	46	13	68	15
Cerebrospinal meningitis..	..	6	..	7
Totals.....	1,748	230	1,624	238

The German Hospital Association of Brooklyn has received the sum of \$4,500 from the benefit performance of opera at the Academy of Music in November.

New Hospital for Eye Diseases.—The building at One Hundred and Eighteenth Street and Pleasant Avenue, a three story brown stone structure intended to supply the needs of ophthalmic patients in the vicinity, is nearly ready for occupancy.

Winter Course of Lectures at Columbia University.—The winter course of lectures at Columbia University, before the Newman Club, was opened December 15th by Dr. John J. Morrissy, of New York. He discoursed on University Education and Citizenship. The attendance was large.

The Medical Society of the County of Kings at the regular monthly meeting on December 15th, nominated the following officers for the ensuing year: President, Dr. John E. Sheppard; vice-presidents, Dr. Calvin F. Barber, Dr. J. W. Fleming, Dr. John C. MacEvitt; secretaries, Dr. James Cole Hancock, Dr. William S. Hubbard; associate secretaries, Dr. William C. Woolsey, Dr. S. J. MacNamara; treasurers, Dr. O. A. Gordon, Dr. Charles Tag; associate treasurers, Dr. Leferts A. McClellan, Dr. John R. Stivers.

The Memorial Hospital, of Brooklyn, has received a bequest of \$5,000 to establish a free bed, by the will of the late George W. Boyd, of Boston, Mass.

Lectures on Alcohol and Opium Inebriety.—Dr. T. D. Crothers, of Hartford, Conn., professor of mental and nervous diseases at the New York School of Clinical Medicine, will deliver a course of four lectures on Inebriety from Alcohol, Opium and other Narcotics, January 5 and 6, 1904, at 4 p. m. and 8 p. m., in the hall of this school, 328 West Forty-second Street, between Eighth and Ninth Avenues, New York city. The public are cordially invited to attend. M. Stern, M. D., Secretary.

Academy of Medicine Election of Officers.—The annual election of officers of the Academy of Medicine took place on the evening of December 17th, with the following result: Dr. W. Gilman Thompson, vice-president; Dr. George L. Peabody, trustee; Dr. John H. Huddleston, recording secretary; Dr. Charles S. Bull, corresponding secretary; Dr. Herman G. Klotz, member of library committee; Dr. Wisner R. Townsend, member of committee on admissions. Dr. Andrew H. Smith held over as president, his term being for two years.

A Daily Medical Journal.—A stock company has been organized for the publication of a journal under the name of the *Daily Medical Journal*, of New York. This name resembles so nearly that of the *New York Medical Journal* as to be likely to give rise to confusion. In fact, we have already received some mail evidently intended for the proposed publication. Upon calling the attention of the projectors of the new periodical to this fact, they have courteously agreed so to change the title, as to avoid any possibility of confusion in the future.

Medical Society of the County of New York.—The next stated meeting of the Medical Society of the County of New York will be held on Monday evening, December 28th, the subject of scientific work being Abdominal Surgery in Young Children. The papers will be as follows: Intussusception and Appendicitis, by Dr. John F. Erdman; Abdominal Incision for Tuberculous Peritonitis, by Dr. Samuel Lloyd; Pyloric Stenosis, by Dr. J. G. W. Greeff; Hernia, by Dr. W. B. DeGarmo. These papers will be discussed by Dr. A. Jacobi, Dr. W. T. Bull, Dr. Floyd M. Crandall, Dr. John Horning, Dr. W. B. Coley, and Dr. Henry D. Chapin.

The Christian A. Herter Lectures.—The Faculty of the University and Bellevue Hospital Medical College announce the first series of Christian A. Herter Lectures to be delivered by W. D. Halliburton, M. D., F. R. S., Professor of Physiology, Kings College, London, on The Biochemistry of Nerve and Muscle.

These lectures will be an extension of a course delivered before the students of the University of London; they will be illustrated by experiments and will contain the results of the lecturer's own physiological and pathological research. The course will begin on Monday, January 4th,

and will continue until Saturday, January 16th, daily, at 4 o'clock, at the Carnegie Laboratory, 338 East Twenty-sixth Street.

Those desiring reserved seats for the course will please communicate with Dr. E. K. Dunham or Dr. Graham Lusk.

The Eastern Medical Society of New York, has engaged permanent quarters, at Clinton Hall, 151-153 Clinton Street, New York. Possession will be taken on or about January 1st. The building will offer the facilities of the modern club house, all of which will be open to the members. A reference library is one of the projected features of the society. At the annual election, held recently, the following officers were elected: President, Dr. Louis J. Ladinski; first vice-president, Dr. D. Robinson; second vice-president, Dr. Tobias Berger; treasurer, Dr. Joseph Barsky; corresponding secretary, Dr. Abraham L. Wolbarst; recording secretary, Dr. A. J. Ronginsky. Dr. Wolf Freudenthal was elected trustee for three years. The chairmen of the new committees are: Committee on Ethics, Dr. A. A. Himowich; Committee on House, Dr. E. K. Browd; Committee on Admission, Dr. John A. Price; Committee on Library, Dr. Charles Rayevsky.

The Late Dr. Davison H. Smith, Dr. J. F. Chauveau, and Dr. David Franklin.—At a meeting of the Medical Association of the Greater City of New York, held December 14th, the following report was received and adopted:

It is with profound regret that your committee record the sudden and untimely death of Dr. Davison Heermance Smith, a member of this association, and the son of its esteemed president. The subject of this sketch was born in New York in June, 1875. After a suitable preparatory course of study he entered the academic department of Columbia University, receiving in due course the degree of B. A. From the medical department of the same university he graduated in 1902, and soon afterward was admitted to the house staff of the New York Postgraduate Hospital. It was in this institution that his death occurred from surgical shock, the result of a painful operation, bravely met, that was undertaken for the relief of mastoiditis. Possessing a genial and generous disposition, he endeared himself to a large circle of friends, and, although only on the threshold of his professional career, he gave promise of early success in a manifest zeal, earnestness of purpose, and faithful regard for duty. On behalf of this association your committee extend to the bereaved family of the deceased assurances of their sorrow and sympathy in this affliction, and, furthermore, recommend that appropriate notice of his death be entered in the minutes of the association, and that a copy be transmitted to his family.

(Signed) J. BLAKE-WHITE,
P. BRYNBERG PORTER,
WILLIAM SEAMAN BAINBRIDGE.

At the same meeting a report of the committee on the death of Dr. Jean F. Chauveau was presented, which was in part as follows:

A few months ago he celebrated the fiftieth anniversary of his entrance to the medical profes-

sion, an occasion which prompted the affectionate congratulations of a large number of friends who had learned to value the kindness and gentleness, as well as the wisdom, with which he always met the requirements of friendship and professional loyalty.

(Signed) A. B. JUDSON,
A. B. BALL,
J. E. SMITH.

Also a report of the committee on the death of Dr. David Franklin, the concluding portion of which was as follows:

Of him it may truly be said, medicine was his religion and his politics, his happiness and his misery. He was of unimpeachable honor and integrity. He had the gentleness of a woman and the nerve of a man of steel. He was keenly observant and of wonderful patience and endurance. He was beloved by his friends and adored by his patients.

Resolved, That this association express by a record on its minutes its deep sense of loss in the death of Dr. Franklin, and that a copy of these resolutions be sent to his family, together with an expression of the association's profound sympathy.

SAMUEL M. BRICKNER,
EDWARD FRIDENBERG.
P. BRYNBERG PORTER, M. D.,
Recording Secretary.

PHILADELPHIA.

Philadelphia Health Report.—*The Report on Contagious Diseases, compared with that of the previous week, is as follows:*

	Week end'g Dec. 19.		Week end'g Dec. 12.	
	CASES.	DEATHS.	CASES.	DEATHS.
Smallpox	90	22	67	16
Diphtheria	97	16	91	21
Scarlet fever	126	9	110	3
Typhoid fever	82	12	88	12
Consumption .....	..	61	..	51
Cerebrospinal fever.....	..	..	..	..

The Butler Typhoid Fever Sufferers have received a gift of \$2,000 from the grand lodge of the Benevolent Protective Order of Elks, and one of \$5,000 from Mr. Andrew Carnegie; about seventy-five thousand dollars will be required.

A Deplorable Accident.—Dr. George Ingle McLeod, Jr., of Philadelphia, fell beneath a train at Ardmore Station last week, the wheels crushing both his feet and necessitating amputation at the ankle. It is reported that the train, due to leave Ardmore, was in the station, when the doctor's foot slipped upon attempting to board the train. He coolly directed those who came to his assistance, and was subsequently taken the Pennsylvania Hospital, where the operation was performed.

Philadelphia's Aid to Butler.—At a special meeting of the citizens' permanent relief committee, held December 15th in Mayor Weaver's office, Philadelphia, reports were received of the conditions at the typhoid fever stricken town of Butler, from Dr. M. S. French, in charge of the city's relief work there, and from William Potter, of the relief committee, who visited the place. Both reports showed that the Philadelphia relief corps was doing good work and that there is no immediate need of sending more money to Butler, although there is

probability that in the near future more will be required. There are fifty-three patients now in the Philadelphia temporary hospital erected in the town.

The Pathological Society of Philadelphia.—At a meeting held on the evening of December 17th, the following was the programme: Exhibition of Rupture of Heart, and Infected Echinococcus Cyst of Liver, by Dr. J. N. Henry; Acid-fast Microorganisms Other Than Tubercle Bacilli in the Sputum, by Dr. Joseph Sailer and Dr. Richards; Intense General Muscular Atrophy Due to Inflammation of the Brain and Cord, by Dr. William G. Spiller; Some Recent Contributions to the Subject of Causation of Cancer, by Dr. Leo Loeb; Demonstration on Cryoscopy, by Dr. H. W. Cattell; Changes in the Central Motor System in Uræmia, by Dr. T. H. Weisenburg. D. J. McCarthy, Secretary, 1342 Pine Street.

Smallpox Continues to Increase in Philadelphia.—The statement made in our preceding issue that the status of an epidemic cannot be accurately estimated by the number of new cases of smallpox reported for a given week, has been amply substantiated by the report of the Philadelphia Health Officer for the week ending December 19th. It had been reported that the epidemic was abating because thirty-two cases less were reported for the week ending December 12th than for the week ending December 5th, at the expiration of which ninety-nine new cases were reported. That there must have been a number of cases in the period of incubation at the time the report for December 12th was issued is demonstrated by the fact that ninety more new cases of smallpox have occurred in Philadelphia during the official week ending December 19th, with twenty-two deaths. Another effort has been made to influence the public to be vaccinated by sending a circular letter to clergymen. With very few exceptions these announcements were read and brought to the attention of the church members. The director of public health and charities has sent out the following circular letter to the physicians of Philadelphia: "The conditions in Philadelphia are such as to threaten a grave epidemic of smallpox. Can you help in the preventive work, by urging upon your patients and all the members of their households immediate vaccination of all unvaccinated persons, of all children over twelve who have been vaccinated successfully in infancy, of all adults who have not been vaccinated successfully within the last five years?"

GENERAL

The Infants' Summer Hospital, of Rochester, N. Y., has received a bequest of \$1,000 by the will of the late George Moore.

The Nursery and Child's Hospital, of Baltimore, Md., has received a bequest of \$1,000 by the will of the late Mary C. Bailey.

The Fayette County, Ky., Medical Society met in Lexington on December 16th and elected the following officers: President, Dr. N. L. Bosworth; vice-president, Dr. N. L. Simmons; treasurer, Dr. J. J. Wilson; secretary, Dr. D. J. Healey.

The Baltimore University Hospital has leased a large dwelling house at 7 South Broadway, which it will convert into a hospital annex.

The Buffalo Steel Plant Will Erect a Three Story Hospital, labor bureau, and morgue, at a cost of \$12,000, on the Hamburg Turnpike, near the Ridge Road, Buffalo.

The Baltimore Medical College and the Baltimore law school will henceforward occupy the same building, and a consolidation of the two institutions in the near future is looked forward to. Baltimore Medical College will soon have a dormitory conducted under the auspices of the Y. M. C. A.

The Indiana State Board of Medical Registration has decided that all applicants for examination for the State license must, in the future, send their photographs endorsed with their signatures certified by a notary public. The idea is probably to prevent impersonation at the examination.

Statement of Mortality in Chicago, Ill., for the Week Ending December 19th, 1903, compared with the preceding week, and with the corresponding week of 1902. Death rates computed on estimated mid-year populations of 1,885,000 for 1903, and of 1,820,000 for 1902:

	Dec. 19, 1903.	Dec. 12, 1903.	Dec. 20, 1902.
Total deaths, all causes.....	550	489	628
Principal causes of death—			
Acute intestinal diseases.....	20	20	31
Apoplexy.....	15	15	10
Bright's disease.....	40	36	44
Bronchitis.....	21	22	30
Consumption.....	53	48	55
Cancer.....	21	11	21
Convulsions.....	18	10	13
Diphtheria.....	15	11	15
Heart diseases.....	43	39	41
Influenza.....	3	3	2
Measles.....	0	3	1
Nervous diseases.....	33	20	28
Pneumonia.....	95	96	106
Scarlet fever.....	7	4	5
Suicide.....	11	11	9
Typhoid fever.....	11	7	35
Violence (other than suicide).....	40	25	61
Whooping cough.....	1	1	5

The influence of the weather conditions of the last three weeks or so is already being reflected in the bills of mortality. The death rate for the week is 12.5 per cent. higher than that of the previous week and very nearly as high as the average December rate of the previous ten years. An analysis of the figures in the statement of mortality indicates clearly that the weather and exposure to it at football games, during the street car strike, in Christmas shopping, etc., is mainly responsible for the increase. Thus, there is a 22 per cent. increase in the deaths among the aged—those over sixty years; deaths from the chronic diseases show increases of 10 per cent. each for consumption and heart diseases, of 11 per cent. for Bright's disease, 65 per cent. for diseases of the nervous system and 90 per cent. for cancer.

The death rate may be expected to increase during the remainder of the month and those suffering from common colds, catarrhs and similar slight affections of the respiratory system—all of which are almost epidemically prevalent—should exercise more care to prevent the development of amygdalitis, consumption and pneumonia. Better secure medical attention now than later on in a sick bed.

With of Current Literature.

BERLINER KLINISCHE WOCHENSCHRIFT

November 16, 1903.

1. Prevention of Dystocia After Vaginal Fixation (*To be concluded*). By A. DÜHRSSSEN.
2. Dietetic Bromide Treatment of Epilepsy, By R. MEYER.
3. Myasthenic Paralysis, By L. MOHR.
4. Preventive Treatment of Syphilitic Primary Lesion, By E. HOLLÄNDER.
5. Sanosin in* the Treatment of Phthisis (*To be concluded*). By M. BEHR.
6. Urticarial Œdema, By B. LÖMENHEIM.
7. A New Circulatory Theory, By O. ROSENBACH.

1. **Prevention of Dystocia.**—Dührssen says that a vaginal fixation, properly performed, consists in attaching the anterior wall of the uterus by a single silk suture to the vaginal wall, the suture to be removed in six weeks. This provides the best position for the uterus and, by its favorable influence upon the circulation in the organ, gradually causes the chronic metritis, that is so often formed in retropositions of the uterus, to subside. In forty-nine cases but one aborted, and only two out of seventy-two births in his cases gave any difficulty in cervical dilatation. If the uterus is anchored high with but a single suture, and the peritoneal opening carefully closed, Dührssen says that the position of the uterus will be permanently secured and no dystocia will result.

2. **Dietetic Treatment of Epilepsy.**—Meyer remarks that the verdict of authors as to the efficiency of the withdrawal of salt from the diet of epileptics, to enhance the action of the bromides, varies considerably, but in the main is favorable. He reports four cases in which he withdrew meat from the diet, but gave considerable milk, and bread which had sodium bromide baked in it. He also allowed eggs and fruits. The attacks, compared with the former ones, were fewer and milder. Patients do not take kindly to the treatment and the author believes, nevertheless, that the salt-free treatment is of value, even though the attacks return after its cessation.

3. **Myasthenic Paralysis.**—Mohr reports a case in a man of thirty-seven years of age and states that, in his belief, the condition is due to an autointoxication. The physical signs were a primary enlargement of the spleen with hæmorrhagic diathesis, combined with hepatic atrophy, icterus, and anæmia. Diplopia, ptosis, and an involvement of the bulbar nerves were noted, and dysarthria appeared later. The autopsy of the brain and spinal cord was absolute negative of result.

DEUTSCHE MEDIZINISCHE WOCHENSCHRIFT.

November 12, 1903.

1. The Œtiology of Dysentery, By JÜERGENS.
2. Pustular Typhoid Roseola with Bacteriological Examination, By E. BIRNBAUM.
3. Asepsis in Catheterization and Cystoscopy, By L. CASPER.
4. Replacing an Entire Radial Diaphysis with Ivory, By K. VOGEL.

5. Œtiology of Prostatitis, By W. LIEPMANN.
6. Prostatitis No. 5, By E. O. Z.
7. Prostatitis of Infancy, By I. L.
8. Prophylaxis of a Malaria Epidemic with Quinine, By P. C. KORTEW.

1. **Œtiology of Dysentery.**—Juergens has made bacteriological examination in an epidemic of genuine dysentery in a barracks. In eighteen out of twenty-six cases, he was able to isolate an organism similar to, but not identical with, Kruse's dysentery bacillus. On the ground of these results he believes different dysenteries may present clinically the same picture while they rest upon different bacteriological bases.

2. **Typhoid Reseola.**—Birnbaum reports the cases of three children with typhoid fever, who developed reseolar spots which terminated in yellowish vesicles. In two of the cases, diplococci were found in the purulent contents, while in the other no bacteria were demonstrable.

3. **Aseptic Catheterization.**—Casper goes into detail on this important topic. Metal catheters are to be boiled in water, soft catheters in a super-saturated solution of ammonium sulphate, in which they must not be kept, however, lest they become soft and rough. A better method for rubber catheters is to wrap each one up separately in linen cloths and subject them to steam heat for two hours. Casper cleans his cytoscope by rubbing it three times, for one minute each, with tincture of green soap and preserving it for use in the same. As a lubricant for catheters he recommends this formula:

Oxycyanate of mercury.....	1 part,
Glycerin	{ of each.....160 parts.
Tragacanth	
Water	

For the prophylactic washing of the healthy bladder, he recommends 100 to 200 ccm. of a one to 1,000 solution of silver nitrate.

7. **Prevention of Iodism.**—Lesser says that iodism results from the sudden overwhelming of the system by large quantities of alkaline iodides. The mucous membranes secrete this substance, and its sudden appearance in the body results in a catarrhal condition of the mucous surfaces. The prevention of iodism lies: (1) in the administration of iodine salts in mucilaginous substances, as these prevent their rapid distribution in the system. (2) In dividing the daily dose into many small doses. (3) In administering the drug by enema. (4) In substituting other drugs, such as iodide proteids and iodide fats for the alkaline iodine salts. (5) By iodipine injections.

MÜNCHENER MEDIZINISCHE WOCHENSCHRIFT

November 17, 1903.

1. Diagnosis of Kidney Function, By R. GIEBEL.
2. Gynecological Narcosis with Special Reference to Witzel's Drop Method of Ether Administration, By H. FUCHS.
3. Modern Ether Narcosis, By C. HOFMANN.
4. Ether Combined with Morphine and Scopolamine, By C. HOFMANN.
5. Morphine-Scopolamine Narcosis, By B. KORFF.

6. Transitory Mental Disturbance After Exposure to Intense Cold,
By H. VOGT.
7. Roentgen Ray Apparatus for the Practitioner,
By H. KRAFT.
8. Interrupters in Roentgen Ray Apparatus,
By A. KÖHLER.

1. **Renal Function.**—Gæbell advises that, to determine the functional activity of each kidney, it is well to place the patient upon a generally agreed test diet for several days. After a certain time has elapsed after the test meals have been eaten, the urine is to be drawn from each ureter by a ureteral catheter which should remain in place from two to three hours, the urine being examined at certain intervals, and likewise measured. Uniformity in methods at various clinics is to be observed so that results can be uniformly estimated.

2. **Drop Method of Ether Administration.**—Fuchs maintains that Witzel's method of giving ether by the drop method preceded by the subcutaneous injection of morphine, is safest for gynaecological practice, since ether is a safer anæsthetic than chloroform, although it cannot replace the latter in ventral laparotomies or in obstetrical practice. He urges its safety on the ground that gynaecological patients are often exsanguinated women in whom an anæsthetic must be used which will not depress the heart. Further, these patients, in the majority of cases, do not present vital indications for operation, so that the narcosis must never endanger life, and exploratory operations must be regarded in the same light.

3. **Modern Ether Anæsthesia.**—Hofmann says that modern methods of ether anæsthesia demand the greatest possible admission of air mixed with the ether, the smallest possible quantity of ether, aided, if necessary, by morphine, scopolamine, chloroform or bromide of ethyl. He strongly recommends the drop method as the best and safest.

4. **Ether, Morphine, and Scopolamine Anæsthesia.**—Hartog recommends ether anæsthesia preceded by the subcutaneous injection of one sixteenth of a grain of morphine and one one hundred and twentieth of a grain of scopolamine. The result in many operations was very satisfactory. The dangers of ether narcosis seem to be diminished and the unpleasant effects of its inhalation are reduced to a minimum.

5. **Morphine-Scopolamine Narcosis.**—Korff records fifty cases of surgical operations of all kinds performed under morphine-scopolamine anæsthesia. The cases were unselected and in no instance was there any untoward symptom. The anæsthetic was not administered to young persons under sixteen years of age, nor to individuals over sixty. The preparation used by Korff was the following.

Scopolamine hydrobromide...one sixty-sixth of a grain,
Morphine hydrochloride.....one-third of a grain,
Distilled water.....150 minims.

Of this solution one third was administered two hours and a half before operation, another third one hour and a half, and the remainder half an hour before the operation. The many advantages

of anæsthesia without loss of consciousness are insisted upon by the author.

6. **Transitory Mental Disturbance.**—Vogt reports the case of a locomotive engineer, who, on the day following a run on his engine during an intensely cold night, became stuporous. This lasted for three days, and was accompanied by complete amnesia. A perfect recovery ensued slowly and gradually. The exposure to bitter cold for many hours is the only assignable cause of the disturbance.

ZENTRALBLATT FUER GYNAEKOLOGIE.

November 21, 1903.

1. Vagitus Uterinus, By ALBERT SIPPEL.
2. Origin of the Intervillous Spaces in Tubal Pregnancy,
By J. VOIGT.

1. **Vagitus Uterinus.**—Sippel does not believe it possible for the child to cry *in utero*, and explains some alleged instances of the occurrence by referring a portion of the cervix or an upright piece of vaginal mucosa as the vibrating membrane which, when air rushes over it, produces a sound similar to the cry of a child. Such instances can arise when a Barnes's bag bursts in the cervix after having been filled with air or when the arm is introduced into the uterus for the purpose of version.

2. **Origin of Intervillous Spaces.**—Voigt has examined specimens from several tubal pregnancies and concludes that the intervillous spaces arise in this way: the trophoblast masses sink into the maternal tissues where the ovum lies and press toward the blood vessels by means of positive chemotaxis and by the actual movement of the individual elements. When they reach the blood vessels, they sink into their walls and eventually replace the vascular walls in such portions as they have entered. Eventually, the blood passes through a vessel whose lumen is that of the original maternal vessel, but whose lining is composed of foetal elements. Through the formation of vacuoles, the maternal blood comes into still closer contact with the trophoblast, while the return flow of the blood into the maternal veins is accomplished in a similar manner.

November 28, 1903.

1. Treatment of Gonorrhœa in the Female with Yeast,
By M. PLIEN.
2. Tampon Drainage After Laparotomy,
By H. THOMSON.

1. **Yeast Treatment of Gonorrhœa.**—Plien reviews the recent literature and comes to the conclusion that the treatment with yeast is not specific, as Landau and Abrahams have alleged. In cases in which the yeast pencils were inserted into the vagina, gonococci could be demonstrated for many weeks after the beginning of the treatment, and in cases in which the germs had disappeared, a profuse mucopurulent discharge continued to be present. In one case the introduction of the pencil into the cervix produced a bilateral pyosalpinx, evidence that the yeast is not capable of destroying the gonococci in their favorite resting-place.

2. **Tampon Drainage After Laparotomy.**—Thomson has successfully used tampons for drainage in cases in which the peritonæum has been

generally soiled by pus or other suspicious material; in cases in which perfect hæmostasis could not be secured by suture and when there is a great deal of oozing; and, finally, in cases in which there have been extensive intestinal and bladder injuries, as a prophylactic measure. His impression is that this method is not only not harmful, but is positively indicated. He prefers to drain through the abdomen, but uses the vagina also in cases of total extirpation of the uterus. Occasionally, a ventral hernia is seen which, however, offers no serious difficulties as a rule.

LYON MEDICAL.

November 27, 1903.

1. Antithyroid Serum, By JEAN LÉPINE.
2. Cystic Tumor of the Median Lobe of the Cerebellum, By CADE and BANCEL.

1. **Antithyroid Serum.**—Lépine summarizes the results of his experiments in injecting or causing ingestion of thyroid gland by saying that first, it is possible, but tedious to immunize a goat against thyroidism; second, the serum of the immunized animal produces no ill effects on a healthy dog, if the dose is limited to 20 centigrammes and a few days are allowed to elapse between doses; third, this dose seems perceptibly to diminish the thyroid function; and therefore, fourth, it is legitimate to try an antithyroid serum in Basedow's disease, but the extreme susceptibility of sufferers to therapeutic measures of any description dictates great caution.

PRESSE MEDICALE.

November 14, 1903.

1. Exeresis of the Trigemini, By L. RAMONÈDE.
2. A Water Dilator, for Use in Strictures of the Urethra, Oesophagus, and Anus, and for Dilatation of the Uterine Cervix, By PIERRE BAKALEINIK.

2. **A Hydroligator.**—Balakleinik has given this name to an instrument composed of a metallic cylinder with a piston, and a long rubber tube designed to enter small strictures and subsequently to be filled with water, avoiding, so the author states, pain, spasm, traumatism, and the other disadvantages incurred in using metal dilators. It is important that no air enters the cylinder when operating, and distilled water is used for this reason and also because it will not attack the metal parts of the apparatus. The gentle and gradual dilatation produced is extremely valuable in painful cases of hæmorrhoids. An indicator placed on the cylinder shows how far dilatation may be carried with safety.

November 21, 1903.

1. Administration of Phosphorus in Psychasthenia, By ALFRED MARTINET.
2. Treatment of Fractures of the Patella and Olecranon by a Bloodless Method, By CHAPUT.

1. **Phosphorus in Psychasthenia.**—Martinet cites five cases in which he had remarkable results in psychasthenic women by the administration of phosphoric acid and the acid sodium phosphate. In all cases where he has been successful, the patients were depressed and below par, whereas in excitable, agitated cases, the results were simply to increase the symptoms and to add to them a violent dyspepsia. In recent, depressed cases, a cure is rapid,

in chronic cases, slow but sure, and in what Martinet calls false cases, all symptoms are intensified.

2. **Bloodless Treatment of Fractures.**—Chaput states he had his first good results in two cases, one a diabetic, the other albuminuric, in which he was afraid to cut, and in which results were excellent. He makes a simple puncture between the fragments of bone and the skin which completely press the collected blood, and then applies compression. Chaput points out that the knees of the lower classes would often require weeks for proper disinfection. He instances the case of Edward VII, in which suture was not done, and maintains firmly that suture is never necessary.

November 25, 1903.

1. A Pseudomeningitic Form of the Syndrome of Acute Suprarenal Insufficiency, By EMILE SERGENT.
2. Lumbar Puncture in the Intracranial Complications of Otitis, By CHAVASSE, and MAHU.

1. **Pseudomeningitis in Addison's Disease.**—Sergent details two cases in which there were all the symptoms of acute meningitis, but in which the necropsy disclosed nothing of importance save great enlargement of the suprarenal capsules. There was no bronzing of the skin. The disease apparently may exist a long time without severe symptoms and then terminate suddenly after a short illness. Overwork is extremely likely to bring about the fatal crisis.

2. **Rachicentesis.**—Chavasse and Mahu consider this procedure of great value in diagnosticating intracranial complications in otitis; performed without aspiration and with the patient in the recumbent posture, it is painless. In the majority of cases, a cloudy or clear liquid, containing after centrifugation bacteria or multinuclear leucocytes shows the existence of a bacterial meningitis. A clear liquid containing abundant leucocytes discloses a tuberculous meningitis, the diagnosis being positive if Koch's bacillus is found. In extradural and subdural suppurations, the cerebrospinal fluid will remain normal as long as the arachnoid cavity is not irritated. In circumscribed meningitides, puncture is not diagnostic. In abscesses of the brain, thrombophlebitis of the lateral sinus, and in non-bacterial, serous meningitides, the fluid is clear, but often increased in quantity and under greater pressure. After traumatic lesions of the labyrinth or of the base of the brain, the fluid will probably contain red corpuscles. Examination of the fluid, whatever the results, must not delay surgical intervention. The actual therapeutic value of puncture is still in doubt, but it should always be combined with other surgical procedures in cases of otitis; its great value has been to prove the curability of certain meningitides, and its discovery was a great step in advance for the art of diagnosis.

GAZZETTA DEGLI OSPEDALI E DE LE C INICHE

Settembre 1903.

1. Congenital Heart Disease, By OTTAVIO DE LOLLIS.
2. A Case of Gonorrhœal Periurethral Abscess, By CARLO GALLIA.
3. Surgical Treatment in Some Forms of Nephritis, By AUGUSTO LUNARDO.
4. A Case of Poisoning with Aspirin, By ANDREA BORRI.

5. The Local Treatment of Burns by Means of Glyceride of Tannin,
By MICELI CAPURBANO
6. A New Method of Finding Albumin in the Urine,
By NICOLA IATRONA.
7. Erysipelatous Septicæmia in a Pregnant Woman,
By NICOLA MUGLIA.
8. The Physiology of the Thyreoid Body Within the Past Twenty Years,
By GUISEPPE URSO.

2. **Periurethral Abscess from Gonococcus Infection.**—Gallia concludes that the gonococcus alone is capable of producing in the glands and periurethral follicles, inflammatory foci of a suppurative character. The discharge of pus mixed with blood is the characteristic symptom of these abscesses. The abscesses must be opened in time in order to avoid complications. They heal more rapidly than those produced by other pathogenic germs.

3. **Surgical Treatment of Nephritis.**—Luxardo concludes, from the study of a series of cases of nephritis of various types operated on, that the operations to be chosen in nephritis depend on the nature of the case and the stage of the disease. In movable kidneys nephropexy can not only fix the kidney, but also cause the disappearance of albumin and casts from the urine, thus showing that the epithelium of the kidney has been restored to health. In the acute nonsuppurating forms of nephritis, nephrotomy may not only make possible a return to normal on the part of the epithelium, but also may prevent the occurrence of suppuration. Bilateral lesions are not a contra-indication against an incision of the capsule. Nephrotomy is also useful in certain chronic nephritides which are not Bright's disease, the latter constituting a diseased condition of the entire system. Nephrotomy is also recommended in uræmia, and is the most useful procedure in this condition, because it allows the kidney to recover more rapidly than any other method. Incision of the capsule allows the cortex to expand, and cures colics, hæmaturia, and disturbances of secretion, but does not always cause a return of the parenchyma to normal. It may, however, prevent an acute nephritis from becoming chronic. The effects of decapsulation are not as yet fully known, but the advantages of the procedure are indisputable.

4. **Poisoning with Aspirin.**—Borri reports the case of an army officer, aged twenty-nine years, who had received three grammes of aspirin divided into five powders, and within fifteen minutes after taking the first powder was seized with malaise, noises in the ears, dyspnœa, vertigo, and vomiting. Soon there appeared an extensive and well-marked eruption of urticarial character over his body, and the lesions were both large and numerous. A marked œdema of the head and neck appeared, the eyes closed, and the tongue became swollen. The temperature was slightly subnormal and the pulse 150 filiform. Under the use of stimulants hypodermically the patient recovered in five hours. The phenomena of this poisoning were those of acute intoxication with salicylic acid, and it is probable that the molecule of aspirin is not so stable as is asserted, and that under some conditions it decomposes. The au-

thor found that aspirin was decomposed not only in gastric, pancreatic, and intestinal juices, but also in saliva, and even in water. In this case, absorption took place from the stomach, because the symptoms came on so quickly after ingestion. The amount of salicylic acid in the molecule of aspirin is small and it is probably the peculiar union of this acid with acetic that renders its effect so toxic in these cases.

5. **Treatment of Burns.**—Capurbano uses a solution of tannin in glycerin for the local treatment of burns and scalds. The solution is used in the strength of fifty per cent. and the glycerin must be pure. The bullæ are punctured and gauze soaked in the glycerotannate is applied. The solution is again applied several times daily without removing the gauze, until the new epidermis is formed and the gauze falls off. In burns of the third degree, the destroyed tissues are removed, so far as the part will permit, and the application is made in the same way. In this mixture the glycerin, as well as the tannin, is important, as the tannin alone cannot heal a burn.

6. **New Method of Detecting Albumin in the Urine.**—Iatrona recommends the use of a formalin solution for finding albumin in urine and also for differentiating it from egg albumin. A solution of formaldehyde (commercial, 40 per cent.) precipitates both serum albumin and serum-globulin from the urine, but does not affect solutions of egg albumin, except to render them cloudy. The new test is used qualitatively by adding two cubic centimetres of formalin to five or six cubic centimetres of the suspected urine without heating, whereupon the albumin and globulin are precipitated in flocculi. Quantitatively this solution may be also used, instead of the Esbach solution, in the albuminometer, the urine being diluted if need be, i. e., if it exceeds four grammes to the litre in albumin contents.

RIFORMA MEDICA.

October 7, 1903.

1. The Importance of Cytases Artificially Produced in the Organism, in Experimental Infections,
By NICOLA PANE.
2. Researches Upon Post Mortem Changes in the Bactericidal Power of the Blood in Rabbits,
By C. CAFFIERO.
3. A New Method of Analysis for Vegetable Poisons in Medicolegal Toxicology,
By E. DI MATTEI.
4. On the Disinfectant Value of Alcohol Vapors,
By P. SATTA.

1. **Cytases Artificially Produced.**—Pane, in a review of the recent experimental work on immunity concerning the importance of the cytases artificially produced in experimental infections, concludes as follows: A normal heterogeneous serum, with or without its cytase, injected by the intravenous route, produces a rapid leucocytolysis followed by abundant formation of cytases. The entrance of microorganisms into the system may give rise, under special conditions, to the development of cytases, as the result of leucocytolysis. The rapid development of cytases and the rapid leucocytolysis as the result of injections of hetero-

geneous serums explain the antibacterial power which these serums possess against certain germs affected by the cytase, when the serums and the germs are injected together into the peritonæum.

4. Disinfectant Action of Alcohol Vapors.—Satta says that alcohol vapors have a very distinct disinfectant action, which has the advantages of being very prompt, not injuring fabrics, and not producing any poisonous effect in the atmosphere in which this vapor is used. The odor is not markedly irritant, the cost of the apparatus used is low, and the alcohol, which can be used at 50 per cent., is not expensive. Fabrics with delicate tints are slightly altered, however, by this process. This method is useful in rooms of patients with infectious diseases and in the disinfection of railway cars. The materials must be exposed to alcohol vapors for five minutes and then ventilated until the odor of alcohol is removed.

October 14, 1903.

1. On Mixed Typhoid and Diplococcus Infection. Clinical and Bacteriological Study, with Special Reference to Widal's Reaction (*To be continued*),
By C. QUADRONE, and E. CLER.
2. Vassale's Paragangline in Gastrointestinal Atony,
By G. MANCARDI.
3. A Case of Primary Cancer of the Pancreas, with Multiple Metastases and Cerebral Embolism. Death. Autopsy,
By G. RADICE.
4. Contribution to the Treatment of Rupture of the Urethra,
By F. SORRENTINO.

2. Suprarenal Extract in Gastrointestinal Disorders.—Mancardi says that suprarenal extract is useful in atony of the stomach. It is not so good in intestinal atony, when given by mouth as by enemata. The action is largely local, and hence the remedy, where given by mouth, influences the stomach and small intestines, while the enemata act largely upon the colon. The enemata should consist of from 30 to 100 drops, according to the degree of constipation present, the average dose being 50 or 60 drops. Enemata of suprarenal extract are not painful or followed by any unpleasant symptoms. A prolonged use of these enemata diminishes fermentation in the intestine and increases the body weight by improving the functions of the intestinal tract. The injection of suprarenal extract is of great value for diagnostic purposes in intestinal occlusion, as it enables the surgeon to distinguish between the spastic and the paralytic types of obstruction.

4. Treatment of Ruptured Urethra.—Sorrentino says that in treating a ruptured urethra the surgeon should observe the following rules: Under scrupulous asepsis and antisepsis, and with the greatest care, the ends of the urethra must be sought and trimmed, if the rupture has been irregular. The two ends must be sutured with catgut without including the mucosa in the suture. The perineal muscles should be sutured also with catgut, while silk should be used for uniting the skin edges. The operative wound should not be closed completely, but should be left open posteriorly with a drain of gauze to absorb the blood and exudate issuing from the

wound within the first forty-eight hours. A permanent elastic catheter should be introduced and should remain from eight to ten days, being changed at least once during that interval.

ROUSSKY VRATCH

October 18, 1903.

1. On Endotheliomas of the Pleura and Their Histogenesis (*To be continued*),
By A. I. BOURTSEVA.
2. On Intraperitoneal Ruptures of the Bladder (*Concluded*),
By J. B. ZELDEVITCH.
3. Cases of a Disease Simulating Typhoid,
By D. D. PLIETNIOFF.
4. The Question as to the Operative Treatment of Trachoma,
By J. A. LURIA.
5. The Sanitary Relations of Ore-prospecting Expeditions,
By D. P. NICOLSKI.

3. Cases Simulating Typhoid.—Plietnioff reports two cases of paratyphoid, the only other cases of this infection reported in Russian literature being those of Beliaeff. Both Plietnioff's cases would have been taken for typhoid fever, but that only the colon bacillus was found in the stools on repeated examination. The characteristics of these two cases were the same as those ordinarily described. Incubation was comparatively short, fever sank by lysis and was constant at the acme. The spleen was enlarged. In both the nervous system was more affected than in the majority of the cases. Diarrhoea and tendency to constipation were noted in each case. Gilbert considers paratyphoid a separate disease, which he calls colibacillosis, but there is no unanimity among authors regarding its causation. Inasmuch as "colon bacillus" is a name for a group of germs, one cannot yet say which variety causes paratyphoid, and what relation it bears to typhoid.

4. Operation for Trachoma.—Luria employs the following radical operation successfully in the treatment of trachoma: The upper lid, everted, is held with forceps applied to its edge at the centre. A suture is introduced in the middle of the lid through the conjunctiva, one or two millimetres from the edge of the cartilage. Two sutures are similarly introduced at the inner and outer ends of the lid, about parallel to the first, and, if needed, four such sutures can be used, so as to be as close to one another as possible, making a line across the lid parallel to the edge grasped in the forceps. The conjunctiva is now incised along the whole extent of the granulations, in front of the sutures, each suture being pulled taut in turn, to facilitate incision. Next, the conjunctiva is separated from the cartilage and the adhesions between the infiltrated portion and the cartilage are incised as met with, until the whole trachomatous area is disposed of and the sclerotic is reached. The separation is continued over the sclerotic, in the same way, avoiding injury to the sclera. The granular tissue is now excised and the wound closed with fine silk sutures, to be removed next day. The sutures must pass partly through the cartilage, to render the hold secure. The operation is very radical and somewhat painful, as well as tedious, but there is no doubt as to the permanence of the results. The author has

used it in eighty cases. It is indicated when there is complicating pannus, and the patient can devote but a short time to treatment; and in recurrence after palliative treatment, with acute pannus and other signs on the part of the cornea. It is contraindicated by fresh ulcers or infiltrations of the cornea and marked thickening in the connective tissue layers of the upper conjunctival fold. In all cases but three, the result was favorable and the improvement was apparent, in the cornea especially, even during the second week.

October 25, 1903.

1. Two New and One Old Signs of Tetany. Their Application in the Diagnosis of Nervous Diseases in Children and in Connection with Latent Tetany (*To be concluded*), By R. A. PETERS.
2. Endotheliomas of the Pleura and Their Histogenesis (*Concluded*), By A. I. BOURTSEVA.
3. Biliary Cirrhosis and Angeiocholitis. The Significance of Their Symptoms in the Surgical Sense, By G. I. VOLYNTSEFF.
4. A Case of Ovarian Extra Uterine Pregnancy, By G. I. OLENKS.
5. The Value of Cystoscopy and Ureteral Catheterism in General, and in Diseases of the Kidneys in Particular (With Demonstration of Nitze's Uretrocystoscope) (*To be concluded*), By B. G. SHEFTEL.
6. Measures to Prevent the Spread of Venereal Disease Among Students, By L. I. JACOBSON.

3. **Biliary Cirrhosis and Angeiocholitis.**—Volyntseff concludes his clinical study of these conditions as follows: (1) Pathology owes to the French (Hanst) the investigation of angeiocholitis and biliary cirrhosis. (2) The surgeon must be thoroughly acquainted with the picture of biliary cirrhosis. (3) Fever, jaundice, colic, and obstruction of the biliary and cystic ducts are not to be regarded solely as symptoms of gall stones, as they may be present without the latter. (4) There is no such thing as "gall stone disease," as a clinical entity,—infectious cholecystitis can give the same picture as cholecystitis with gall stones. (5) Intermittent fever is characteristic of the catarrhal process in the gall bladder or in the bile ducts of the liver. Constant or remittent fever is characteristic of suppurative inflammation of the same parts; yet the type of the fever cannot serve as a positive criterion of the character of the inflammation. (6) The suppurative process rather than the catarrhal is accompanied by the signs of hepatic insufficiency. (7) The severity of angeiocholitis depends upon the extent of the lesions. A localized suppurative angeiocholitis can get well spontaneously without an operation. (8) As it is often impossible to distinguish catarrhal from suppurative angeiocholitis, and as operation has saved even very severe cases of angeiocholitis, it is indicated whenever the condition of the patient grows steadily worse.

As regards biliary cirrhosis the author concludes: (1) Until recently the value of angeiocholitis in the clinical picture of biliary cirrhosis has not been clearly defined, and therefore the treatment of biliary cirrhosis has not always been correct. (2) Fever, pain, colics, hepatic insufficiency, in the clinical picture of biliary cirrhosis indicate the addition of an angeiocholitis. (3)

This complication hastens the course of the cirrhosis. (4) Until recently most surgeons did not look with favor upon the surgical treatment of biliary cirrhosis. (5) Biliary cirrhosis without angeiocholitis can only be treated medically, but if no relief is obtained from the pain and fever, an operation may be necessary. (6) The history of jaundiced patients must be carefully taken in order to find out the possible occurrence of cholæmia. (7) In all cases of inflammation of the biliary tract the blood serum must be examined for bile pigments.

4. **Ovarian Extrauterine Pregnancy.**—Olenko's case was a typical ovarian pregnancy, which is rarely seen, constituting according to Schrenck, only 4.6 per cent. of all extrauterine gestations. The patient was a woman aged 25 years, who had borne no children. Operation revealed an ovarian pregnancy and the patient recovered.

6. **Measures for Preventing Venereal Disease Among Students.**—Jacobson reviews the question as to the frequency of venereal diseases, mentioning among other facts the result of the special committee's work in New York. He advises the widespread use of circulars to the students, as has been done in Germany, and also the formation of a Russian National Society for the Prevention of Syphilis.

AMERICAN MEDICINE.

December 10, 1903.

1. The Finsen Light and Röntgen Rays in the Treatment of Diseases of the Skin (*Illustrated*), By JAY F. SCHAMBERG.
2. The Diagnosis of Trichiniasis, By WILLIAM FITCH CHENEY.
3. Perforated Gastric and Duodenal Ulcers: With a Report of Four Cases Operated Upon, By JOHN H. GIBBON.
4. The Influence of the Municipal Milk Supply Upon the Deaths of Young Children, By GEORGE W. GOLER.
5. Indications for Operations on the Gallbladder and Bile Ducts, By RANDOLPH WINSLOW.
6. The Recent Epidemic of Smallpox in California, By DANIEL CROSBY.

1. **The Finsen Light and Röntgen Rays.**—Schamberg discusses at some length the treatment of various skin diseases and the best forms of apparatus required. Fifteen cases treated at the Philadelphia Polyclinic are reported, and many of the cases are illustrated. The Finsen light used was of the so-called London Hospital pattern. The author's conclusions, abbreviated, follow: "(1) The Finsen light is generally recognized as constituting the best known treatment for lupus vulgaris. In order to secure good results it is necessary to employ the large lamp used by Finsen. (2) In lupus erythematosus the Finsen light, in our hands, has effected some improvement, but no cures. (3) In certain cases of lupus vulgaris the Röntgen rays give most gratifying results. (4) The Röntgen rays have certain distinct limitations in the treatment of cancer of the skin. The rays will cure practically all patients having superficial cancer, and some with carcinoma of the integument. But the majority of

deep-seated cutaneous and subcutaneous growths do not do well. They may improve for a while and deceive both the patient and the physician, but relapse, and subsequent spreading, are common. Buccal epithelioma and deep-seated epitheliomas involving the lip, had better be treated surgically and subsequently subjected to radiotherapy. (5) The Röntgen rays are extremely valuable in acne, in which disease the most brilliant results are obtained, even in long-standing cases. (6) The Röntgen rays are of value in many cases of eczema. (7) In psoriasis, the effect of the Röntgen rays is but temporary. (8) The Röntgen rays find a large field of usefulness in dermatological practice. In addition to the dermatoses mentioned, the rays have been found to be beneficial in syphilis, lichen planus, hypertrichosis, ringworm, and favus of hairy regions, tuberculosis of the skin, mycosis fungoides, blastomycetic dermatitis, localized pruritus, etc. (9) In the treatment of diseases of the skin the liability to the production of a burn, with ordinary precautionary measures, is extremely slight."

2. **Trichiniasis.**—Cheney reports one case of trichiniasis in which he was able to confirm the diagnosis by having small pieces of excised muscle examined under the microscope. The diagnosis of trichiniasis rests on the following data: (1) Muscular pain, usually severe and widespread, due to a general myositis; (2) continued or remittent fever, resembling that of typhoid; (3) a persistent leucocytosis, averaging from 10,000 to 20,000; (4) an increase in the eosinophiles, varying from 10 per cent. to 50 per cent.; (5) the presence of trichinæ in the muscle tissue; and to these should be added (6) œdema about the face and ankles, on which as a diagnostic feature much stress is laid by Osler and others, but which was never observed in the case under consideration; (7) least valuable of all, a history of having eaten pork. With regard to the diagnostic value of eosinophilia in trichiniasis two questions need answering: (1) Is it constantly present? The author answers no, but that it is so in the great majority of cases. (2) Does eosinophilia occur only in trichiniasis? No, but the rather long list of diseases in which eosinophilia does occur, differ so in their clinical picture from the disease under consideration that no one should be misled on this account. The author asserts his belief that trichiniasis is far more prevalent than is generally imagined, and that the apparent rarity of the disease is due to it being mistaken for other conditions.

3. **Gastric and Duodenal Ulcers.**—Gibbon reports four cases operated on for either gastric or duodenal ulcers. With these four cases for his text he writes a general article on the subject. He does not think that it is necessary to excise the ulcers. He either inverts them or draws a pursestring suture around them. The abdominal cavity should be flushed with hot normal salt solution and drainage should always be employed. The mortality after perforation is always high, 45 to 50 per cent. The prevention of perforation is, therefore, important. When medical treatment has failed a gastroenterostomy

should be resorted to. This will enable the ulcer to heal.

4. **Milk Supply and Infant Mortality.**—Goler records the results obtained and the methods employed, in Rochester, by the local authorities in their attempt to better the milk supply. The experiment is now six years old, so that the test must be admitted to be fair. The mortality for infants under one year of age has been reduced 65 per cent.; the mortality of children from one year to five years of age has been reduced 58 per cent. The methods employed to attain these results have been many. The principal ones were: (1) Education of the public as to the advantages of clean milk. (2) Milk inspection laws. (3) A municipal milk supply, at cost, to the poor.

6. **Smallpox in California.**—Crosby calls attention to the fact that, while the recent epidemic of smallpox in California was of a very mild type, yet it was true smallpox and not varicella. The disease behaved peculiarly in a number of ways, which the author discusses fully.

BOSTON MEDICAL AND SURGICAL JOURNAL.

December 17, 1903.

1. Malaria and Mosquitoes of Worcester. A Year's Observations on the Habits of *Culex* and *Anopheles* (*To be continued*). By WILLIAM W. WHITEHEAD.
2. Some Cases of Facial Erysipelas from Erosions of the Nasal Septum, By JOHN W. FARLOW.
3. A Case of Gumma of the Falloppian Tube, By GEORGE S. WHITESIDE.
4. The Indol of the Fæces as a Measure of Putrefactive Processes in the Intestines, By A. E. AUSTIN.
5. Was He Insane? A Study in Mental Diagnosis, By C. A. DREW.

2. **Facial Erysipelas.**—Farlow believes that many cases of so-called "medical" erysipelas about the face are due to the entrance of microorganisms through lesions in the nose. He reports four cases that have come under his observation, in which he was able to demonstrate erosions of the septum. The author is of the opinion that when lesions in the interior of the nose are responsible for the attacks of erysipelas it will generally be found that the infection has entered through some septal lesion. We abstract one case in order to illustrate the author's results: Miss L., forty years of age, had had a number of attacks of facial erysipelas. During the last attack she came under the author's observation. He found a marked erosion of the septum which he treated. The nose was cleaned and kept clean and the symptoms rapidly subsided. She never again suffered from an attack of erysipelas, and died nine years later of renal disease.

3. **Gumma of the Falloppian Tube.**—Whiteside finds that the subject of syphilis of the uterine annexa is very imperfectly treated in most of the standard textbooks. He gives a brief summary of what has been said on the subject by a number of authors. He then reports one case of probable gumma of the Falloppian tube. Case: Mrs. M. G. had a clear history of syphilis. When seen by the author she had already been under treatment for some time for symptoms apparently

caused by a tumor, the size of a large lemon, in the region of the right tube. She received some local treatment, without benefit, and refused surgical intervention. She was then placed on specific treatment. In about ten weeks the tumor disappeared and could not be made out, even under ether. About one month after this the patient considered herself cured. Eleven months later she gave birth to a child, who lived only five months. There was no return of the tumor. The author does not contend that the diagnosis in his case is beyond doubt.

4. Indol as a Measure of Putrefaction in the Intestine.—Austin asserts that the attempt to measure albuminous decomposition in the intestinal tract by determining the amount of indican and ethereal sulphates in the urine has led to many errors, since the amount of these substances in the urine is an index, not of the amount of decomposition going on, but of the completeness of the absorption of these substances. The author used the method of Schmidt and Strassburger in making his determinations of indol, phenol, etc. The author's work is not of the kind that appeals to the general practitioner of medicine. One conclusion only need be reported: The author is of the opinion that none of the purely gastric functions have any influence on intestinal putrefaction.

5. Was He Insane?—Drew's article is a study in mental diagnosis. It was apparently written for the purpose of calling attention to the author's belief that "while paranoia and constitutional inferiority with moral perversion (moral imbecility) have much in common, may indeed be well called first cousins, they ought to be separated clinically. . . ."

MEDICAL NEWS.

December 19, 1903.

1. Peripheral Neuritis. A Clinicotherapeutic Résumé,
By WILLIAM BROADBUSH PRITCHARD.
2. Clinical Experiences with the Enlarged Pharyngeal
Tonsil, By H. GRADLE.
3. The Surgical Treatment of Dysmenorrhœa,
By WILLIAM E. PARKE.
4. The Dangers of Inflating the Stomach with CO₂ Gas;
Its Diagnostic Value. Report of Three Cases with
Autopsies, By MOSES BEHREND.
5. On the Value of Ureteral Catheterization and Urine
Separation with Hæmocryoscopy and Urinocryos-
copy in Surgical Diseases of the Kidney,
By WILLIAM E. LOWER.
6. Some Experiments and Conclusions in Hypnotic Thera-
peutics, By W. H. WALLACE.

1. Peripheral Neuritis.—Pritchard limits himself strictly to the clinical and therapeutic aspects of peripheral neuritis. The four forms he treats of in detail are, neuritis (1) of the facial nerve; (2) of the sciatic nerve; (3) of the intercostal nerves, and (4) of the fifth nerve. He adds a paragraph on traumatic neuritis. The author sums up his therapeutic teaching as follows: ". . . Let me emphasize certain facts. . . . First the importance of functional rest in all cases of neuritis, often to the extent of mechanical enforcement; second, the value of forced nutrition,

especially with fats, both constitutionally and locally, cream, butter, and lanolin by inunction, being always indicated; third, my great confidence in electricity and massage, neither of which, however, should be used empirically, both of which require in individual cases the utmost nicety of personal adjustment; fourth, the maintenance of an equable surface temperature in all forms of sensory neuritis, best attained by the use of lamb's wool fleece; fifth, the recognition of neurotic habit tendencies and predisposition which vary widely, but should always be observed and never overlooked or disregarded and met with corrective nerve discipline, the method varying perhaps with each patient; sixth, recognition of the fact almost axiomatically true that all cases of neuritis except perhaps the traumatic and mechanical are associated with and often dependent upon states of altered metabolism and perverted nutrition to which recognition is logically correlated the necessity of tonic alterative and nutritional measures."

2. Dysmenorrhœa.—Parke asserts that in general terms dysmenorrhœa might be divided into two classes, the one curable by dilatation and curetting and the other not. Some cases suitable for operative intervention will require more formidable operations than the ones referred to. The kinds of dysmenorrhœa most likely to be either cured or improved by dilatation and curetting are: (1) Obstructive types. (2) Membranous dysmenorrhœa. (3) Spasmodic dysmenorrhœa. (4) Congestive dysmenorrhœa. These last are, however, only curable by operation when the congestion depends on some form of obstruction.

4. The Dangers of Inflating the Stomach with CO₂ Gas.—Behrend reports three cases in which death followed shortly after attempts to dilate the stomach with CO₂ gas for diagnostic purposes. He sums up his paper with the following comment: "It must be evident from these observations that the use of CO₂ gas in inflating the stomach is a serious matter. It is infinitely more dangerous where there is disease of the œsophagus and cardiac end of the stomach. This may be due to the pressure exerted within narrow limits. The test must be used, if at all, with discretion and the cases must be selected. The lives of all the above patients were undoubtedly shortened."

5. The Value of Ureteral Catheterization.—Lower reproduces at the end of his paper the following deductions from a previous article: (1) Before doing a cutting operation upon a kidney—especially before doing a nephrectomy—the presence of a second functioning kidney should be established. (2) The best and safest method for ascertaining the presence of a kidney is by the aid of cystoscopy and ureteral catheterization. (3) The function of the kidney is best determined, in order of importance: (a) By the freezing point of the urine; (b) by phloridzin glycosuria; (c) by the quantity of urine excreted; (d) by the freezing of the blood. (4) The most reliable method of obtaining the separate urines is by the ureteral catheter.

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

December 19, 1903.

1. An Epidemic of Typhoid Fever from Sewage Pollution of City Water Supply. By THOMAS F. HARRINGTON.
2. The United States Pharmacopœia of 1900.
By CARL S. N. HALLBERG.
3. How Far Should the Specialist in Rhinology and Otolaryngology Presume to Treat the Systemic Condition of His Patients? By CAROLUS M. COBB.
4. The Early Manifestations of Laryngeal Tuberculosis; Their Frequency and Treatment. By H. H. BRIGGS.
5. The Vasomotor System of the Pulp,
By EUGENE S. TALBOT.
6. The Trend of Gynæcologic Work To-day (*Concluded*),
By A. PALMER DUDLEY.
7. The Capacity of a Human Muscle for Work,
By JESSE GEORGE HOLMES.
8. Dystocia Caused by Double Congenital Cystic Kidney in the New-Born; A Contribution to the Study of Congenital Cystic Kidney, By EDWARD E. MORSE.

1. **Typhoid Fever from Sewage Pollution.**—Harrington records the epidemic of typhoid fever that occurred in Lowell, Mass., during August and September, 1903. The paper is of value simply as a confirmation of the already well established fact that if the water of a town is sufficiently contaminated with typhoid infected sewage an epidemic of typhoid will inevitably follow. In the case recorded the sequence of cause and effect is very conclusively shown.

2. **The United States Pharmacopœia of 1900.**—Hallberg announces that the pharmacopœia of 1900 will probably appear some time in 1904. It seems hardly worth while to call attention to any of the proposed changes noted by the author, as by the time the book comes out, the reader will have forgotten them.

3. **Should the Specialist Presume to Treat the Systemic Condition of His Patient?**—Cobb thinks he should not, and this for a variety of reasons. We summarize what seem to us to be the author's reasons, quite baldly thus: (1) The specialist does not know enough medicine to make him a safe adviser in constitutional conditions. (2) The family physician would not much care to refer patients to a specialist who incidentally practised general medicine. (3) Not enough is known of the effect of many ailments in either giving rise to, or prolonging, morbid processes in special organs. The author asserts that the interests of the patient as well as those of the general practitioner and specialist will be best conserved by the two medical men working together on the same case.

6. **The Trend of Gynæcologic Work To-day.**—Dudley concludes in this issue an elaborate paper on the trend of gynæcologic work to-day. He has collected and presents in succession the views of almost all the best known operators in this field of surgery. It is impracticable to attempt to summarize the results of the author's inquiry in detail. The one general conclusion that may be drawn is that the whole tendency of modern gynæcologic work is toward extreme conservatism. No single organ or part of an organ should be sacrificed without the very best of reasons.

7. **The Capacity of Human Muscle for Work.**—Holmes presents the following as a summary of his paper: (1) A muscle working under normal physiologic conditions is neither "loaded" nor "after-loaded." (2) A muscle will not contract isotonicallly nor isometrically under normal physiologic conditions. (3) When a Mosso or a spring ergograph is used, a large part of the energy expended by a muscle during a period of work is lost. This loss occurs in easing back the weight or the spring to its position of rest or to the zero point. (4) A recognition of the conditions under which a muscle works and the end to be attained is necessary when an interpretation of ergographic results is to be made. (5) A normal muscular contraction ("normotonic") consists in contraction, relaxation without load, rest. (6) A new form of weight ergograph has been devised which allows the human muscle to work at a greater advantage than that given by any previous form of ergograph, because it permits "normotonic" contractions. (7) A human muscle is capable of doing a far greater amount of work by the use of the new ergograph than has been previously shown in ergographic work. (8) A muscle can work over periods of long duration without fatigue when the conditions are favorable. (9) These experiments confirm the conclusion stated by Maggiora that there is a definite weight with which one can perform the greatest possible work. (10) The physiologic limit of a muscle for continuous work is modified by the rate, load and interval, or by rest and work.

MEDICAL RECORD.

December 19, 1903.

1. Leprosy in Hawaii, By JAMES T. WAYSON.
2. The Diagnosis and Treatment of Intussusception, with a Report of Four Cases, By HENRY ROTH.
3. An Unappreciated Source of Typhoid Infection,
By P. B. BARRINGER.
4. Points to Be Observed by the Family of a Tuberculous Patient,
By C. P. AMBLER.

1. **Leprosy.**—Wayson gives eight very good illustrations of the three principal types of leprosy, and discusses the disease principally from the public health point of view. Some of his ideas regarding the disease do not conform to those usually laid down in textbooks. The author believes that the *Bacillus lepræ* has spores, and that it is the spores exclusively that propagate the disease. The life of the bacillus itself is so short that it defies attempts at cultivation. The author also believes that in order for the spores to become active they must first be passed through the air. The total number of lepers at the settlement, Hawaii, in 1903, was nine hundred. The author estimates that there are about four hundred more cases at large in Hawaiian territory.

2. **Intussusception.**—Roth's paper covers the subject of intussusception quite thoroughly. We abstract only his advice regarding the treatment of the condition. The diagnosis should be made early. This is essential, and should present no difficulties. When the case is seen within the first twelve hours, an attempt should be made to reduce the condition by mechanical means. This is best done by etherizing the child, placing it

approximately in the knee-chest position, and distending the colon with water, at the same time massaging the abdomen. Failure of reduction by this means should be followed at once by laparotomy. The treatment is therefore similar to that now recognized as imperative in cases of strangulated hernia, taxis, in the latter, taking the place of inflation.

3. Typhoid Infection.—Barringer asserts that a prolific source of typhoid infection is the railway water closet. He divides the total passenger mileage by the track mileage and finds that each mile of road is traversed every year by eighty-five thousand passengers. What proportion of the passengers defecate, and how many of the discharges are typhoidal in character, the author does not state. He concludes, however, that the road bed must of necessity be very thoroughly infected. The paper suggests more possibilities than it proves. That the railway water closet is a possible source of danger, we believe the author amply proves. We cannot give, as the paper does, all the possible consequences of such a broadcast dissemination of numerous infections.

LANCET

December 5, 1903.

1. Continuous Local Infection, By R. J. GODLEE.
2. A Patient with Mitral Stenosis, By H. WALDO.
3. On the Present Treatment of the Enlarged Prostate, By C. M. MOULLIN.
4. A Case of Chronic Intussusception; Excision of Forty-two Inches of Small Intestine; Recovery, By F. C. WALLIS.
5. Adaptation and Compensation, By G. A. GIBSON.
6. A Case of Invasion of the Cauda Equina by Tumor with Demarcation of All the Sensory Root Areas of the Lower Limbs, By C. R. BOX.
7. On Albuminuria as an Accompaniment of Diabetes Mellitus, By F. W. PAVY.

1. Continuous Infection.—Godlee states that many of the diseases of middle or later life are due to the absorption of small, it may be minimal, doses of poison. Such poisons may be inorganic in origin, as alcohol; they may be due to faulty metabolism, as in the dyspeptic; or they may be the products of local disease. An example is furnished in appendicitis, where from the local lesion in the appendix the bacilli and their toxins continuously pass into the cæcum, thence to be absorbed. In cases of recurrent appendicitis if there is any suspicion of chronic septic poisoning, it is a strong argument in favor of operation. Inspissated abscesses are common in appendicitis, and they may cause trouble by the absorption of their contents or by their liability to become active independently of fresh acute mischief in the appendix. Pyorrhœa alveolaris is a common source of continuous infection. It is important because it is so common and so insidious; because its effects are so pernicious and so varied; and, lastly, because it is so difficult to cure. The patients complain that the gums bleed easily, that there is a bad taste in the mouth, and that there is a large amount of expectoration which may be blood-stained or mixed with pus. The signs of the disease may not be obvious if the teeth are kept

clean; in advanced cases nothing more than a red line along the margin of the gums may be noted on superficial examination. But probing will reveal the suppurating pockets. The condition often occurs in members of the same family, usually starts in young adult life, and if unrelieved almost inevitably leads to premature loss of the teeth. It has probably no relation to the gouty diathesis. The fangs of the teeth where they are surrounded by these pockets, are covered with black tartar. The swallowing day and night of the septic organisms from these pockets, can and does act most harmfully. Among the diseases supposed to be caused by pyorrhœa and other forms of oval sepsis are septicæmia, rashes, purpuric hæmorrhages, toxic neuritis, septic gastritis, stomatitis, pharyngitis, and amygdalitis, ulcerative endocarditis, pernicious anæmia, chronic dyspepsia, bronchiectasis, etc., etc. The disease should be thoroughly treated before undertaking any surgical operation upon the mouth. The treatment rests with the dentist, who should carefully and repeatedly remove all tartar from the fangs and then attack the organisms in the pockets by means of syringing or packing with antiseptics.

Lardaceous disease results from chronic continued suppuration, and is most common in those cases where the pus is confined and drainage is imperfect or absent. Pulmonary osteoarthropathy arises from similar causes: the ordinary case is a combination of the clubbed extremities so often seen in lardaceous disease, and septic osteoarthritis. Where the cause can be attacked (*e. g.*, empyema) the disease is curable, but in most cases bronchiectasis is at the root of the trouble, for which nothing radical can be done. The septic osteoarthritis of young women often accompanying leucorrhœa, and the various forms of gonorrhœal rheumatism are matters of common knowledge. Patients suffering from chronic tuberculous glands of the neck are always ailing: there seems to be some chronic poisoning going on, some secretion from these glands analogous to the internal secretion of the thyroid. The one fact insisted on is that widespread disorders may depend upon small infectious acting sometimes unperceived over long periods of time and that neglect of observing the cause may lead to the adoption of erroneous lines of treatment.

2. Mitral Stenosis.—Waldo states that the diagnosis of mitral stenosis is in the majority of cases most reliable. In pure mitral stenosis the left ventricle is not enlarged: theoretically it should be smaller than in health. In the late stages where the left auricle is very distended and the right ventricle fails to compensate, the presystolic murmur disappears. Embolism is frequent in mitral stenosis due to the obstruction of the mitral valve and the consequent stasis. Hæmaturia is suggestive of embolism. Dropsy is not so frequent as in mitral insufficiency. The liver is often enlarged. The sleeplessness which is so common is due to the imperfect cerebral circulation. Bronchial catarrh is easily set up, and if the hepatic veins are much dilated a pulsating liver may be present. In giving a prognosis a

most favorable sign is a well marked second sound heard at the pulmonary area, which is sometimes reduplicated. It means that the hypertrophy of the right ventricle is well maintained. Rest in bed is often necessary, and venesection frequently does good. Blue pill is of the greatest value in this condition of an over-distended venous system. Compound jalap powder is useful for dropsical complications and the cardiac pain is best relieved by restricting the amount of fluid taken.

3. Enlarged Prostate.—Moullin states that the first essential in the treatment of enlarged prostate is the accurate determination of its nature. If it is due to simple congestion of the venous plexuses in and around the neck of the bladder, it is best treated by means of Bottini's cautery, as modified by Trendelenburg. The bladder is distended with air and three parallel incisions are made with the white-hot blade, one along the middle line of the neck of the bladder, the others one on each side. An anæsthetic is not necessary and the hæmorrhage is not worth mentioning. That form of enlargement of the prostate which is due to irregular glandular overgrowth admits only of mechanical treatment. When the bladder is small and rigid from repeated attacks of cystitis and the prostate is very hard and dense the perineal method is indicated. Under all other conditions the prostate, as from the nature of its surroundings it must grow up towards and into the bladder, is best approached though the bladder as was first advocated by McGill fourteen years ago. If the operation is to prove successful it resolves itself into removing the whole of the vesical mass, whether it springs from the lateral lobes, or is an upgrowth from the posterior wall, or is a detached nodule, and then extending the exploration down the whole length of the prostatic urethra. The larger and more lobular the masses of which the enlarged prostate is composed, the more easily can they be shelled out because of the fictitious capsule which they form around them. If the muscular coat of the bladder has been already ruined by catheterization and cystitis, removal of the enlarged prostate cannot restore it, though it will help it by rendering its work more easy.

7. Albuminuria in Diabetes.—In the continuation of Pavy's article he states that the cause of the consecutive albuminuria occurring in connection with diabetes is a toxic influence of the sugar abnormally present in the blood upon the kidney. With the advent of diabetic coma, albuminuria, attended with a profuse discharge of casts, is encountered as a concomitant phenomenon. The casts are mostly short and wide, and at the ends look as if broken off; their contour is very distinct and their structure is more or less highly granular. This deposit of casts is of diagnostic value, as it foreshadows the supervention of coma. The albumin does not stand in proportion to the casts, and the amount is not large. The acetone series of products which constitutes the source of the coma evidently exert a pernicious action on the kidney. The accumulation of oxybutyric and diacetic acids throws the whole mechanism of the body out of working order. The

changes found in the kidney are those produced by a renal irritant poison. Where the toxic influence of alcohol has play in association with diabetes the condition is much aggravated and the progress of the disease greatly hastened. The development of peripheral neuritis in the diabetic is much promoted by the intemperate use of alcohol.

BRITISH MEDICAL JOURNAL.

December 5, 1903.

1. Means for the Prolongation of Life, By SIR H. WEBER.
2. The Treatment of Some Acute Visceral Inflammation. (Harveian Lectures; No. III), By D. B. LEES.
3. Sleeping Sickness and Trypanosomiasis in a European: Death: Preliminary Note, By SIR P. MANSON.
4. On a Dysentery Antitoxine, By C. TODD.
5. On Total Extirpation of the Stomach: With a Record of An Unsuccessful Case, By B. G. A. MOYNIHAN.
6. A Case of Double Perforating Gastric Ulcer, By L. L. KEAYS.
7. Excision of a Perforated Gastric Ulcer: Recovery, By E. O. ASHE.

1. Long Life.—Weber sums up the main points to be observed by those desirous of a long life, as follows: (1) Moderation in eating, drinking, and physical indulgence. (2) Pure air out of the house and within. (3) The keeping of every organ of the body as far as possible in constant working order. (4) Regular exercise every day in all weathers; supplemented in many cases by breathing movements, and by walking and climbing tours. (5) Going to bed early and rising early, and restricting the hours of sleep to six or seven hours. (6) Daily baths or ablutions according to individual conditions, cold or warm, or warm followed by cold. (7) Regular work and mental occupation. (8) Cultivation of placidity, cheerfulness, and hopefulness of mind. (9) Employment of the great power of the mind in controlling passions and nervous fear. (10) Strengthening the will in carrying out whatever is useful, and in checking the craving for stimulants, anodynes and other injurious agencies.

2. Pneumonia, Empyema, Appendicitis, and Nephritis.—In the last of the Harveian lectures, Lees combines the suggestions of the preceding lecture into a plan of treatment of pneumonia, as follows: First take steps to render the patient warm, by means of hot bottles, hot packs, and hot drinks. Then follows a careful and exhaustive physical examination. Some slight indication of the coming trouble can usually be detected even in the first twenty-four hours, and it is of the greatest importance to do so, as there is a chance of arresting the disease by vigorous treatment. Hot water bags should be put at the patient's feet, and ice bags applied over the suspected part of the lung, one in front and one behind. Spray the throat with a 1 to 2,000 bichloride solution every three hours. The diet should consist of milk. The author reports two cases in which the above line of treatment brought about a rapid subsidence in the temperature, and an apparent aborting of the disease process. Even if the disease is not arrested the ice applications

should be continued. Sleep must be obtained for the patient, even if morphine has to be used. If right heart weakness shows itself by means of dulness in the fourth right space, and the appearance of dyspnoea and cyanosis, leeches should be applied over the right lower ribs. When the right auricle has been relieved it will be found necessary to give water copiously, to relieve thirst and eliminate the toxine. The dyspnoea and cyanosis may be so extreme as to require active venesection. In pneumonia the final issue depends upon the treatment or want of treatment of the first few days. The author calls attention to the occurrence of what may be termed acute empyema, in which the pneumococcal invasion mainly or exclusively involves the pleura, the lung being little affected. It is more common in children, and is usually taken for pneumonia in the beginning. If there is any room for doubt an exploring needle should be passed; if pus is found an incision should at once be made, a piece of rib removed, and a drainage tube inserted. Acute pleurisy in its earliest stages may be very successfully treated with ice to the chest, one ice bag being often sufficient. It relieves the pain, and the friction rapidly disappears. In the treatment of a large serous effusion ice externally is very useful, but it should be preceded by a paracentesis. After tapping the chest should always be strapped. Ice often gives great relief in acute local pulmonary tuberculosis, also in acute laryngitis. In the treatment of appendicitis the persistent application of an ice bag is far more effective than fomentations or poultices; it rapidly relieves pain and obviously diminishes the local inflammation. Clinically the cases may be divided into three groups: (1) Cases of perforation of the appendix with escape of concretions or pus into the peritoneal cavity, or of a gangrenous condition of the appendix itself; such cases demand immediate operative intervention; (2) cases due to a subacute inflammation of the appendix, which may be chronically thickened; such cases usually recover in time under any treatment, but they are prone to relapse; the ice bag often effects a rapid subsidence of the swelling and of the symptoms; (3) cases midway between the two classes mentioned, which while the symptoms are definite and acute, do not call for immediate operative interference; here the ice bag not only gives relief, but is also of diagnostic or prognostic value, for those cases not relieved within four hours by its use should be operated upon without delay. The author has been very successful in the treatment of acute nephritis by means of the application of ice over the kidneys, the patient being first made thoroughly warm, his skin made moist by a hot air bath, and be kept warm by hot water bottles. When used with care ice over inflamed kidneys has a well marked diuretic influence by diminishing the local congestion in the inflamed organ. It appears to be directly curative.

3. Sleeping Sickness.—Manson reported a case of trypanosoma fever in a European woman, in May, 1903. The patient, who was living on the Upper Congo in Africa at the time, was bitten on the left leg by some insect, presumably a tsetse fly (*Glossina palpalis*), in August, 1901.

Two weeks later she had the first of a long series of recurring attacks of fever, with a patchy, ringed erythema of the skin, and enlargement of the spleen and liver. In May, 1902, she had an attack of phlebitis in the left leg. In October, 1902, she was seen by the writer, who diagnosed trypanosomiasis, a long search revealing trypanosomes in her blood. Attempts to destroy the trypanosomes by means of arsenic, methyl blue, etc., were futile. The attacks of fever became more severe during the summer of 1903, and about the middle of October her friends noticed for the first time a tendency to drowsiness. Her condition rapidly grew worse, drowsiness increased, control of the sphincters was lost, and she died comatose November 26th. At the autopsy macroscopic signs of chronic meningo-encephalitis were found, and microscopical examination revealed the extensive circumvascular small uninuclear infiltration so characteristic of sleeping sickness.

4. Dysentery Antitoxine.—Todd's conclusions, arrived at as a result of his experiments, are as follows: (1) By growing the dysentery bacillus in a somewhat highly alkaline broth a soluble toxine is obtained. (2) Certain animals, notably the horse and rabbit, are highly susceptible to this toxine. (3) The toxine is fairly stable, and though destroyed by an exposure to a temperature of 80° C. for one hour, is not destroyed by exposure to a temperature of 70° C. for the same period. (4) When injected into suitable animals, for example the horse, the toxine gives rise to a powerful antitoxine. (5) The combination of the toxine and antitoxine *in vitro* does not take place immediately, but requires a certain time, and the rate of combination varies with the temperature.

5. Extirpation of the Stomach.—Moynihan gives a review of the reported cases of extirpation of the stomach, and reports a case of his own in which the operation was performed upon a woman, aged forty-nine years, for cancer of the stomach, the growth involving the whole of the organ. After removal of the stomach, the end of the duodenum was closed by suture, and an anastomosis made between the œsophagus and a loop of the jejunum. The patient died of shock in six hours. The author holds that the operation is a justifiable one in a small number of cases, and that its difficulties are less than might be anticipated.

6 and 7. Perforating Gastric Ulcer.—Keays reports the case of a girl, aged sixteen years, apparently in the best of health, who was taken suddenly ill and died within twenty-four hours. There were no clear and tangible symptoms of perforation. At the autopsy a double and practically simultaneous perforating ulcer of the stomach was found.

Ashe reports a case of perforating gastric ulcer, occurring in a woman aged thirty-two years, in which excision of the ulcer was followed by rapid recovery, and the entire disappearance of all gastric symptoms. Simple suture of a perforation could not have any curative effect upon the ulcer.

Book Notices.

A Textbook of Obstetrics. By J. CLARENCE WEBSTER, M. D. (Edin.), F. R. C. P. E., F. R. S. E., Professor of Obstetrics and Gynecology, Rush Medical College, in affiliation with the University of Chicago, etc. Pp. 767, with 383 Illustrations, 23 in Colors. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, \$5.00, net; sheep or half morocco, \$6.00, net.

From the great number of textbooks on obstetrics which have appeared very recently one would gain the impression that every professor of midwifery felt compelled to give his students a book of his own as a souvenir of college days. Were they all of the scientific calibre of the present one, no reasonable objection could be made to their production; for Dr. Webster has given us a rare combination, indeed. His book is both a practical, not too exhaustive, textbook and a scientific work as well. There runs through it the spirit of the investigator and of the critical clinical observer, and this is well combined with the experience of the teacher who knows what the student needs.

Throughout the work the value and necessity of asepsis are insisted upon, and Webster remarks quite pertinently that he regards the scrubbing of the hands in the usual manner as only preliminary to the wearing of gloves. This is rapidly coming to be the rule in obstetrical as it is in surgical work. In general, the author's directions are in accord with the accepted scientific views of the day so far as practical midwifery is concerned. He makes no mention of laying the new-born infant on its right side, but he does correctly insist on keeping all oils and powders away from the umbilical cord, dressing it only with aseptic gauze. For the infant's eyes he advises a two per cent. silver solution.

The mechanism of labor in the various positions is very clearly given, and the obstetric operations are well described. Nothing is said as to the use of the forceps in low occipitoposterior cases to induce rotation of the head, although Webster states that in these instances if the forceps is being used, the handles should be separated between tractions to permit of a possible spontaneous anterior rotation.

Eclampsia is well discussed, the author saying wisely that sometimes one, sometimes several, of the ætiological factors of the disease are at work and that therefore no distinct classification can be given. The treatment corresponds with that generally found in textbooks.

The scientific part of the book contains much that is original. The author has drawn upon his former special studies largely, and we have a fine description of human placentation, very good deductions from frozen sections, and the author's theory as to the causation of ectopic gestation—that is, that it is an example atavism.

From a literary standpoint the work has many praiseworthy elements. It abounds in historical allusion and in pertinent criticism. It is beautifully written in terse, clear, unequivocal language. The illustrations are numerous, many of them original, and are well illustrative of the text.

In a word, Dr. Webster has written a high class, modern, scientific textbook of obstetrics, omitting no

essential practical details. We have no doubt it will meet with that success which the author's fame and position almost insure.

A Textbook upon the Pathogenic Bacteria. For Students of Medicine and Physicians. By JOSEPH MCFARLAND, M. D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College, Philadelphia, etc. Fourth Edition. Illustrated Partly in Colors. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Pp. 629. Cloth, \$3.50 net.

The fourth edition of this work calls for little notice beyond what has been said previously. The use of smaller type has permitted the author to increase materially the amount of the text without adding to the bulk of the work. The general plan of the subject matter has not been changed, and the author still makes use of the following classification of the specific disease: The phlogistic diseases, including the acute infective inflammations and the chronic inflammatory diseases: the toxæmias; the bacteriæmias. The chapters on infection and immunity are naturally the ones to be most critically examined, and we can safely state that these have been very thoroughly revised and extended, and brought well up to the time of publication. The author still prefers the use of agar agar cultures in the agglutination test for typhoid fever. He rubs up a bit of the surface growth with distilled water, instead of employing the customary bouillon cultures. We regret to see in a fourth edition so many misspelled names of authors, as, for instance, Hodenphyl for Hodenpyl, Chrovstek for Chvostek, Liebman for Libman, Milkinow-Raswedenow for Melnikow-Raswedenkow, and many others. This is a small matter to criticise in an otherwise excellent work, but, inasmuch as this fault was pointed out in a review of a previous edition, the author should not have allowed the same inaccuracies to occur again.

Modern Microscopy. A Handbook for Beginners and Students. Combining I. The Microscope and Instructions for Its Use, by M. I. CROSS; II. Microscopic Objects: How Prepared and Mounted, by MARTIN J. COLE, Lecturer in Histology at Cooke's School of Anatomy. Third Edition. Entirely Revised and Enlarged, to Which is Added, III. Microtomes; their Choice and Use. Chicago: W. T. Keener & Co., 1903. Pp. xvi-292.

In this small work the authors have given much information in regard to the microscope, its accessories and manipulation, instructions for preparing, staining, and mounting microscopic specimens, the choice and use of microtomes, and other valuable information along these lines. The different subjects are variously treated by the authors, and much unevenness in the work is noted as a consequence. We have no criticism to offer as to the first part of the book, in which the microscope is very fully described. In fact, much may be learned from it regarding the many accessories of the instrument and the scientific tests that may be applied in the selection of a microscope and its lenses. It is particularly

the second part, devoted to instructions for the preparation, staining, and mounting of specimens, with which we find fault. If the author, when writing these chapters had in mind the embryo microscopist who wishes to amuse himself during the long winter nights with his microscope and stains and objects, we have nothing to say. If he has endeavored, however, to instruct the student, particularly the medical student, we confess to a distinct sense of disappointment in his attempt. He has covered considerable ground in these chapters and describes numerous methods, but many facts are wanting and many inaccuracies are noted. Two valuable articles reprinted from *Knowledge* have been incorporated in this section, viz., Preserving and Mounting *Rotifera*, by Mr. C. F. Rousselet, and Collecting and Preparing *Foraminifera*, by Mr. A. Earland.

The third part is devoted to the choice and use of microtomes, and includes many excellent directions in connection with the use of this instrument. The chapter on paraffin embedding and the cutting of serial sections is admirable. There is much overlapping in the book, and there is some diversity of statement in consequence. On the whole, we can say that we have found much of interest in the book and have read certain chapters with decided profit. In other parts we have been disappointed at the paucity of statement and the absence of logical sequence of the subject matter. A work on modern microscopy should be uniformly scientific. We are sorry to say that in this work this uniformity does not exist.

Textbook of Histology, Including the Microscopic Technics. By Dr. PHILIPP STÖHR, Professor of Anatomy at the University of Würzburg. Fifth American from the Tenth German Edition. Translated by Dr. EMMA L. BILSTEIN, formerly Director of the Laboratories of Histology and Embryology, Woman's Medical College of Pennsylvania. Edited, with Additions, by Dr. ALFRED SCHAPER, Professor of Anatomy, University of Breslau; Formerly Assistant Professor of Histology, Harvard Medical School, Boston. With 353 Illustrations. Philadelphia: P. Blakiston's Son & Co., 1903. Pp. xvi-485. (Price \$3.00 net).

The present edition of this very popular and excellent work shows a diminution in the total number of pages, when compared with its predecessor. This is due to the omission of about seventy pages that were devoted to Appendix B., dealing with general and special technics and microscopical anatomy. The general text, however, shows an increase of some fifty pages and about an equal number of new illustrations. Many chapters show the results of careful revision and the introduction of much new matter. We can refer in particular to the author's work on the development of the hairs and also to the recent researches on the spleen, the urinary bladder, the seminal passages, the morphology of the cell, and the form of glands. Several illustrations on the subject of the histology of the glands have been dropped, including the diagram on the origin of the demilunes of Heidenhain. In describing the serous and mucous cells of the oral cavity, however, the author mentions these "border cells," or "crescents

of Giannuzzi," as they are also known. He accepts many of them as serous cells on account of the presence of certain granules, and their peculiar relations to the secretory capillaries, and because of the differences between them and mucous cells in varying functional states; but he doubts whether all demilunes are of a serous nature, because empty mucous cells may become demilunes by being pushed from the lumen by neighboring cells that are filled with secretion.

Throughout the book we have noted with pleasure many sections that have been rewritten, and we commend the editor and the publishers for this excellent new edition. We must, however, repeat our criticism on the want of a plate illustrating the various granulations in the leucocytes. The introduction of such a plate would materially enhance the value of an otherwise valuable work.

A Textbook of Pathology. By ALFRED STENGEL, M. D., Professor of Clinical Medicine in the University of Pennsylvania. New Edition. With 394 Text Illustrations. Many in Colors, and 7 Full Page Colored Plates. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Pp. 933. Cloth, \$5.00 net; sheep or half morocco, \$6.00 net.

We regard this work as a very useful and reliable textbook, and we feel assured that the present edition will receive the cordial reception accorded to its predecessors. The principal revision has been in the chapters devoted to general pathology, particularly the sections on immunity, inflammation, and the bacterial diseases. The book also has been much improved by the addition of an appendix on pathological and bacteriological technics. Here, in some fifty pages, directions are given for the examination of fresh and hardened specimens and embedding, cutting, and staining sections, together with the more usual methods for examination of special tissues, blood, and animal parasites. General and special bacteriological methods are also given.

As in the former editions, the pathology of the special senses and the skin has been omitted. The book is chiefly to be commended for its practical character, the needs of the clinical pathologist being mainly considered. Pathological physiology is given prominence throughout the work.

BOOKS, PAMPHLETS, ETC., RECEIVED.

Evolution and Adaptation. By THOMAS HUNT MORGAN, Ph. D. New York: The Macmillan Company. London: Macmillan & Company, Ltd. 1903. Pp. xiii-470. [Price \$3.00].

Spotted Fever (Tick Fever) of the Rocky Mountains. A New Disease. By JOHN F. ANDERSON. Washington: Government Printing Office. 1903. Pp. 50.

Untersuchungen über den Magensaftfluss. (Begriff, Entetehung, Behandlung, Stoffwechsel, pathologische Anatomie) Klinischer Teil von Professor H. STRAUSS, Assistent der III. medizinischen Klinik zu Berlin; Patholog.-anatom. Teil von Dr. F. BLEICHRODER, früher Volontär-Assistent am pathologischen Institute zu Berlin. Mit 5 Abbildungen und 1 Kurve im Texte. Separat-Abdruck aus Mitteilungen aus den Grenzgebieten der Medizin und Chirurgie, Band 12, Heft 1, 1903, und aus Beiträge zur pathologischen Anatomie und zur allgemeinen Pathologie, Band 34, Heft 2, 1903.

Jena: Verlag von Gustav Fischer. 1903. Pp. 94. [Preis 2 M.]

Das Röntgen-Verfahren mit besonderer Berücksichtigung der militärischen Verhältnisse. Von Dr. STECHOW, Generalarzt und Korpsarzt des X. Armeekorps. Mit 91 Abbildungen. Berlin: 1903, Verlag von August Hirschwald. NW. Unter den Linden 68. Pp. x-265.

Infection and Immunity, with Special Reference to the Prevention of Infectious Diseases. By GEORGE M. STERNBERG, M. D., LL. D., Surgeon General U. S. Army (Retired), Ex-President of the American Medical Association, and of the American Public Health Association, etc. G. P. Putnam's Sons, New York and London. The Knickerbocker Press. 1903. Pp. ix-293. [Price, \$2.00 net; by mail, \$2.20.]

The Johns Hopkins Hospital Reports. Volume XI, Nos. 1-9. Contents—Pneumothorax: A Historical, Clinical, and Experimental Study. By CHARLES P. EMERSON, A. B., M. D. Clinical Observations on Blood Pressure. By HENRY WIREMAN COOK, M. D., and JOHN BRADFORD BRIGGS, M. D. The Value of Tuberculin in Surgical Diagnosis. By MARTIN B. TINKER, M. D. Baltimore: The Johns Hopkins Press. 1903. Pp. 554.

Diseases of Women. By ALFRED LEWIS GALABIN, M. A., M. D., F. R. C. P., Late Fellow of Trinity College, Cambridge, Consulting Obstetric Physician to Guy's Hospital, Late President of the Obstetrical Society of London, etc. Sixth Edition, Much Enlarged. With 284 Illustrations. Philadelphia: P. Blakiston's Sons, 1012 Walnut Street. 1903. Pp. viii-695. [Price \$5.00 net].

The Nature of Man. Studies in Optimistic Philosophy. By ELIE METCHNIKOFF, Professor at the Pasteur Institute. The English Translation Edited by P. CHALMERS MITCHELL, M. A. D. Sc. Oxon, Secretary of the Zoological Society of London. New York and London: G. P. Putnam's Sons. The Knickerbocker Press. 1903. Pp. vii-309. [Price \$2.00].

The Neurological Practice of Medicine. A Cursory Course of Selected Lectures in Neurology, Neurology, Psychology, and Psychiatry; Applicable to General and Special Practice. With 177 Illustrations. After the Author's Class-Room Methods as a Teacher of Students. Designed for Students and General Practitioners of Medicine and Surgery. By CHARLES H. HUGHES, M. D., President of the Faculty and Professor of Neurology, Psychiatry, and Electrotherapy, Barnes Medical College. Former Major and Surgeon-in-Chief of Schofield, Winter, Hickory Street, and McDowell's College Military Hospitals, Superintendent Missouri State Insane Hospital, Acting and Honorary Member Scientific Societies, etc., etc. Member Governing Board of Centenary Hospital, Ex-Member Board of Health and Consultant of City Hospital, Insane Hospital, etc. 1903. Pp. iv-417.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pædiatrics, Obstetrics, Gynæcology, Orthopædics, Pathology, Dermatology, Ophthalmology, Otolaryngology, Rhinology, Laryngology, Hygiene, and Other Topics of Interest to Students and Practitioners, by Leading Members of the Medical Profession Throughout the World. Edited by A. O. J. KELLY, A. M., M. D., Philadelphia; U. S. A. With the Collaboration of WM. OSLER, M. D., Baltimore; JOHN H. MUSSEY, M. D., Philadelphia; JAS. STEWART, M. D., Montreal; J. B. MURPHY, M. D., Chicago; A. MCPHERDAN, M. D., Toronto; THOS. M. ROTCH, M. D., Boston; JOHN G. CLARK, M. D., Philadelphia; JAMES J. WALSH, M. D., New York; J. W. BALLANTYNE, M. D., Edinburgh; JOHN HAROLD, M. D., London; EDMUND LANDOLT, M. D., Paris; RICHARD KRETZ, M. D., Vienna. With Regular Correspondents in Montreal, London, Paris, Berlin, Vienna, Leipzig, Brussels, and Carlsbad. Volume III. Thirteenth Series. 1903. Philadelphia: J. B. Lippincott Company. Pp. viii-305.

A Text-Book on the Practice of Medicine. Designed for the Use of Students. By JAMES MAGOFFIN FRENCH, M. D., Lecturer on the Theory and Practice of Medicine, Medical College of Ohio; Attending Physician, St. Mary's Hospital; Consulting Physician, St. Francis Hospital for Incurables, Cincinnati. Illustrated by Ten Full-Page Plates and Fifty Wood Engravings. New York: William Wood & Company. MDCCCIII. Pp. xix-780.

General Pathology, or the Science of the Causes, Nature, and Course of the Processes of Disease. By Dr. ERNEST ZIEGLER, Professor of Pathology, Anatomy, and of General Pathology in the University of Freiburg in Breisgau. Translated from the Tenth Revised German Edition (Gustav Fischer, Jena, 1901), and Edited by ALDRED SCOTT WARTHIN, Ph. D., M. D., Professor of Pathology and Director of the Pathological Laboratory in the University of Michigan, Ann Arbor, Mich. Profusely Illustrated. New York: William Wood & Company. MDCCCIII. Pp. xxiii-760.

Annual and Analytical Cyclopædia of Practical Medicine. By CHARLES E. DE M. SAJOUS, M. D., Assisted by Corresponding Editors, Collaborators and Correspondents. Illustrated with Chromo-Lithographs, Engraving, and Maps. Volume VI. Philadelphia, New York, Chicago: F. A. Davis Company, Publishers. 1901. Pp. 1,043.

Clinical Treatise on the Pathology and Therapy of Disorders of Metabolism and Nutrition. By Professor Dr. CARL VON NOORDEN, Physician in Chief to the City Hospital, Frankfurt. Authorized American Edition, Translated under the Direction of BOARDMAN REED, M. D., Professor of Diseases of the Gastrointestinal Tract, Hygiene and Climatology, Department of Medicine Temple College; Physician to the Samaritan Hospital, Philadelphia, etc. Part iv. The Acid Auto-intoxications by Professor Dr. CARL VON NOORDEN and Dr. MOHR. New York: E. B. Treat & Company. 1903. Pp. 80. [Price \$5.00].

Traité D'Hygiène. Procédés Rapides de Recherche des Falsifications et Altérations. Par le Dr. P. SMOLENSKY (de Saint-Petersbourg). Traduction du russe par S. Broïdo et A. Zaguelmann. Annotée par L. Guiraud, Professeur D'Hygiène à la Faculté de Médecine de Toulouse et A. Gautie, Préparateur du Cours D'Hygiène à la Faculté de Médecine de Toulouse. Avec 119 Figures. Paris: G. Steinheil, Editeur, Rue Casimir-Delavigne 2. 1904. Pp. xxxii-752.

An Atlas of Human Anatomy. For Students and Physicians. By CARL TOLDT, M. D., Professor of Anatomy in the University of Vienna. Assisted by ALOIS DALLA ROSA, M. D. Translated from the Third German Edition and Adapted to English and American and International Terminology by M. EDEN PAUL, M. D., Brux., M. R. C. S., L. R. C. P. First Section A: The Regions of the Human Body. B: Osteology. (Figures 1 to 377 index.) New York: Rebman Company, Limited, 10 West Twenty-third Street, corner Fifth Avenue. 1903. Pp. 160.

Report of the Commissioner of Education for the Year 1902. Volume I. Washington: Government Printing Office. 1903. Pp. 1176.

Die Progressive Myoklonus-Epilepsie (Unverricht's Myoklonie). von Dr. HERMAN LUNDBORG, Privatdozent der Psychiatrie und Neurologie in Upsala. Herausgegeben mit Unterstützung aus Wilhelm Ekman's Universitätsfonds. Upsala: Almqvist & Wiksell's Buchdruckerei A. G. Pp. 207.

Medical and Surgical Reports of the Boston City Hospital. Fourteenth Series. Edited by HERBERT L. BURRELL, M. D., W. T. COUNCILMAN, M. D., and CHARLES F. WIGHTINGTON, M. D. Boston: Published by the Trustees. 1903. Pp. 178.

Osservazioni Su 203 Casi Di Croup curati all' Ospedale Cotugno. E. Su 80 Intubazioni Eseguite dal Professor ALFONSO MONTEFUSCO, Docente d'Igiene nella R. Università di Napoli. Napoli: Libreria Detken & Rocholl, Piazza Plebiscito. 1903. Pp. 117.

Philadelphia Hospital Reports. Volume V. 1902. Edited by HERMAN B. ALLYN, M. D. Philadelphia: Printed by Maurice H. Power. 1903. Pp. v-178.

The Distribution of Blood-Vessels in the Labyrinth of the Ear of Sus Scrofa Domestica. By GEORGE E. SHAMBAUGH. Instructor in the Anatomy of the Ear, Nose and Throat. Printed from Volume X of the Decennial Publications. Chicago: The University of Chicago Press. 1903. Pp. 20. [Price, \$1.25].

Die Ersten Zeichen der Nervosität des Kindesalters. von Professor H. OPPENHEIM in Berlin. Nach einem im Verein für Kinderforschung gehaltenen Vortrage. Berlin: Verlag von S. Karger. 1904. Pp. 38.

The Medical Record Visiting List or Physicians' Dairy for 1904. New Revised Edition. New York: William Wood & Co.

Miscellany.

Causation of Tuberculosis in Children.—Price-Jones (*Practitioner*, August, 1903) classifies tuberculosis, for the purposes of this investigation, into pulmonary, alimentary, and general. Pulmonary tuberculosis includes disease of the air passages, lungs, and associated lymphatic glands. The bronchial glands being almost invariably involved; many authors believe that the infection must have been caused by the lymphatics from the tonsils and cervical glands, the mucous membrane of the œsophagus, the mesenteric glands, the thoracic duct, or the blood stream. The author shows that the above propositions are untenable, and affirms that primary tuberculosis of the bronchial glands and all the other less simple varieties of pulmonary tuberculosis are caused by infected air conveyed by the respiratory channels, the infection being due to the human variety of the bacillus.

Alimentary tuberculosis caused by food and other swallowed substances which have been infected with tubercle bacilli of the human, bovine, or any other variety, is that form of the disease which involves those parts of the body included in the alimentary system. It includes a number of varieties which depend on the extent of the disease and its probable point of entry. With few exceptions they are all characterized by disease in the mesenteric glands.

General tuberculosis comprises all the possible combinations of the other two groups. It may arise from either of them or independently from both, by extension through the lymphatics, or by the blood stream.

The facilities for infection by the human bacillus tuberculosis are much greater than by any other variety. The analysis of a great mass of clinical material impresses the author with the fact that the source of this disease is probably the polluted air and not the food at all, unless this has been exposed to the tuberculous conditions of its surroundings. The tubercle bacillus is found in the dust of overcrowded rooms and arises from the expectoration and excretions of persons who suffer with tuberculosis. There are many varieties of the bacillus, some of which are noxious and others harmless for human beings; some are readily distinguishable, and others, like the avian and bovine varieties, are less easily differentiated. Until quite recently the bovine variety was supposed to be identical with the human bacillus.

The Anatomy of the Pancreas.—Opie (*Johns Hopkins Hospital Bulletin*, September, 1903) refers to the variety of functions of this organ and the complexity of its structure. In the dissection of 100 injected specimens, he found two ducts in every instance, the common bile duct always joining the duct of Wirsung, and the duct of Santorini entering the intestine alone at a level nearer the pylorus. In a third of all cases it was concluded that the duct of Santorini could not act as an accessory outlet when the duct of Wirsung was occluded. The duodenal orifice of the diverticulum of Vater, the common channel of the pancreatic and common bile ducts, had an average diameter of two and a half millimetres, which shows how readily a calculus may

occlude both ducts. Between the two lobes which constitute the head or duodenal end of the organ is a cleft midway between the two ducts and in contact with the duodenum. An accessory nodule of pancreatic tissue is sometimes found in the submucosa or muscularis of the stomach, duodenum or jejunum.

Among the secreting acini of the organ are round or oval bodies composed of polygonal cells, constituting the so-called islands of Langerhans. It is thought that these bodies have the influence upon carbohydrate metabolism which was formerly attributed to the entire organ. Two important conclusions are reached by the author as the result of his anatomical investigations: 1, that the organ consists of two functionally diverse elements, namely, cells which supply to the intestine important digestive ferments, and cells which have no communication with the ducts of the gland, but are in intimate relation with the blood vessels; 2, that the close anatomical relation of the pancreatic duct with the common bile duct favors the transmission of morbid processes from the liver and bile passages to the pancreas.

Debatable Points in the Treatment of Appendicitis.—Hamaker (*Pennsylvania Medical Journal*, July, 1903) believes that if a given case has mild symptoms it may be treated medically for a day or two, when, if there is no improvement, operation should be performed at once. Before the third, and after the fifth day, the mortality rate is the lowest. Many physicians are now sustaining the surgeons in advocating operation as soon as a clear diagnosis of appendicitis has been made. Relapsing and chronic cases should be operated upon as soon as the patient will allow it. The best incision is the one which is made directly over the appendix, splitting the different layers of muscle until we reach the peritonæum. If there is pus the incision should be made with the view of obtaining the best possible drainage. In most instances the base of the appendix will be most easily and safely traced to its termination when approached from the outer side. The length and the shape (straight or curved) of the incision should be governed by the conditions in each case.

If there is no pus, or if there is an abscess and we are compelled to enter the peritoneal cavity, the appendix should be removed, but if, in an abscess case, the appendix cannot readily be found, or if it is a part of the abscess wall and it cannot be removed without opening the general peritonæal cavity, we should not seek to remove it.

Drainage is required only in pus cases. Medium and large size rubber tubes should be used. Gauze packing is not believed to afford successful drainage, it may cause excessive exudation, ileus, and bowel obstruction. It also favors postoperative hernia. Being a foreign body it interferes with the patient's powers of resistance and may prolong shock. Wicking covered by rubber tissue, or even a glass tube, will furnish good drainage and will leave only a small opening to heal. It is less likely to be followed by hernia than is gauze packing.

Tropical Diseases.—Hewlett (*Practitioner*, August, 1903) refers to the important volume on malaria recently issued by the government of India.

The description of mosquitoes, with their eggs and larvæ are very important. In certain parts of India from 65 to 75 per cent. of children under ten years of age have malarial parasites in their blood, while the adults may be free from infection. Concerning the relation between enlarged spleen and malaria in India, the author finds that (1) A high endemic index in India is always accompanied by a high "spleen rate." (2) A high "spleen rate" may exist in adults, and in children without a corresponding parasite infection. (3) The "spleen rate" in adults is no indication of the prevalence of malaria. (4) The "spleen rate" is entirely influenced by the "parasite rate." As the latter increases or decreases so does the former. Rogers regards malarial cachexia as really malarial and not as due to a secondary infection. The same author finds that the total number of leucocytes is diminished in malaria, but that the large uninuclear variety is relatively increased. From 200 to 300 parasites to the cubic millimetre of blood will usually cause malarial symptoms in England, exposure to cold favoring their development more than warmth and rest.

Concerning treatment, Moore and Allison conclude: (1) Methylene blue will destroy malarial parasites but quinine is more certain to do so. (2) Methylene blue is most useful in chronic cases but has no advantage over quinine. (3) The effects of methylene blue are more unpleasant than those of quinine. (4) When quinine cannot be taken methylene blue may be given. (5) Methylene blue is probably valuable in hæmaturic and hæmoglobinuric fevers on account of its diuretic action. (6) Quinine is the quicker and more certain drug of the two.

Kuhn proposes to use a serum for malaria by subcutaneous injection. He claims radical results. Arrhenal, a preparation of arsenic, has been found less useful than quinine.

Other diseases, considered in this article, are Kala-azar, plague, dengue, mycetoma, bilharzia disease, ankylostomiasis, and sleeping sickness.

Official News.

Public Health and Marine Hospital Service Health Reports:

The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon-General, Public Health and Marine Hospital Service, during the week ending December 18, 1903:

Smallpox—United States			
Place.		Cases.	Deaths.
California—San Francisco	Nov. 29-Dec. 6	1	
Illinois—Belleville	Dec. 5-12	1	
Illinois—Chicago	Dec. 4-11	1	
Louisiana—Baton Rouge	Nov. 28-Dec. 5	1	
Louisiana—New Orleans	Dec. 5-12	2	unreported
Massachusetts—Boston	Nov. 28-Dec. 5	1	
Massachusetts—North Adams	Dec. 5-12	1	
Michigan—Port Huron	Dec. 5-12	1	
New Hampshire—Manchester	Dec. 5-12	2	
New Jersey—Camden	Dec. 5-12	1	
New York—New York	Dec. 5-12	2	
Ohio—Cincinnati	Dec. 4-11	4	
Ohio—Dayton	Dec. 5-12	1	
Ohio—Youngstown	Dec. 5-12	12	
Pennsylvania—Altoona	Nov. 30-Dec. 12	3	
Pennsylvania—Carbondale	Nov. 30-Dec. 7	2	
Pennsylvania—Erie	Dec. 5-12	3	
Pennsylvania—Johnstown	Dec. 5-12	3	2
Pennsylvania—McKeesport	Dec. 5-12	2	
Pennsylvania—Norristown	Dec. 5-12	1	
Pennsylvania—Philadelphia	Dec. 5-12	67	16

Alabama—Ft. Worth	Dec. 5-12	25	
Alabama—Reading	Dec. 7-13	1	
Arkansas—Memphis	Dec. 5-12	29	
Arkansas—Ozark	Dec. 1-7	1	
Wisconsin—Milwaukee	Dec. 2-10	5	
	Dec. 5-12	10	

Smallpox—Foreign.

Colombia—Barranquilla	Nov. 22-29	2	
Brazil—Rio de Janeiro	Nov. 8-15	36	35
Brazil—Guayaquil	Nov. 14-21	1	
Brazil—Lima	Nov. 14-21	1	
Brazil—Paris	Nov. 21-28	1	
Brazil—Rouen	Nov. 1-7	3	
Great Britain—Glasgow	Nov. 27-10	20	3
Great Britain—London	Nov. 14-21	5	
Great Britain—Manchester	Nov. 2-7	1	
Great Britain—Newcastle-on-Tyne	Nov. 2-7	1	
Great Britain—Nottingham	Nov. 21-28	2	
Italy—Catania	Nov. 10-17	4	
Mexico—Mexico	Nov. 1-7	1	
Mexico—Moscow	Nov. 14-21	1	
Russia—St. Petersburg	Nov. 14-21	50	
Russia—Warsaw	Nov. 1-7	1	
Turkey—Constantinople	Nov. 1-7	6	

Yellow Fever—United States

Texas—Laredo	Dec. 8-15	7	2
Brazil—Rio de Janeiro	Nov. 8-15	3	1
Ecuador—Guayaquil	Nov. 21-28	1	1
Mexico—Coahuacoles	Nov. 28-Dec. 5	1	

Cholera—Foreign

India—Calcutta	Nov. 1-14	50	
Japan—Nagasaki	Nov. 10-17	33	18
Straits Settlements—Singapore	Oct. 24-31	35	35

Plague—Foreign

Africa—Cape Colony	Oct. 17-24	2	
Brazil—Rio de Janeiro	Oct. 8-15	40	17
Egypt—Alexandria	Nov. 7-13	1	1
Egypt—Samallut	Nov. 7-13	1	1
India—Bombay	Nov. 3-10	54	46
India—Calcutta	Nov. 1-14	35	35
India—Karachi	Nov. 1-8	7	7
Japan—Yokohama	Oct. 31-Nov. 7	1	1

Public Health and Marine Hospital Service:

Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the Public Health and Marine Hospital Service for the Seven Days ending December 17, 1903:

BAILHACHE, PRESTON H., Surgeon. Detailed to represent the Service at the Convention to Consider the Questions Involved in Mosquito Extermination, to be held in New York, December 16th.

BALLARD, J. C., Acting Assistant Surgeon. Granted leave of absence for five days from December 24th.

BILLINGS, W. C., Assistant Surgeon. Granted leave of absence for fourteen days from December 13th.

BROOKS, S. D., Surgeon. To rejoin station at Savannah, Ga. December 16, 1903.

CARRINGTON, P. M., Surgeon. Three days' leave of absence from December 15, 1903, under paragraph 189 of the regulations.

FOSTER, A. D., Assistant Surgeon. To proceed to Ellis Island, New York, and report to Surgeon G. W. Stoner for temporary duty. December 11, 1903.

GIBSON, R. H., Pharmacist. Granted leave of absence for eight days from December 24th.

GOLDBERGER, JOSEPH, Assistant Surgeon. To report to Director of Hygienic Laboratory for duty. December 8, 1903.

GREENE, J. B., Passed Assistant Surgeon. Upon being relieved at Cleveland, Ohio, by Passed Assistant Surgeon H. S. Mathewson, to proceed to Havana, Cuba, for duty in office of U. S. Consul General, relieving Assistant Surgeon F. E. Trotter. December 16, 1903.

GUIERAS, G. M., Surgeon. Granted leave of absence for three months from December 10th.

IRWIN, FAIRFAX, Surgeon. Granted leave of absence for two days from December 24th.

KERR, J. W., Assistant Surgeon. To proceed to Ellis Island, New York, N. Y., and report to Surgeon G. W. Stoner for duty. December 12, 1903.

LLOYD, B. J., Assistant Surgeon. To proceed to Concord, Cal., for special temporary duty. December 15, 1903.

MAGUIRE, E. S., Pharmacist. Department letter of November 21st, granting Pharmacist Maguire leave of absence for thirty days from November 1, 1903, amended so as to read thirty days from December 1st.

MATHEWSON, H. S., Passed Assistant Surgeon. Relieved from duty at Detroit, Mich., and directed to proceed to Cleveland, Ohio, and assume command of the service at that post, relieving Passed Assistant Surgeon J. B. Greene. December 16, 1903.

PERRY, J. C., Passed Assistant Surgeon. Detailed to represent the Service at the Convention to Consider the Questions Involved in Mosquito Extermination, to be held in New York, December 16th.

RYDER, L. W., Pharmacist. Department letter of December 9th, granting Pharmacist Ryder leave of absence for fifteen days from December 10, 1903, amended to read 15 days from December 7th.

SAFFORD, M. V., Acting Assistant Surgeon. Granted leave of absence for four days from December 14, 1903, under paragraph 210 of the regulations.

STEARNS, H. H., Acting Assistant Surgeon. Granted leave of absence for fourteen days from December 18th.

STIMSON, A. M., Assistant Surgeon. Granted leave of absence for seven days from December 8, 1903, under paragraph 191 of the regulations.

TROTTER, F. E., Assistant Surgeon. Upon being relieved from duty at Havana, Cuba, by Passed Assistant Surgeon J. B. Greene, to proceed to San Francisco, Cal., and report to medical officer in command for duty and assignment to quarters. December 16, 1903.

VON ELDORF, R. H., Passed Assistant Surgeon. Relieved from duty at Laredo, Texas, and directed to proceed to Washington, D. C., and report at Bureau. December 15, 1903.

WHITE, J. H., Surgeon. Granted leave of absence for five days from December 17th.

Board Convened.

Board convened to meet at Philadelphia, Pa., December 17, 1903, for the physical examination of an officer of the Revenue Cutter Service. Detail for the board—Surgeon FAIRFAX IRWIN, chairman. Assistant Surgeon W. A. KORN, recorder.

Navy Intelligence:

Official List of Changes in the Medical Corps of the United States Navy for the week ending December 19, 1903:

No orders have been issued during this period.

Army Intelligence:

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the United States Army for the week ending December 19, 1903:

CRABTREE, GEORGE H., First Lieutenant and Assistant Surgeon. Granted fifteen days' leave of absence from December 15, 1903.

DE WITT, WALLACE, First Lieutenant and Assistant Surgeon. Granted twenty days' leave of absence from December 15, 1903.

EKWURZEL, GEORGE M., First Lieutenant and Assistant Surgeon. Ordered to New Haven, Conn., for special duty during the absence of Assistant Surgeon De Witt.

HANSELL, H. S., First Lieutenant and Assistant Surgeon. Granted one month's leave of absence from December 16, 1903.

HARRIS, JESSE R., First Lieutenant and Assistant Surgeon. Left Fort Myer, Va., with Second Cavalry, en route to Manila, P. I.

HARTSOCK, F. M., First Lieutenant and Assistant Surgeon. Ordered to report to the president of the examining board at the Army Medical Museum, Washington, D. C., for promotion.

KENDALL, WILLIAM P., Major and Surgeon. Ordered to proceed to New York, N. Y., to consult with the medical supply officer in regard to purchase of instruments and equipment for the new operating room at the U. S. General Hospital, Presidio of San Francisco, Cal.

MAUS, LOUIS M., Lieutenant-Colonel and Deputy Surgeon-General. Reported for duty at Fort Riley, Kan.

MORSE, A. W., First Lieutenant and Assistant Surgeon. Left Walla Walla, Wash., en route to take station at Vancouver Barracks, Wash.

PURVIANCE, W. E., First Lieutenant and Assistant Surgeon. Granted two months' leave of absence from December 16, 1903.

RUSSELL, F. F., First Lieutenant and Assistant Surgeon. Left San Francisco, Cal., on completion of examination for promotion, en route to station at Fort Wingate, New Mexico.

SHOCKLEY, M. A. W., First Lieutenant and Assistant Surgeon. Leave of absence extended one month.

VAN DUSEN, JAMES W., First Lieutenant and Assistant Surgeon. Leave of absence on account of sickness extended one month.

Promotions.

The following first lieutenants have been promoted to the rank of captain and assistant surgeon, from December 12, 1903: JOSEPH H. FORD, ELMER A. DEAN, SAMUEL L. STEER, WILLARD F. TRUBY, and L. P. WILLIAMSON.

Births, Marriages, and Deaths.

Married.

BROWN—TOMPKINS.—In New York, N. Y., on Friday, December 11th, Dr. Edward Woodhull Brown and Miss May Tompkins.

CAMPBELL—WALLIS.—In New York, N. Y., on Thursday, December 10th, Dr. Robert F. Campbell and Miss Gertrude Wallis.

DOOLITTLE—SPENCER.—In New York, N. Y., on Wednesday, December 9th, Dr. Willard Foster Doolittle and Miss Grace Spencer.

FRIEDMAN—HOLZ.—In Bellefonte, Pennsylvania, on Wednesday, November 25th, Dr. Louis Friedman and Miss Edyth Frances Holz.

Died.

ASHLEY.—In Cleveland, Ohio, on Wednesday, December 9th, Dr. C. D. Ashley, in the eighty-second year of his age.

CAHALAN.—In Detroit, Michigan, on Friday, December 11th, Dr. James Cahalan, in the fifty-fourth year of his age.

CRONK.—In Baltimore, Maryland, on Sunday, December 13th, Dr. Corydon Pirnie Cronk, in the forty-sixth year of his age.

DECKER.—In Buffalo, N. Y., on Friday, December 11th, Dr. Oscar F. Decker, in the sixty-fifth year of his age.

ENSIGN.—In Erieville, N. Y., on Thursday, December 3rd, Dr. Enos L. Ensign, in the seventy-fourth year of his age.

FISHER.—In Ann Arbor, Michigan, on Monday, November 30th, Dr. Wilfred Stedman Fisher, in the twenty-seventh year of his age.

FULS.—In Cincinnati, Ohio, on Thursday, December 10th, Dr. Otto Fuls, in the sixty-first year of his age.

HIGGINS.—In Cortland, N. Y., on Friday, December 18th, Dr. Francis W. Higgins, in the fifty-second year of his age.

HORINE.—In Americus, Georgia, on Tuesday, December 8th, Dr. George Horine, in the forty-eighth year of his age.

HOWELL.—In Atlantic City, New Jersey, on Saturday, December 12th, Dr. Samuel B. Howell, in the seventy-third year of his age.

JONES.—In Charlottesville, Virginia, on Thursday, December 10th, Dr. John Taliaferro Jones, in the seventy-ninth year of his age.

KOCH.—In Rochester, N. Y., on Sunday, December 13th, Dr. Henry Koch, in the fifty-eighth year of his age.

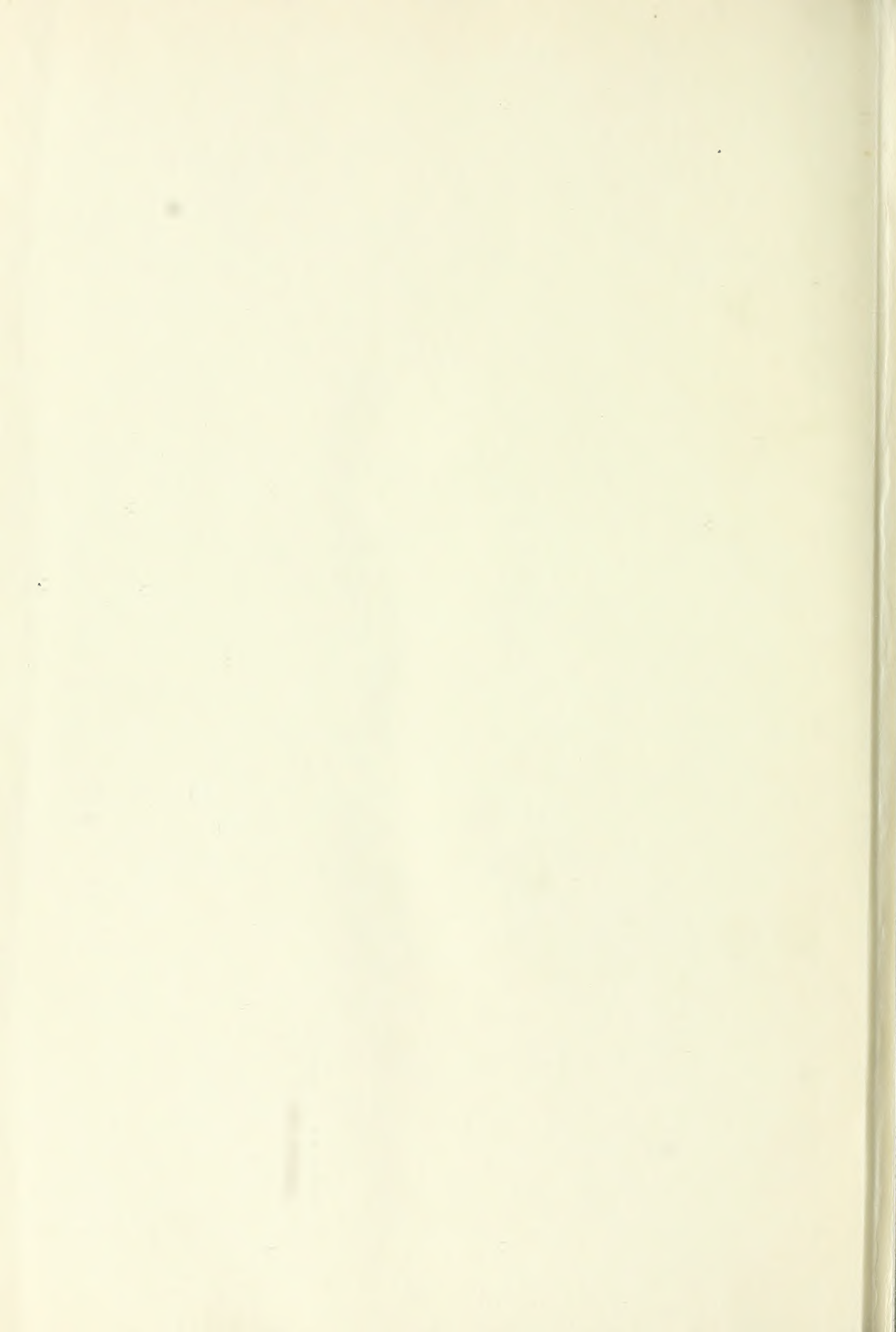
O'CONNOR.—In Denver, Colorado, on Friday, December 11th, Dr. T. C. O'Connor, in the forty-sixth year of his age.

O'LEARY.—In Brooklyn, N. Y., on Saturday, December 12th, Dr. Cornelius M. O'Leary, in the sixty-fourth year of his age.

RIDLEY.—In La Grange, Georgia, on Monday, December 14th, Dr. C. B. Ridley.

ROTHACHER.—In Detroit, Michigan, on Wednesday, December 9th, Dr. Fred J. Rothacher, in the thirty-seventh year of his age.





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